Approved March 14, 1989
Date

MINUTES OF THE SENATE COMMITTEE ON EDUCATION.

The meeting was called to order by SENATOR JOSEPH C. HARDER at
Chairperson

1:30 ~~a.m.~~/p.m. on Thursday, March 2, 1989 in room 123-S of the Capitol.

All members were present except:

Senator Parrish, excused

Committee staff present:

Mr. Ben Barrett, Legislative Research Department
Mrs. Avis Swartzman, Revisor's Office
Mrs. Millie Randell, Committee Secretary

Conferees appearing before the committee:

UPDATE PRESENTATION - Agriculture in the Classroom

Ms. Mardelle Pringle, Chairman, Kansas Foundation for Agriculture in the Classroom
Ms. Becky Koch, Administrator, Kansas Foundation for Agriculture in the Classroom

SB 118 - Elementary schools, requiring the teaching of science and the arts. (Karr et al.)

Proponents:
Dr. John Stefano, Director of Theatre, Emporia State University; board member, The Kansas Alliance for Arts Education
Mrs. Charlotte McDonald, Kansas Association of Teachers of Science
Ms. Diane L. Miller, Principal, New York Elementary School, Lawrence
Dr. John R. Staver, Director, Center for Science Education, Kansas State University
Dr. Larry G. Enochs, Assoc. Director, Center for Science Education, Kansas State University
Ms. Mary Halverstadt, President, Kansas Dance Network
Ms. Joyce Wolf, Kansas Audubon Council
Mr. David E. Circle, Past President, Kansas Music Educators Association
Ms. Alicia Fickel, Past President, Kansas Art Education Association
Ms. Carolyn Schmitt, President, Kansas-National Education Association
Ms. Brilla Highfill Scott, Assoc. Executive Director, United School Administrators of Kansas
Ms. Ann Evans, board member, Association of Community Arts Agencies of Kansas
Kansas Arts Commission (written testimony only)

Opponents:
Mr. John Koepke, Executive Director, Kansas Association of School Boards

Following a call to order, Ms. Mardelle Pringle, Chairman, Kansas Foundation for Agriculture in the Classroom, informed the Committee that the Ag in the Classroom program was founded in 1983 to help educate K-12 students by integrating information about agriculture into the courses already being taught in school and to teach children how strongly agriculture is interwoven into their lives. She noted two important projects of the Foundation, the Curriculum Guide and the summer courses being offered in Manhattan and Kansas City to K-12 teachers.

Ms. Pringle introduced Ms. Becky Koch, the Foundation's administrator, who described projects undertaken by the Foundation during the past year. (Attachment 1)

SB 118 - The Chair recognized the first proponent of SB 118, Dr. John Stefano, Director of Theatre, Emporia State University. Dr. Stefano, speaking on behalf of the Kansas Alliance for Arts Education, of which he is a board member, explained that SB 118 would add the words "science

and the arts" to K.S.A. 72-1101, the basic law covering required subjects in the elementary schools. (Attachments 2 and 3)

Mrs. Charlotte McDonald, Past President, Kansas Association of Teachers of Science, urged passage of SB 118, because "lifetime motivation and interest begin at a young age". (Attachment 4)

The principal of the New York Elementary School, Lawrence, Ms. Diane L. Miller, affirmed that "we have the responsibility to do what is within our power to insure that adequate programming exists within the elementary educational system". (Attachment 5)

Dr. John R. Staver, Director, The Center for Science Education, Kansas State University, in support of SB 118, maintained that "elementary school science is a subject equal in importance to the traditional 3 R's of elementary school, reading, writing, and mathematics". (Attachment 6)

The Associate Director of the Kansas State University Center for Science Education, Dr. Larry G. Enochs, stated his support for SB 118, because "it is a deterrent to the growing level of scientific illiteracy in our nation". (Attachment 7)

Ms. Mary L. Halverstadt, President, Kansas Dance Network, said she supports SB 118 as a representative of the dance community within the state of Kansas, because it is the consensus of this group that the "bill would create a better environment for all to live, work, and grow". (Attachment 8)

Ms. Joyce Wolf testified that the Kansas Audubon Council, representing 5,000 members, voted unanimously to support the addition of science to the elementary curriculum, as stated in SB 118. (Attachment 9) Ms. Wolf also described a personal situation to call importance to the passage of SB 118.

Passage of SB 118 would help materialize a goal objective of the State Department of Education: "To encourage USD's to include an arts requirement as part of their elementary curriculum", stated Mr. David E. Circle, Past President, Kansas Music Educators Association. (Attachment 10)

Ms. Alicia Fickel, Past President, Kansas Art Education Association, stated that "arts education in schools has emerged as a significant part of a balanced education of American youth". (Attachment 11)

The president of Kansas-National Education Association, Ms. Carolyn Schmitt, stated that SB 118 would elevate the status of science and arts, both of which are a part of the basic core curriculum needed in our elementary schools. (Attachment 12)

Ms. Brilla Highfill Scott, Associate Executive Director, United School Administrators of Kansas, also expressed support for SB 118 in her testimony found in Attachment 13.

Ms. Ann Evans, member of the Board of Directors, Association of Community Arts Agencies of Kansas, encouraged passage of SB 118 and gave reasons why arts education is important in her testimony found in Attachment 14.

Written testimony in support of SB 118 was submitted by the Kansas Arts Commission. (Attachment 15)

Speaking in opposition to SB 118, Mr. John Koepke, Executive Director, Kansas Association of School Boards, stated that it is not the policy of his organization that curriculum should be mandated. Passage of SB 118, he maintained, would create an unnecessary addition to the statutes and an opportunity for misinterpretation of terms. Hearing no further response from conferees, the Chairman declared the hearing on SB 118 to be concluded, and he adjourned the meeting.

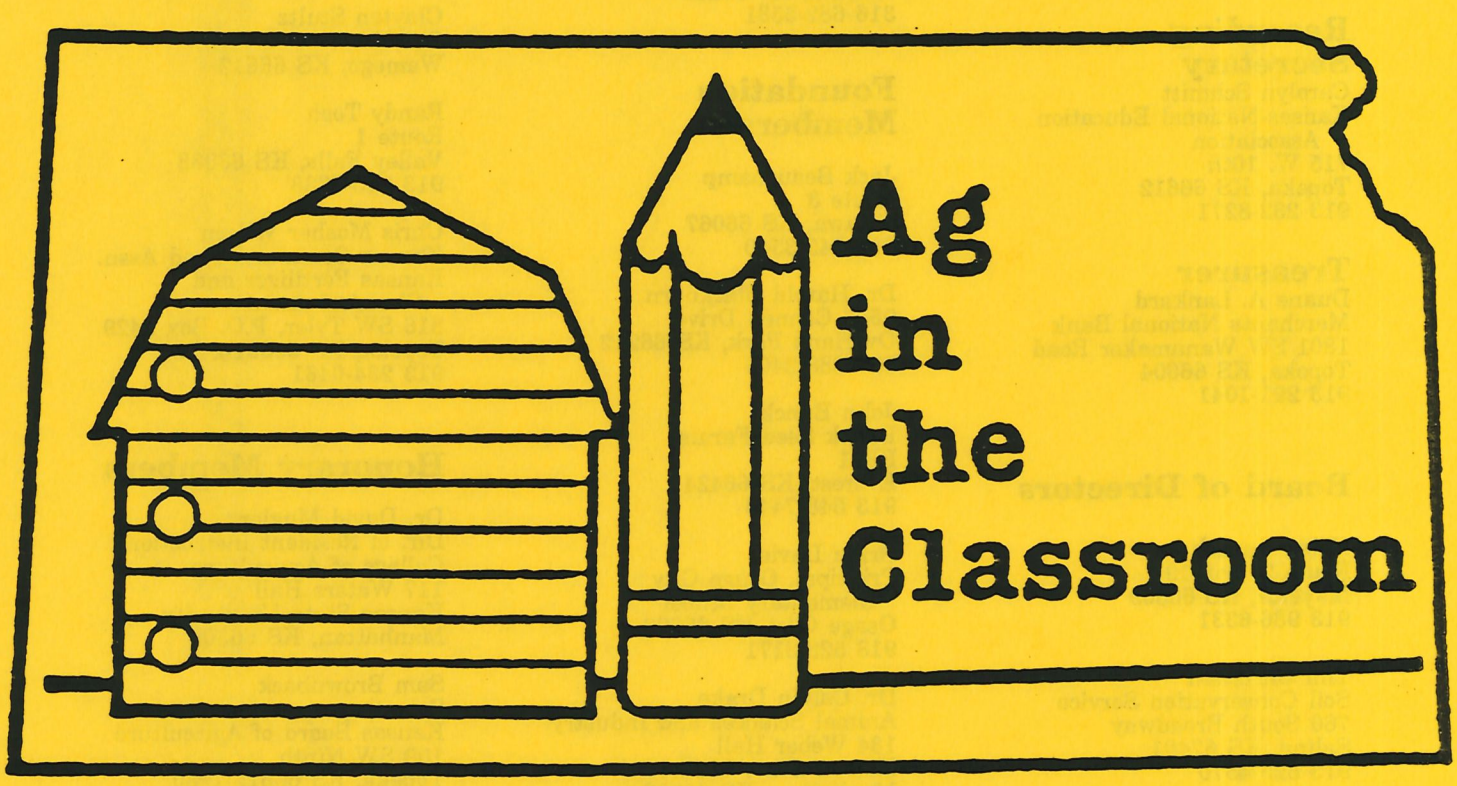
SENATE EDUCATION COMMITTEE

TIME: 1:30 p.m. PLACE: 123-S DATE: Thursday, March 2, 1989

GUEST LIST

NAME	ADDRESS	ORGANIZATION
Duane L. Miller	3128 Lance Ct. Lawrence, Ks.	Lawrence Public Schools
Carolyn Schmidt	715 W. 10th Topeka	KNEA
John Stefano	2847 Rio Vista	Kansas Alliance for Arts Education
John R Stevens	2023 Hunting, Manhattan	Kansas State University
David Circle	1212 W 101	Lenexa, KS Kansas Music Educators Assn
Mary L Habrukott	439 Michigan Lawrence	Kansas Dance Network
Alicia Sickel	512 So. Lincoln, Chanute	Kansas Art Education Assn
Warren Parker	Manhattan	Kansas Farm Bureau
Joyce Wolf	2535 Arkansas, Lawrence	Ks. Audubon Council
Craig Grant	Topeka	K-NEA
Pat Mah	" "	DOB
Judith Radocy	2520 Arkansas, Lawrence	Kansas Arts Commission
Ann Evans	1636 Louisiana, Lawrence	AOAAK. KS assn of Teachers of Science
Charlotte McDonald	11917 W. 143rd Olathe	
LARRY G. ENOCHS	200 N. Delaware, Manhattan	Kansas State Univ.

Kansas Foundation for Agriculture in the Classroom 1988 Annual Report



Education
3/2/89
Attachment 1

1988 Kansas Foundation for Agriculture in the Classroom

Chairman
Mardelle Pringle
Kansas Livestock Assn.
Kansas Beef Council
Kansas CattleWomen
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316 537-7833

Vice Chairman
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Kansas State Board of Agriculture Staff
109 SW Ninth
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913 296-3736

Recording Secretary
Carolyn Schmitt
Kansas-National Education Association
715 W. 10th
Topeka, KS 66612
913 232-8271

Treasurer
Duane A. Lankard
Merchants National Bank
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Topeka, KS 66604
913 291-1041

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Barbara L. Moyer
Kansas Farm Bureau
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Rep. Jo Ann Pottorff
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316 682-5581

Foundation Members

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Ottawa, KS 66067
913 242-3540

Dr. Harold Blackburn
9543 Connell Drive
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913 888-2406

John Bunck
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Principal, Osage City Elementary School
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Sen. Don Montgomery
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Mildred Sharp
Sharp Brothers Seed Co.
Healy, KS 67850
316 398-2201

Nancy Spiegel
Women Involved in Farm Economics
Box 22
Formoso, KS 66942
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Clayton Stultz
712 Vine
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Randy Tosh
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913 945-3738

Chris Mosher Wilson
Kansas Grain and Feed Assn.
Kansas Fertilizer and Chemical Assn.
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Topeka, KS 66601-2429
913 234-0461

Honorary Members

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Sam Brownback
Secretary
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109 SW Ninth
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Dr. Lee Droegemueller
Commissioner of Education
Kansas Dept. of Education
120 East 10th
Topeka, KS 66612

Kansas Foundation for Agriculture in the Classroom

In a 1985 assessment, the Kansas Foundation for Agriculture in the Classroom learned that only 30 percent of Kansas sixth graders know our state's wheat is harvested in the summer, just 28 percent of the eighth graders understand the Homestead Act and fewer than 11 percent of the 11th graders realize that beef production is the No. 1 industry in Kansas.

These findings reinforced the need to carry out the foundation's purposes:

1. To provide for Kansas students an understanding and appreciation of the food chain which is the foundation of human life, and
2. To promote the well-being of agriculture as a necessary forerunner to the well-being of America.

The Kansas Foundation for Agriculture in the Classroom was founded in 1983 to help educate K-12 students by integrating information about agriculture into the science, math, English, social studies, art, music and other courses already taught. This integration teaches children how the food, fiber and forestry of agriculture are strongly interwoven into their lives.

This agricultural literacy is based on six concepts:

Agriculture is...

...the business that provides our food, clothing and shelter.

...interdependent with the well-being of society in Kansas, the United States and the world.

...a vital dynamic system shaped by research and development.

...influenced by government.

...interdependent with the environment and uses natural resources.

...historically significant.

Kansas Foundation for
Agriculture in the Classroom
124 Bluemont Hall, Kansas State University
Manhattan, KS 66506
(913) 532-7946

Fran Parmley, Administrator to July 1
Becky Vining Koch, Administrator since August 1
Leah Knipp, Secretary

1988 KFAC Highlights

Summer Courses

Integrating Agriculture into the Classroom was offered to K-12 teachers through Kansas State University for the fourth year. For two weeks in June on the Manhattan campus, 15 teachers learned about agriculture and how they can integrate this information into their classes. The course included presentations by KSU faculty members, agricultural producers and agribusiness people plus tours, field trips and hands-on experiences.

Topics were as diverse as Insects: Agricultural Partners, Teaching Creatively, Animal By-Products and Economic Issues in Agriculture. The teachers also visited the KSU flour mill, veterinary medicine complex and plant pathology lab plus spent a day following the steps of the beef industry in the Flint Hills.

Each teacher developed a teaching unit on an agricultural topic to be used with his or her own students which will also be reviewed and distributed to other teachers across the state. The Wonderful World of Seeds, Farm Equipment, Ag Legends and Tall Tales, and Folk Songs in Agriculture are just a few examples of their units.

Though a complete two-week course wasn't held in the urban locality, six Kansas City area teachers chose to complete projects on an independent study program. Their topics included An Introduction to Care of Common Domestic Pets, Whether . . . the Weather and Plant Pleasure.

Scholarships totaling $4,960 from various agricultural organizations made this summer course possible for the teachers.

Ag-Citing Experience at the State Fair

For the third year, KFAC provided a learning experience for children and adults at the Kansas State Fair in September. The Ag-Citing Experience began when fairgoers (primarily but certainly not limited to elementary students) stopped at the Ag in the Classroom booth in the Pride of Kansas building to pick up activity sheets. These pages were designed for preschool/ kindergarten, first and second grades, third and fourth grades, fifth and sixth grades, and high school/adult. The activity sheets guided the students to various agricultural exhibits in the building and across the fairgrounds to answer questions about agriculture. Bright yellow posters in the exhibits explained how many loaves of bread can be baked from the 1988 Kansas wheat harvest, what percent of their income Americans spend on food and why beef is a nutrient dense food, for example.

Completed activity sheets were brought back to the Ag in the Classroom booth where the students received rewards donated by ag organizations and businesses.

Nearly 1,500 people completed the activity at the fair, and an additional 500 took home the activity sheets. Almost 300 teachers stopped by the Ag in the Classroom booth to learn about resources and to register for the drawing of free teaching materials. Through student and teacher sharing, the foundation estimates about 10,000 total students, parents and educators were reached through this activity.

The 10 days of the Ag-Citing Experience were possible only with nearly 200 hours of volunteer help from foundation members, Farm Bureau women, 4-H junior leaders and others in addition to the work of a hired helper and the KFAC administrator.

A kit was developed for a similar Ag-Citing Experience at county fairs, and several groups completed this activity locally.

Adopt a Classroom Program

Farm families may teach children about life on their farms through correspondence with a class. Letters, photos, crop samples and much more can be shared. The students can in turn write letters back to the family, work agricultural math problems suggested by their adopted family or conduct science experiments related to their family's crop or livestock operation. A highlight of the adoption might be a trip to the farm or a visit to the class by the farm family. For the 1988-89 school year, 45 classes from across Kansas were adopted by farm families compared to 12 in 1987-88.

Resource Library

A library of teaching units, audiovisuals, resource materials, posters and other educational materials provides information to teachers. A phone call or note to the KFAC office can lead a teacher to a variety of resources on various agricultural topics at different grade levels.

Teaching units developed by summer course teachers are being reviewed by another teacher before being typeset for distribution across the state. In a cooperative agreement with Nebraska's Ag in the Classroom program, Kansas and Nebraska will share teaching units.

Computer Software Programs

Farm and Food Bytes, an educational computer software program, was developed for Kansas at the foundation's request in 1985, and a national soil and water conservation version was completed in 1987. These programs use language arts, math, science, social studies and ag games to teach fourth to sixth grade students about agriculture. More than 130 programs have been sold to date through the foundation for classes across the state.

KFAC will distribute a new animal agriculture program in 1989 through cooperation with the Kansas Animal Welfare Task Force.

Newsletters

The Grab-Ag newsletter was mailed to nearly 1,000 teachers who have been in contact with the KFAC plus every school librarian/media specialist in the state. This publication updates teachers each semester about how they can integrate agriculture into their classes.

The Ag-Citing News newsletter keeps ag organization members, legislators, the media, KFAC donors and others interested in Ag in the Classroom programs up-to-date on KFAC activities.

SKAVI Camp

KFAC worked with the Southwestern Kansas Association for the Visually Impaired (SKAVI) to carry out a three-day camp in June with an agricultural theme. The 60 handicapped students and counselors felt various grains, made pizza and learned about where each ingredient comes from, visited a farm, ground wheat into flour and listened to rap music about nutrition.

Foundation Administration

After nearly three years of serving the foundation, Fran Parmley left KFAC in June. Becky Vining Koch started as KFAC administrator August 1, serving 7/10 time with the foundation and 3/10 time with the KSU College of Education. Becky received her bachelor's degree in agricultural journalism and master's in ag education, both from Kansas State University. Her master's project was the 1985 assessment of students' knowledge of Kansas agriculture, and she served as a foundation member while employed at the Kansas Wheat Commission.

KFAC Annual Meeting

Bob Helgesen, head of the KSU entomology department, presented a summer course sampler at the KFAC annual meeting. Using hissing cockroaches, insect collections and activity pages, Helgesen illustrated how he works with summer course teachers to help them share insects with their students. Thirty-four foundation members, donors and guests attended the Nov. 17 meeting in Manhattan.

In-Service Training

Teachers who have taken the summer course conduct in-service training for other teachers to share how to integrate agriculture into their classes.

American Royal

KFAC cooperated with the Missouri Agriculture in the Classroom program to develop an activity similar to the Ag-Citing Experience at the American Royal. KFAC also provided ideas for tours and teacher resources and presented The Giant Cheeseburger demonstration for visitors.

Day on the Farm Kit

A packet of ideas and posters for those who want to plan and host a farm tour was developed by KFAC and has already been used by FFA chapters, 4-H groups, Farm Bureau Women, individuals and others.

KFAC Exhibits and Programs

To reach both educators and ag resource people, in 1988 the foundation hosted exhibits or presented programs at:

Agriculture Day activities at the capitol
Kansas-National Educational Association convention
Kansas Farm Bureau annual meeting
Rural and Small Schools Conference at KSU
American Royal
Kansas State Fair Pride of Kansas Building stage
Kansas CattleWomen annual meeting
Kansas WheatHearts annual meeting.

National Ag in the Classroom Activities

In June, Edie Dahlsten of Kansas Farm Bureau Women represented KFAC at the national AITC meeting in Washington, D.C. This gathering provided the sharing of ideas about teaching materials, fund raising, utilizing the media and much more.

In September, KFAC chairman Mardelle Pringle took part in a U.S. Department of Agriculture evaluation of the AITC program in Las Vegas.

1988 Financial Report

Kansas Foundation for Agriculture in the Classroom

January 1, 1988 - December 31, 1988

Beginning Balance	$11,326.47
Income	
Donations	$16,671.86
Sales of Materials (software, teaching units and curriculum guides)	$433.00
Interest	$537.30
Reimbursements	$731.12
State Matching Grant	$28,107.25
Total Income	**$46,480.53**
Expenses	
Summer Course (scholarships and expenses)	$6,235.17
State Fair (supplies, travel and hired help)	$1,613.53
Curriculum Development and Programs (newsletters, intern, travel and software)	$2,718.33
Communications and Office Supplies (phone, postage and office supplies)	$4,185.01
Salaries (administrator, office assistant, student help)	$32,814.93
Bank Charges	$80.80
Miscellaneous (meeting and chairman's expenses and reimbursements)	$2,664.67
Total Expenses	**$50,312.04**
	-$3,831.51
Year-End Balance	**$7,494.96**

Publicity

To inform people about Agriculture in the Classroom, KFAC provided news releases that were distributed across the state by KSU News Services. An exclusive story about a Day on the Farm was featured in Grass & Grain, and an overview of the program appeared in KFB News. Specific interviews were featured on WIBW radio and television, Topeka; KKSU extension radio, KSU; KRVN radio, Lexington, Neb.; KBUF radio, Garden City; and KFB Farm Weekend.

National Agricultural Literacy Thrust

In October, the National Academy of Sciences released *Understanding Agriculture: New Directions for Education*. This report pointed out that "Beginning in kindergarten and continuing through 12th grade, all students should receive some systematic instruction about agriculture... Agriculture is too important a topic to be taught only to the relatively small percentage of students considering careers in agriculture and pursuing vocational agriculture studies... An agriculturally literate person's understanding of the food and fiber system includes its history and current economic, social and environmental significance to all Americans." Agriculture in the Classroom was noted in the report as a prime example of carrying this out, and the Kansas foundation's 1985 assessment of students' knowledge of agriculture was quoted.

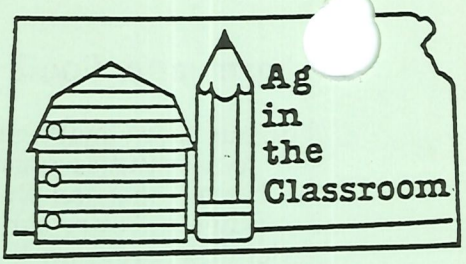
Rep. Pat Roberts joined other Congressmen in pointing out the importance of agricultural literacy Oct. 21, citing KFAC's work. "One of the Kansas foundation's secrets is the volunteerism of farmers, stockmen and agribusinessmen to share their expertise," Roberts said. "Teaching plans for classes ranging from biology to mathematics to history are reviewed by educators to incorporate agriculture into current courses, avoiding the time and resource problems of creating separate curriculums."

1988 Donations

Kansas Foundation for Agriculture in the Classroom

$1,000 or more	Kansas Beef Council Kansas Livestock Association Kansas Farm-City Council Dane Hansen Foundation Kansas Farm Bureau
$500 - $999	Kansas Agricultural Aviation Association
$250 - $499	Lane County Conservation District Jackson County Conservation District Wyandotte County Farm Bureau Finney County Conservation District Nemaha County Conservation District Cowley County Farm Bureau Kansas Agri-Women Stanton County Farm Bureau Reno County Farm Bureau Riley County Farm Bureau Sedgwick County Farm Bureau Shawnee County Conservation District Wyandotte County Conservation District Kansas WheatHearts Kansas CattleWomen Leavenworth County Farm Bureau Dillons Leavenworth County Farm Bureau Kansas Wheat Growers Research Foundation
$100 - $249	Dickinson County Farm Bureau Franklin County Farm Bureau Jefferson County Farm Bureau Pottawatomie County Farm Bureau Dickinson County Conservation District
$10 - $99	County Weed Directors Assn. of Kansas Miami County Farm Bureau James and Helen Cubit Richard and Nancy Spiegel American Royal Association AgPress Duane Lankard Janis Lee Barbara Moyer

Ag-Citing News



...for teachers from the Kansas Foundation for Agriculture in the Classroom

Winter 1989

Summer Courses with Scholarships Offered for Teachers

Integrating Agriculture into the Classroom will again be offered in Manhattan and Kansas City in the summer of 1989. This three-hour graduate credit course from Kansas State University teaches K-12 teachers how to integrate ag information into the classes they teach.

The Kansas City course will be June 12-23 based at the Farmland Industries Research Farm near Bonner Springs, and the Manhattan course will be July 5-14 at KSU.

Both courses will provide an overview of the agriculture industry including its effects on consumers. Speakers, tours, hands-on activities and much more add to the learning experience. A curriculum guide and many educational resources are additional benefits.

In addition to taking an active part in the course, teachers are required to develop a unit on an agricultural topic that can be integrated into a class they teach and shared with other teachers across the state.

Classes are limited to 25 each, and selection is made through applications which are due March 1 or until the courses are full. Those selected receive $250 scholarships for the Manhattan course and $200 for the Kansas City course to help cover tuition and housing or commuting expenses. These scholarships are provided by Kansas agricultural organizations and businesses.

To receive an application or ask questions about the summer courses, call or write the KFAC office.

Celebrate Agriculture Week March 19-25

Agriculture Day is celebrated nationwide the first day of spring, March 20, but Kansas teachers can celebrate all week with agricultural activities for students.

The Kansas Foundation for Agriculture in the Classroom is offering six classroom activities specifically designed for Ag Week. These are:

Grow Your Own Tree
America the Beautiful with Plants
Cattle are More than Meat
Getting to the Core: Our Earth's Soil
Wheat from Field to Food
Real Dairy Foods.

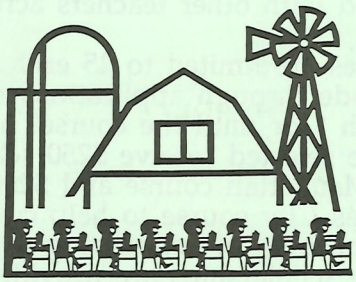
Members of the National Agri-Marketing Association, Farm Bureau Women and other groups are offering to present these activities in classrooms during Ag Week, but to carry these out yourself, send your topic request and a self-addressed stamped envelope to the KFAC office. Lesson plans, directions and some materials will be provided.

In conjunction with Ag Day, Gov. Mike Hayden will declare Agriculture in the Classroom Week in Kansas March 19-25. Plan to celebrate in your classroom.

Farm and Food Bytes Software

Students learn math, science, language arts and social studies plus agriculture through the Farm and Food Bytes educational computer software series. The general agriculture program is specifically geared to Kansas, with the pioneer family traveling to Lindsborg, for example. The soil and water conservation program includes activities that teach about these natural resources. Both programs include student and teacher manuals, fun graphics, instant feedback and interesting learning experiences.

To order, send $31 for the general agriculture program or $36 for the soil and water conservation version to the KFAC office. Specify Apple or IBM version.



Ag Science Magazine

Science of Food and Agriculture is a full-color magazine that relates science to high school students in an interesting way. **Vitamin C to the Rescue, Body Building for Soils** and **Eau de Popcorn** are just a few articles in a recent issue. In addition to integrating information from the magazine into the science curriculum, students might get background for science fair projects.

Science of Food and Agriculture is published by the Council for Agricultural Science and Technology (CAST), a nonprofit scientific and educational association. To receive the four issues during the school year, subscriptions are $6 per year or $10 for two years. Bulk rates are also available.

For more information or to subscribe, contact:

Council for Agricultural Science and Technology
137 Lynn Avenue
Ames, IA 50010-7120
(515) 292-2125.

People Profiles

New KFAC Staff Members

Becky Vining Koch joined KFAC as administrator August 1. Becky received her bachelor's degree in agricultural journalism and master's in ag education, both from Kansas State University. It was Becky's master's project that assessed Kansas students' knowledge of agriculture in a 1985 KFAC project.

Susan Staggenborg started with KFAC as half-time administrative assistant Jan. 1. Susan also has her bachelor's in ag journalism from KSU.

Becky and Susan provide resources, develop materials, solicit funding and carry out other projects of the foundation. They're both eager to work with you to teach your students about agriculture. Please give them a call or drop a note whenever they might be able to provide you with information.

K.C. Teacher Wins Award

Sue Mayberry believes resource conservation is important for urban students as well as rural. The fourth grade teacher at Central Elementary in Kansas City won the Deutz-Allis Teacher-of-the-Year award for conservation education in Kansas presented by the Kansas Association of Conservation Districts.

Mayberry was in the 1987 **Integrating Agriculture into the Classroom** course.

"I got a lot of ideas there, and I just adapted them for my grade level," she said.

Mayberry teaches conservation through science, but she also incorporates the topic into math and English. She believes it's important for her students to learn about conservation because, "If they aren't conscious of the world around them, it's no longer going to be there."

Kansas Foundation for Agriculture in the Classroom
Bluemont 124, Kansas State University
Manhattan, KS 66506
913 532-7946

Becky Vining Koch, Administrator
Susan Staggenborg, Administrative Assistant

Census of Agriculture Lesson Plans

Comparative charts, detailed maps, student activities and transparencies are included in the **Census of Agriculture Lesson Plans.** The unit teaches high school students where the most U.S. soybean farms are located, what the national cattle inventory is and much more.

Order the free booklet from:
Lesson Plans
Agriculture Division, Room 436
U.S. Dept. of Commerce
Washington, D.C. 20233.

Kansas Country Fun

Sammy Soybean, Wilbur Wheat, Cathy Corn and Millie Milo help young children learn about our state's agriculture in **Kansas Country Fun**. A honeycomb maze, beef products word scramble and windmill connect-the-dots are just a few of the activities. Written and designed by Kansans for Kansans, send $3 to:
Kansas Treasures
Route 1, Box 19
Marquette, KS 67464.

Did You Know...

Kansas ranks first among the states in:
all wheat produced,
sorghum grain produced,
sorghum silage produced,
wheat flour milled, and
cattle slaughtered.

Our state is No. 2 in:
red meat production,
acres of cropland,
cattle and calves on farms, and
prime farmland.

History & Economics Uni

Thanks to a donation by the Kansas Beef Council, KFAC has two teaching units available to teachers.

History Matters is a VHS videotape that teaches high school students about the usefulness of a knowledge of history in decision making and about the importance of change in history.

Shaping a Nation teaches middle grade students the basic economic concepts of factors of production, the market system and specialization. Filmstrips, audio cassettes, teacher's guides, activity masters and posters are included.

A limited number are available. Send $2 postage each to the KFAC office.

Agricultural Literacy Necessary, according to NAS Report

"Beginning in kindergarten and continuing through 12th grade, all students should receive some systematic instruction about agriculture."

That's a principle conclusion of the new National Academy of Sciences (NAS) report called **Understanding Agriculture: New Directions for Education.**

"Agriculture is too important a topic to be taught only to the relatively small percentage of students considering careers in agriculture and pursuing vocational agriculture studies. An agriculturally literate person's understanding of the food and fiber system includes its history and current economic, social and environmental significance to all Americans."

Agriculture in the Classroom was cited in the report as an excellent example of how agriculture is incorporated into classes.

In a U.S. House of Representatives special order, Rep. Pat Roberts applauded KFAC.

"One of the Kansas foundation's secrets is the volunteerism of farmers, stockmen and agribusinessmen to share their expertise," he said.

Golden Apple Ideas

How are you integrating agriculture into your classes? **Golden Apple Ideas** will be featured in future Ag-Citing News newsletters to share innovative, interesting ideas with other teachers. What did your students do to celebrate Ag Week? Did you carry out special spring activities?

Drop us a line at the KFAC office by April 1 to tell us how you're integrating agriculture into the classroom. The spring newsletter will highlight new ideas for you.

Dates to Remember

March 1 -- Applications for Integrating Agriculture into the Classroom summer courses due to KFAC office

March 19-25 -- Agriculture in the Classroom Week

March 20 -- Agriculture Day

April 1 -- Golden Apple Ideas due for spring newsletter

June 12-23 -- Kansas City area summer course

July 5-14 -- Manhattan summer course

Kansas Foundation for Agriculture in the Classroom
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Congressional Record

(Proceedings and Debates of the 100th Congress from the Office of Congressman Pat Roberts)

Understanding Agriculture: New Directions for Education

A special order in the House of Representatives on the growing concerns of agriculture illiteracy by Messrs. Roberts of Kansas, Stenholm of Texas, de la Garza of Texas, Marlenee of Montana, Stangeland of Minnesota and Combest of Texas.

Mr. STENHOLM. Mr. Speaker, we take this time today to discuss a subject that is certainly very near and dear to my heart, and to my colleague, the gentleman from Kansas [Mr. ROBERTS] and others who will be participating either in person or with statements which I will interject into the RECORD at the end.

I would say that the topic of our subject today is the Board on Agriculture of the National Research Council Study entitled "Understanding Agriculture: New Directions For Education."

The preface of that report states:

In the 1980s, many forces have challenged American agriculture and education. These forces include demographics; urbanization; rapid gains in worldwide agricultural production capacity; domestic farm and trade policies; lifestyle changes; global competition in basic and high-technology industries; the explosion in knowledge caused by increasingly sophisticated computers, digital equipment, and biotechnological techniques; specialization within the professions; and public expectations about the role of schools, the food supply, and public institutions. A growing number of educators, farmers, and those in agribusinesses and public institutions recognize the need to adjust policies. Our educational system must meet these challenges.

Mr. Speaker, this new report focuses on the two major elements of agricultural education—agricultural literacy (education about agriculture) and vocational agriculture (education in agriculture).

Moreover, the report correctly points out that in the 1980s, many forces have presented new challenges and opportunities for American agriculture and education. In fact, an extensive array of new biotechnologies and information are becoming available which could revolutionize animal and plant products. Through proper education "in" and "about" agriculture, the successful adoption of these promising technologies can become reality and thereby provide the means for shoring up America's lagging ability to compete in the international marketplace.

The pursuit of public education, at all levels, is a particularly American idea—especially the conviction that educational opportunity must be universally available, and that educational excellence must be consistently sought.

We must recognize that agriculture is too important to be taught only to the small percentage of students considering careers in agriculture and pursuing vocational studies. In fact 4.5 percent of all of our students at the secondary level are pursuing any studies of agriculture at all. All students, regardless of their career goals or whether they are urban, suburban, or rural, should receive some systematic instruction about agriculture. Subsequently, those who are literate about agriculture have some basic knowledge of food and fiber production and what impact agriculture has on their health.

It seems a very long time ago and then not so long ago that I completed my tenure in the Future Farmers of America and was honored in receiving the coveted American Farmer Degree, the highest degree that you can receive.

Then going on to college, graduating from Texas Tech University with a masters degree in agricultural education and then teaching agriculture for 3½ years.

I am proud to have been involved in a program designed to help prepare high school students for a successful entry into the most dynamic industry in America.

Moreover, the vocational agriculture program that I know has been especially important in establishing a sense of pride, responsibility, citizenship and leadership among its members. Granted, some changes and modifications are needed in bringing about new and revised programs and skills, but the fundamental soundness remains.

Today, no other industry offers a broader, more complex array of challenges than agriculture. It is an open field for those interested in the advancement of science and technology as well as involvement in key domestic and world issues.

Mr. Speaker, the opportunities are great today, not perhaps so much to enter into farming agriculture as a vo-

cation, but let us not forget the 20 percent of all of those who labor and work in the United States in any shape, form or fashion today are in fact involved in agriculture to one degree or another. And as the bumper sticker that makes its way around the farm country so aptly says, "If you eat, you are involved in agriculture." So it is with this in mind that I applaud the NRC Board on Agriculture's willingness and commitment to analyze and submit specific findings, conclusions, and recommendations regarding what agriculture education is and what it should become at the secondary level to maintain and enhance our agricultural industry competitiveness.

Mr. Speaker, with these opening remarks, I am now very happy to yield to my friend and colleague, the gentleman from Kansas [Mr. ROBERTS].

Mr. ROBERTS. Mr. Speaker, I thank the gentleman for yielding, and I want to thank him for taking this special order to discuss a most important topic.

Mr. Speaker, it is most appropriate and important that those of us who serve on the House Agriculture Committee take this time to address a problem that faces not only our farmers and stockmen and agribusiness throughout America but our Nation's consumers as well.

The problem really is a paradox—our farmers and ranchers or what we call the food and fiber industry has been so successful, most citizens know very little in regard to production agriculture and just as important the role agriculture plays in the health and well being of this Nation.

Now, as my friend and colleague from Texas mentioned, the Board on Agriculture of the National Research Council has published its report, Understanding Agriculture: "New Directions for Education." And, Mr. Speaker, the findings of this report accurately identify serious concerns that many of us have been expressing for some time—there are a great many Americans—from young people to senior citizens and I might add more than a few in this Congress—who do not understand the vital role of agriculture in their daily lives.

It is time we begin a strong, coordinated initiative to expand and enhance the agriculture education system. As we move forward in this effort, it is essential that equal attention is focused on education about agriculture and education in agriculture.

Many young people interested in a career in agriculture have been helped toward their goals through elementary and secondary education curriculums such as the Future Farmers of America and youth programs such as 4-H. In addition, land-grant universities and other colleges throughout the country provide more specialized and indepth education for students who plan to devote their lives to agriculture.

Unfortunately, in an industry that represents 20 percent of the gross national product, precious little attention has been focused on the 97 percent of the population whose closest association with agriculture is a trip to the grocery store. As a nation, we have diluted the importance of agriculture to our daily existence to the point its viability is no longer considered a priority for the welfare of America.

The Council's report highlights the need for an aggressive education effort to teach our urban neighbors and more than a few of our rural neighbors about agriculture. I'm proud to say that one of the recommedations of the report is up and running in Kansas. Four years ago, a concerned group of producer associations, university and State officials formed the Kansas Foundation for Agriculture in the Classroom, the first of its kind in the Nation.

Two years ago they completed an agriculture awareness survey of elementary, junior, and high school students. The results, which are cited in the Council's report, indicate less than 30 percent gave correct answers to basis agriculture questions—and this is in a major agriculture State.

Mr. Speaker, one of the questions that was asked was: Do you know what is the leading industry in regard to the Kansas economy?

Only 10 percent knew that it was the livestock industry. And this is in Kansas.

Mr. Speaker, something needs to be done. Today there are several low-cost projects directed in this area.

One of the Kansas Foundation's efforts in its ongoing efforts is the volunteerism of farmers, stockmen, and agribusinessmen to share their expertise. Teaching plans for classes ranging from biology to mathematics to history are reviewed by educators, many retired, to incorporate agriculture into current courses, avoiding the time and resource problems of creating separate curriculums.

For example, biology students can learn the fundamental biological processes of plant germination, animal reproduction, genetics, et cetera, by studying farm production cycles. Abstract mathematics is made clearer by learning how farmers use algebra to calculate seed and fertilizer needs and amortize production costs, or use geometry to measure field size.

Throughout history, students can be made aware of agriculture's role in the shaping many of the world's major economies in times of peace and war.

Today, Kansas is one of many States with cooperative efforts in place to teach young people about agriculture. The USDA is expanding its role as an information resource to share data and successful projects with many areas of the country. These efforts are carrying over into programs within agriculture to better prepare students interested in careers to meet the high technology, economic and environmental challenges of agriculture in the 1990's and beyond.

But the effort to increase agriculture literacy has only begun. Congress must face its responsibility in this arena, or we risk damaging one of our most precious resources—a reliable, healthy, and low cost supply of food and fiber.

Agriculture is an essential part of this Nation's social and economic structure on a global basis. The Council's report has identified the problem areas. It is up to us to take this information and meet the challenge of spreading agriculture's vital message.

Mr. Speaker, I thank the gentleman for taking this special order.

(Mr. ROBERTS asked and was given permission to revise and extend his remarks.)

Mr. STENHOLM. Mr. Speaker, I thank my friend, the gentleman from Kansas, for participating in this special order.

Mr. Speaker, I would just make a couple of additional comments on why we take this time today and why we believe this report, "Understanding Agriculture: New Directions for Education," is so critical for us today to look and examine. This is not just another study to be talked about once and then to be laid aside.

In the 1920's and 1930's, 30 percent of our population in the United States were in fact farmers. Today it is 2.2 percent. Therefore, it would suggest to even a biased ex-agriculture teacher that changes must occur on the vocational side of training about agriculture, about how to be a better farmer and what that means to us here on a daily basis. The challenges are there, and they are being met from the standpoint of the Future Farmers of America, an organization whose record speaks for itself. But also let me point out that the polls, if you please, show that they peaked in numbers of members in 1976 and 1977 with 697,500 students enrolled in our schools throughout the United States. That was their peak. Today it has declined, according to the last figures we have, to 525,000.

My point is that in fact there are fewer and fewer students having the opportunity to learn anything about our most basic industry. There are fewer and fewer farmers today, and we may arrive at a time 10 or 20 years from today when those of us who have the privilege of serving in this body cannot say, as so many of us can say today and are able to say today, that we have some roots back to the farm, some roots back to agriculture, some basic understanding of agriculture.

By the very nature of the changing times in the United States, that will make it very difficult in the future for us to do that unless our educational system makes some effort to see to it that in fact more, if not all, of those who study in the school systems of the United States have some opportunity to learn something more about our basis industry.

Mr. Speaker, I see that now the chairman of the Committee on Agriculture, the gentleman from Texas [Mr. DE LA GARZA] has arrived, and I yield to him at this time.

Mr. DE LA GARZA. Mr. Speaker, I thank my distinguished colleague for yielding to me in order that I might join him and my other colleagues in discussing this very important issue of education and a new direction on agriculture.

First, let me say that I think probably the first step we should take is to have people understand what agriculture is and what it is that we do. I think we begin by taking the fact that agriculture and everything in agriculture is the largest consumer group in the United States of America and perhaps in the world, and when we think of the jobs related to agriculture, perhaps 20 percent of all the jobs in the United States in one area or another are related to agriculture.

But the different times and the changes in our society and the direction in which we are going demand that we do more.

I want to commend, for example, the 4-H and the FFA, the Future Farmers of America. We have very close contacts with this group, and that is a nucleus of outstanding young men and woman in the United States of America who have done a tremendous amount of good work.

Recently we had group here working with what they call BOAC, Building Our American Communities. The youngsters have projects that they work on. Perhaps one of the exemplary projects I might mention at this time is to identify the direction we should be going, because some people ask, is there a future in American agriculture? Well, a couple of years ago one of the projects taken on by the youngsters in a small town in Oregon was a reforestation project, and when I asked the young man who was the sponsor of the project in that FAA chapter, "When will you harvest the seedlings that you are now planting?" He said, "Oh, I dont know; 50, 60, 70 years from now."

This exemplifies that chapter and the thinking of that young man, because perhaps FFA and that young man were thinking way, way ahead in the future and had confidence in the future.

But what we speak of here is a multiplicity of things. The schools need to have agriculture as part of the curriculum, not just something off in the back room or in the back of the school yard where you have vocational education or a little meeting room for the FFA or the 4-H. It should be a part of the basic standard curriculum.

Secondly, beginning with adults, we know it is said that there are people out there who think that milk comes out of a carton, that peas come out of a can, and that we just go to a supermarket and ring a little bell and then they bring us whatever cut of meat we would like, chicken or pork or lamb. There are people in our enlightened society like that now. So where do we begin to correct this misconception or inaccuracy or failure in the cultural development of our populace?

We begin in the school, and we begin with the youngsters. We ask, what are the nutritious foods that we should eat? How do we differentiate a cow from a deer?

A few years back one of my secretaries brought one of our youngsters that I had taken to Texas to visit with me so he could see a few things. I had a mounted deer head in my office, and he looked at it and he said, "Cow?"

That is what his understanding was of anything with horns.

This is the minimal of what we can do.

I commend the gentleman for taking this time and for reminding us of the Research Council's Board report: "Understanding Agriculture, a New Direction of America." This is where we need to go. We need to start with your youngsters in urban and rural neighborhoods, everywhere a youngster is, so he knows for his own good and benefit something about agriculture, so he would know what is the proper nutritional value of the things we eat, and then so he would be able to communicate with his peers in the community. Then that develops to the rest of the community and perhaps to the rest of the Nation, so that we do not lose our link to agriculture and so we know the vocabulary of agriculture and we know where everything comes from.

I do not want to take much more of the time of the gentleman, but there are two basic things about agriculture we should cover: No. 1, the physical body, the machine, not the intellect or the soul, how the good Lord made us in his image and likeness. I am not speaking about that. I am speaking only of the machine. The machine needs only three things for survival, air, water and food. Only the good Lord makes are and water, and only farmers and ranchers make food. That is what it takes for the human physical body to survive.

Then there is the matter of national security. My colleague has listened to me many times on this, and many of my other colleagues have also. But when I was in the Navy, I never got on board a ship. I will cover this very briefly. When I came to Congress, they asked me what they could do for me. I said, "Get me on board a ship."

So I went on a ship, on a carrier, the biggest one I could get. Eventually I asked to get on a submarine. I said, "I want to go on a nuclear-powered submarine." And I did. This is the triad. We can defend our country on the ground, in the air, and on the water, and also on a submarine, under the water. Our adversaries know where our troops are, they know where our planes are stationed, they know where our missiles are, but they do not know where our submarines are. This is what is protecting the peace and security, not only of this Nation but of the Free World.

When I asked the young commander of that ship how long can you keep this submarine under water, he looked at me and said, "That's a military secret." I said, "Oh, come on, you can tell me." He said, "Well, take a guess."

I am thinking of the core of the reactor, the propellant, and I guess 7 years is long, zero is short, and I said 4 years. He said, No, he can keep the submarine under water as long as he has food for his crew. That is the deterrent.

So who is preserving and keeping the peace and security not only of this Nation but of the rest of the free world? The farmers of America, and it is about time that we learn to speak their language.

I thank the gentleman for yielding.

Mr. STENHOLM. Mr. Speaker, I thank the gentleman from Texas, chairman of the Agriculture Committee very much for those pertinent and eloquent remarks that so often, being chairman of the House Agriculture Committee, he is called on to make.

Again, what we have tried to do today is to bring together in a few short words the importance of this particular study, and to show that in fact American agriculture has always been in a state of change, and the concerns of the educational institutions of this country, and the changes this report shows indicate that agriculture will be a part of it.

The FFA is a successful student organization with tremendous leadership and training opportunities for their young people who have the opportunity to participate. The gentleman from Texas, chairman of the committee, mentioned the 4-H program. Again, some 8.5 million young people last year had the opportunity to participate in the 4-H program and in some project in which life usually was a part, and in fact 88 percent of their projects were scientific in nature.

It is this which we must learn to address, to shape and to form into the 1990s and into the year 2000. That is what this study is all about. We commend it to our colleagues for their study and we sincerely thank those who have participated in making the study possible. We have taken this time today to alert a lot of people to the fact of what is happening, what is changing, and what the future of agriculture is going to be, not what it might should be.

Mr. MARLENEE. Mr. Speaker, I am happy to join my colleagues in recognizing the efforts of the board on agriculture of the National Research Council in its recently published study entitled "Understanding Agriculture: New Directions for Education." This study very accurately underscores the vital need to expand our present levels of education not only in agriculture, but also about agriculture.

[redacted] students do not require some massive new program with huge amounts of new spending. They simply require that we recognize the merits of and the need for better educating all Americans about their agricultural heritage and the challenges facing agriculture producers and marketers. Such recognition, coupled with some redirection of existing resources, would allow us to provide at least a modest amount of agricultural education to elementary and secondary school students. It is unfortunate that at the present time the vast majority of American students go all the way through their formal education with virtually no background about agricultural

cation, out let us not forget the 20 percent of all of those who labor and work in the United States in any shape, form or fashion today are in fact involved in agriculture to one degree or another. And as the bumper sticker that makes its way around the farm country so aptly says, "If you eat, you are involved in agriculture." So it is with this in mind that I applaud the NRC Board on Agriculture's willingness and commitment to analyze and submit specific findings, conclusions, and recommendations regarding what agriculture education is and what it should become at the secondary level to maintain and enhance our agricultural industry competitiveness.

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Two years ago they completed an agriculture awareness survey of elementary, junior, and high school students. The results, which are cited in the Council's report, indicate less than 30 percent gave correct answers to basis agriculture questions—and this is in a major agriculture State.

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Mr. Speaker, I see that now the chairman of the Committee on Agriculture, the gentleman from Texas [Mr. DE LA GARZA] has arrived, and I yield to him at this time.

Send individual students or groups to the chalkboard. Give directions and set a time limit. Enjoy! (These ideas may be used by all students on paper.)

1. Have students draw a farm animal (chicken, pig, cow, ect.) on board. See which student has the most complete drawing in 90 seconds.

2. Draw a farm animal picture without lifting chalk away from board.

3. Draw some foods that are always served in various geometric shapes. Ex: bread/squares, crackers/circles.

4. Have class unscramble agriculture related words. Ex: hweat (wheat).

5. List as many types of farming that a group can think of. Ex: dairy, wheat, beef, hog.

6. Draw three parts of an insect. See who can spell all parts correctly.

7. Have students list some seasonal insects and some all year insects. Ex: fall-locust, all year-cockroaches.

8. Have students list products that have honey used in the product name. Ex: Honeynut Cheerios, Honey Grahams.

9. Draw/list the various shapes cereal comes in. Let students bring in examples.

10. Formulate a list of all the different cereals eaten in the morning. Then try to determine each one's main ingredient.

11. List as many nouns as you can that are farm-related words. Set a time limit.

12. List as many ways to eat turkey as you can in 90 seconds. Ex: franks, lunch meat, roast.

13. Name foods that were served at the first Thanksgiving.

14. List some of the responsibilities of a park ranger.

15. Describe the processes that milk undergoes from cow to table. Also bread from wheat field to table.

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Ag in the Classroom

16. See who can make the longest list of wheat products in 90 seconds. Do the same activity with other grains.

17. List all jobs needed in milk and/or bread production.

18. List some products indicative of a particular United States region. Ex: maple sugar/northeast, oranges/southeast.

19. Explore how agriculture and Christmas relate. Have students list the various ways.

20. Using the school menu, list all animals and crops used in producing one lunch.

21. List natural and man-made fibers used in shoes.

22. Diagram students' shoes showing the parts and where each section originated.

23. Have the class pick a team sport. List the ways an animal product is used in that particular sport.

24. Look at the Kansas flag. List agricultural/farming related activities depicted in the seal of Kansas.

25. Name the plants and trees on the school grounds.

*Developed by Elaine Frantz, Oak Grove Elementary, Kansas City, KS.

Getting to the Core

Subject Areas Science and Math

Objectives The student will:

1. understand how much of the earth's surface can actually be used for food production as compared to how much of the earth is ocean, deserts, mountains, etc.
2. be able to make a graph depicting the portion of the earth used to grow food versus the other areas of the earth such as water or various land regions.

Grade Level K-6, modifying to fit appropriate grade level

Resources Contact your local Soil Conservation Service or Conservation District

Background

One of the most important natural resources that covers much of the earth's land surface is soil. All living things depend on it as a source of food, either directly or indirectly.

The amount of land used to produce food remains the same, yet the world population continues to grow. Each generation must use the soil wisely to insure the future for food production to feed the world.

This demonstration uses an apple to illustrate how little of the earth's surface is actually used for food production.

Materials

large apple
paring knife
paper
crayons or colored pencils

Procedure

1. Cut the apple into four equal parts. Three parts represent the area of the earth covered by oceans. The fourth part represents the area of the earth that is land.

2. Cut the land section in half lengthwise. This creates two one-eighth pieces. One of these pieces represents land such as desert, swamp, antarctic, arctic and mountain areas that are not suitable for people to live.

3. The other one-eighth section represents the areas where people can live. Slice this section lengthwise into four equal parts. Three of these 1/32 sections represent the areas of the earth which are too rocky, too wet, too hot or have too poor soils for food production or are occupied by cities, factories and highways. People can live in these areas but may not grow food.

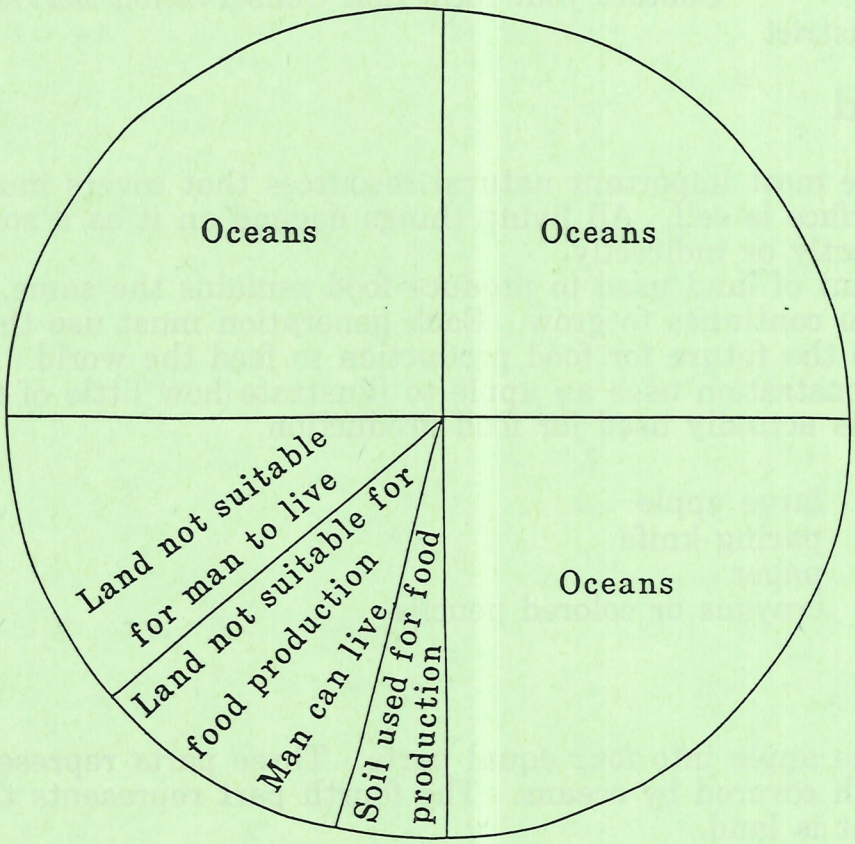
4. Carefully peel the last 1/32 section. This small bit of peeling represents the amount of soil on our earth which is used for production of food that feeds the world.

5. Discuss what this soil is used for. Some possible discussion questions might include:

What would we do if the valuable soil we depend on for food should suddenly disappear?

What do we need to do if the earth's population continues to grow while this amount of valuable soil remains the same?

6. Have the students create a graph depicting the portions of the earth demonstrated in this activity. The graph can be done individually, in small groups or as a class.



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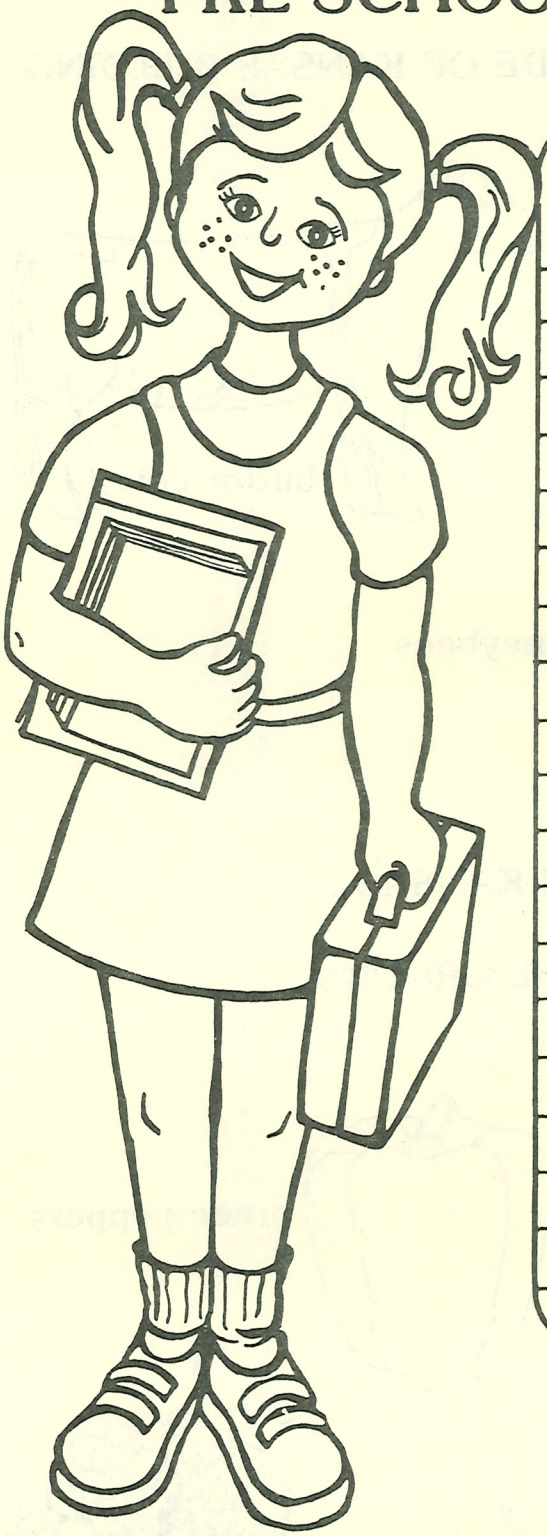
Developed by USDA Soil Conservation Service and Nebraska's Ag in the Classroom Program 1-89

AG-CITING ACTIVITIES FOR PRE-SCHOOL AND KINDERGARTEN STUDENTS



Welcome to the Kansas State Fair! Your visit to the Fair is a good time to learn about Kansas farms that produce the food you eat. You are likely visiting the fair with Mom or Dad, a teacher or someone who can help you read the activity questions and learn about lots of things. The farms in our state grow many things which you will see on display. You can see animals who live on farms. They can help you learn more about Kansas farms. Finding the answers to the questions on these pages is a fun way to learn about farms and where food comes from. When you have answered each question return these activity pages to the Ag in the Classroom exhibit in the Pride of Kansas Building for a reward. The Ag in the Classroom exhibit is in the southwest corner of the Pride Building next to the Honey Show. Are you ready for an AG-CITING EXPERIENCE? Let's go!

Ag in the Classroom

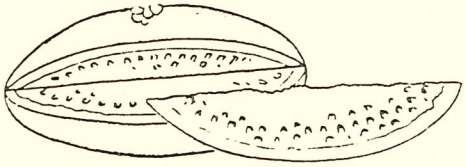
sponsored by

THE KANSAS FOUNDATION FOR AGRICULTURE IN THE CLASSROOM

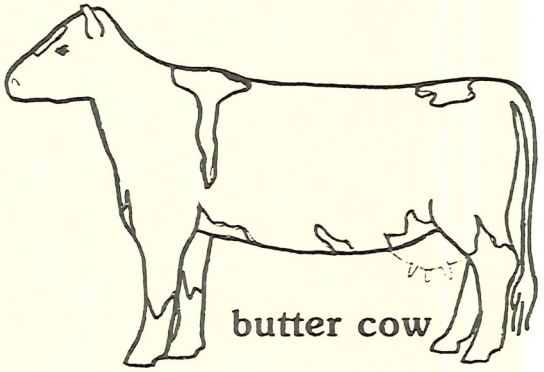
There are lots of fun things to see and lear

In the PRIDE OF KANSAS BUILDING

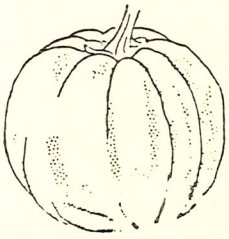
Circle these things as you see them in the PRIDE OF KANSAS BUILDING



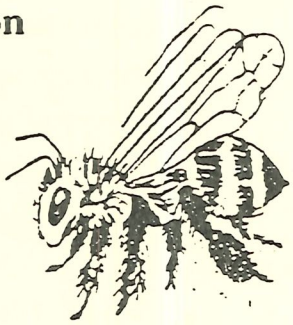
largest watermelon



butter cow



largest pumpkin

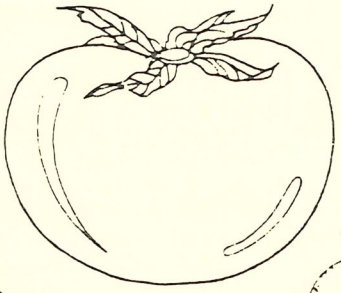


honeybees

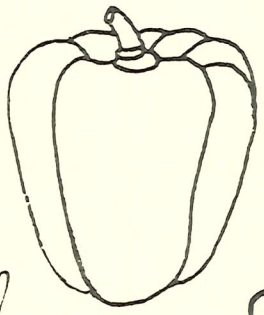
MANY FRUITS AND VEGETABLES GROW IN KANSAS .

CIRCLE THE ONES THAT GROW ABOVE THE GROUND

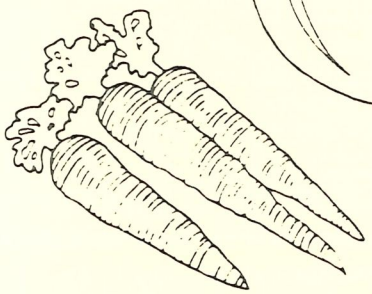
X THE ONES THAT GROW UNDERGROUND.



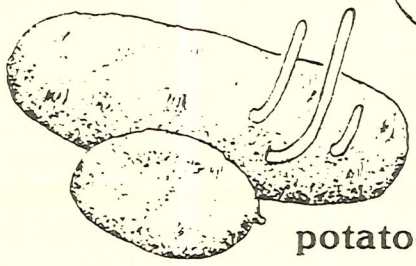
tomatoes



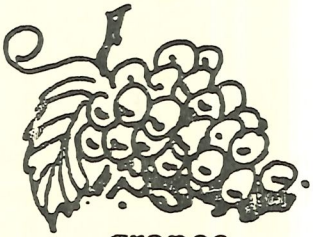
green peppers



carrots



potatoes

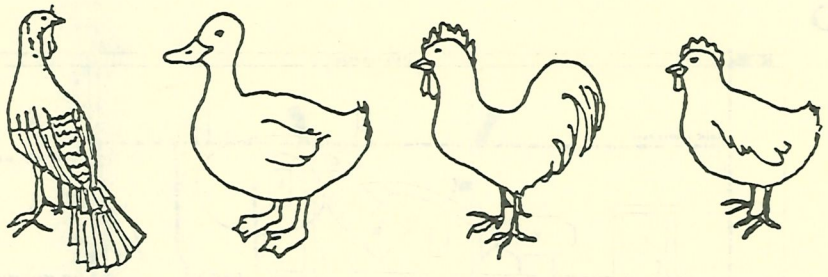


grapes

n about at the 1987 KANSAS STATE FAIR

In the KIDDIES BARNYARD

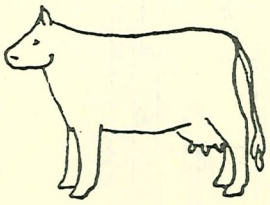
CIRCLE THE FOOD THESE ANIMALS EAT



oats

peanuts

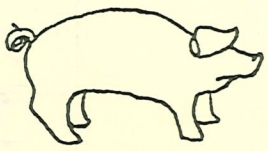
cracked corn



alfalfa hay

silage

grasses



popcorn

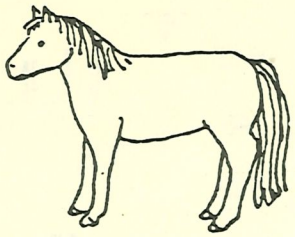
hotdogs

cracked corn

alfalfa pellets

popcorn

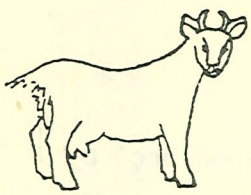
potatoes

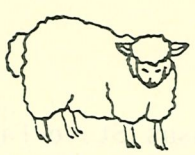


carrots

oats

alfalfa hay





oats

grasses

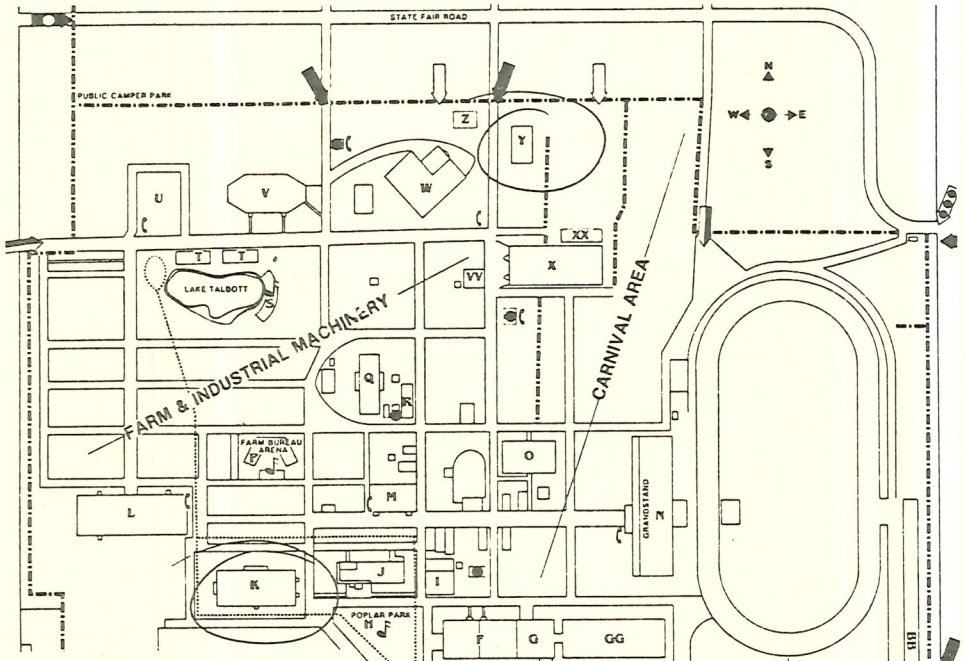
alfalfa hay

sweet corn

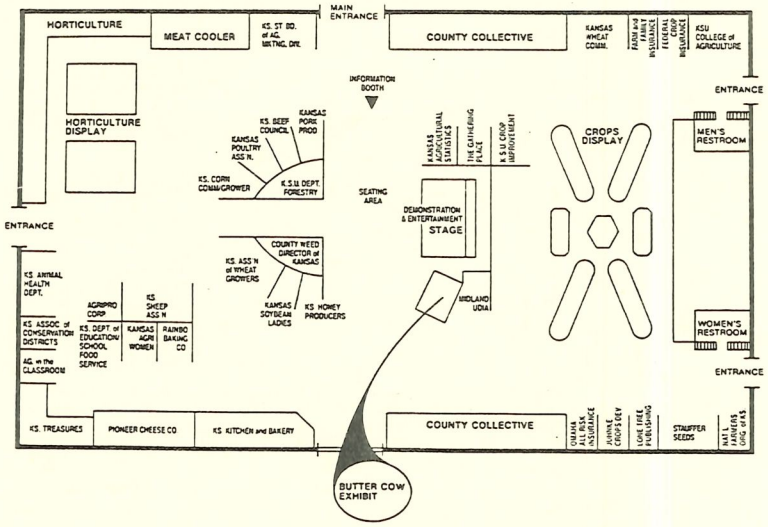
Guide TO THE FAIRGROUNDS

K - PRIDE OF KANSAS BUILDING

Y - KIDDIES BARNYARD



Pride of Kansas Building



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For further information about **AG IN THE CLASSROOM** write:
Kansas Foundation for Agriculture in the Classroom
Bluemont Hall, KSU, Manhattan, Kansas 66506 913-532-7946

AG-CITING ACTIVITIES FOR FIRST AND SECOND GRADE STUDENTS

Welcome to the Kansas State Fair!

The State Fair is a fun place to learn about agriculture. Agriculture is important to Kansas and you! Agriculture gives you the food you eat and the clothes you wear. Agriculture also helped build the house you live in!

Kansas farms grow many crops and raise many animals. Learning about these crops and animals is easy and fun!

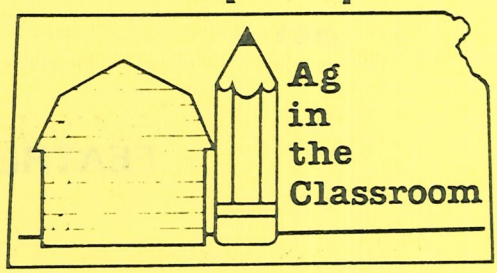
These activity pages contain questions about Kansas agriculture.

Can you answer them?

Follow the map to find exhibits where you will learn the answers.

The answers are written on posters at the exhibits.

When you have found all the answers, return these pages to the Ag in the Classroom exhibit in the Pride of Kansas Building to receive a reward! The Ag in the Classroom exhibit is in the southwest corner of the Pride Building next to the Honey Show. Are you ready for an Ag-Citing Experience? Let's go!



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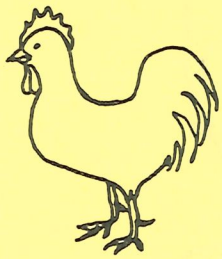
In the KIDDIES BARNYARD

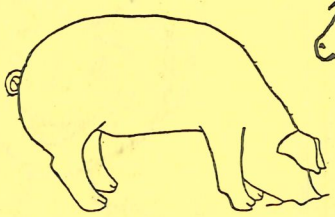
Visit the animals in the KIDDIES BARNYARD to find the answers to these questions

1. Animals live in different kinds of homes.

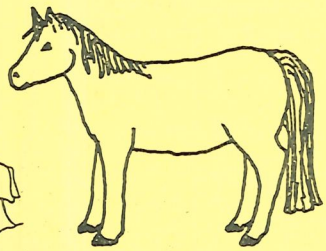
   Draw a line from the animal to the home it lives in.



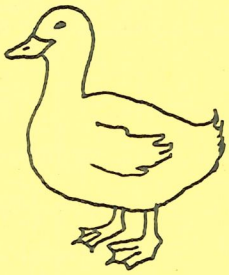
chicken



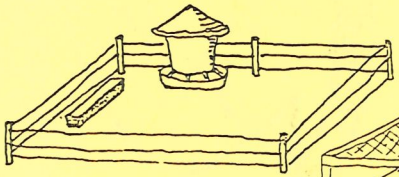
pig



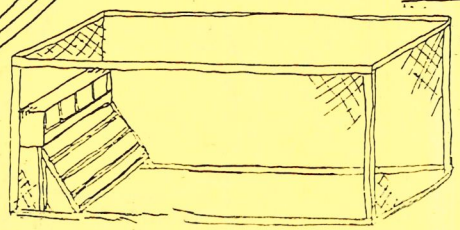
horse



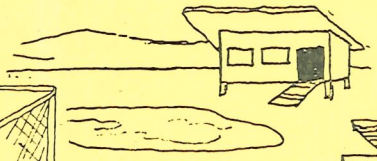
duck



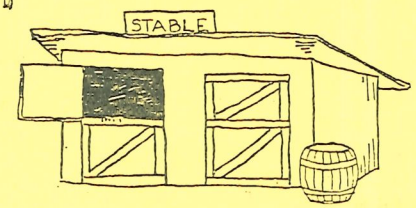
pen



coop



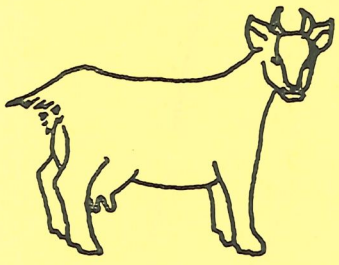
pond



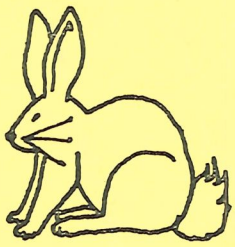
stable

2. What kind of skin covering does each of these animals have?

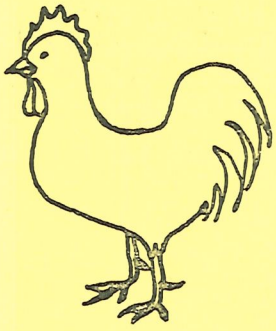
   Draw a line from the animal to the word describing its skin covering.



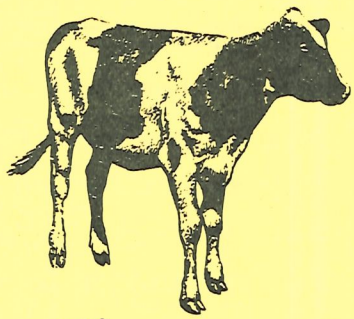
goat



rabbit



chicken



calf

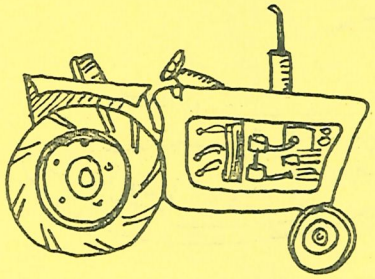
FEATHERS **HAIR** **FUR**

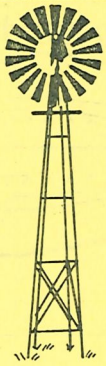
In the PRIDE OF KANSAS BUILDING

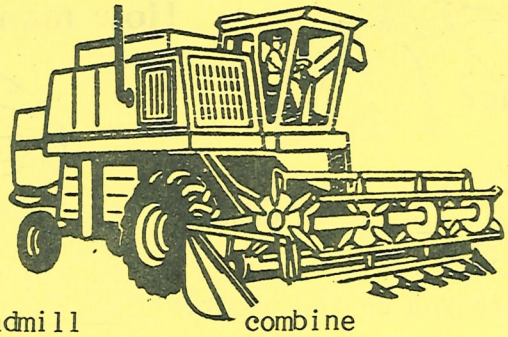
Visit the PRIDE OF KANSAS BUILDING to find the answers to these questions.

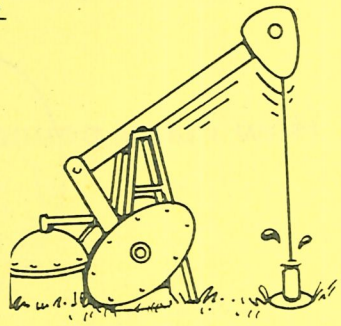
3. Kansas farmers grow many kinds of grain. Kansas is the Wheat State.

   Circle the picture of the machine used to harvest grain.

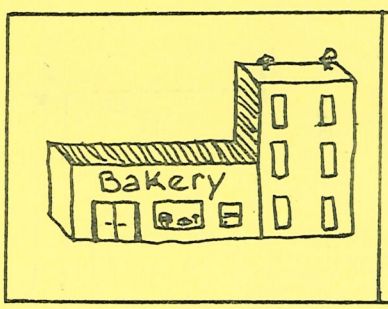

tractor

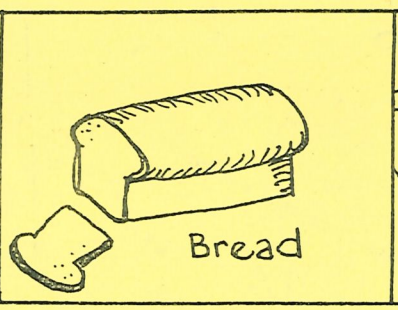

windmill

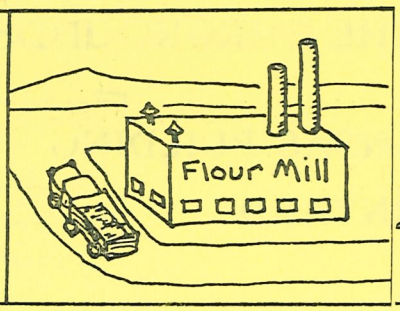

combine

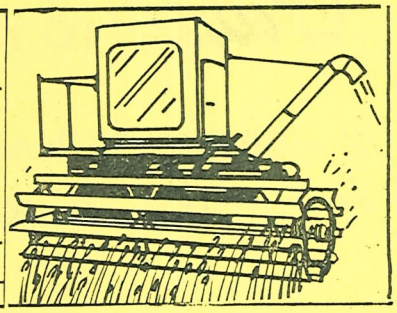

oil well

4. Wheat stops at many places in its journey from a Kansas farm to your dinner table. These are the stops. Number the pictures in order.



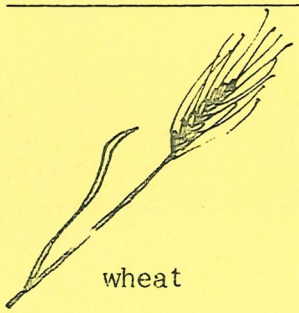


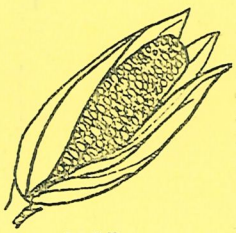


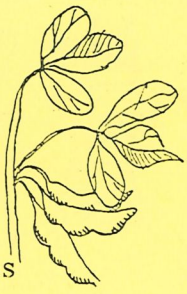


5. The grains grown in Kansas are used to make many foods.

   Draw a line from the grain to the foods made from that grain.


wheat


corn

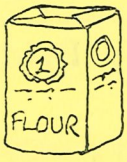

soybeans


oats

oatmeal

corn oil

margarine



flour

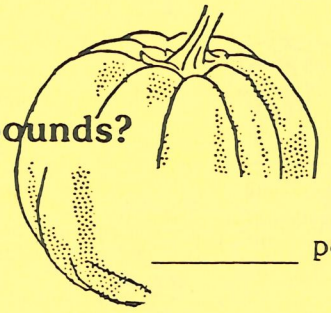
spaghetti

6. Vegetables and fruits like pumpkins and watermelons are grown on Kansas farms.

How many pounds does the largest pumpkin at the State Fair weigh?

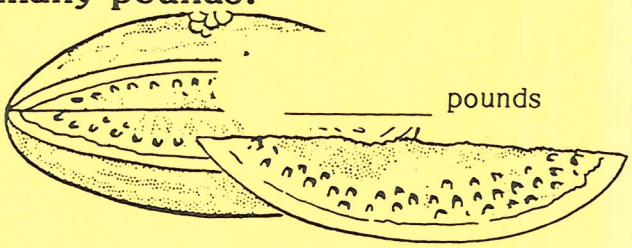
How many pounds does the largest watermelon at the State Fair weigh?

How many pounds?



_____ pounds

How many pounds?



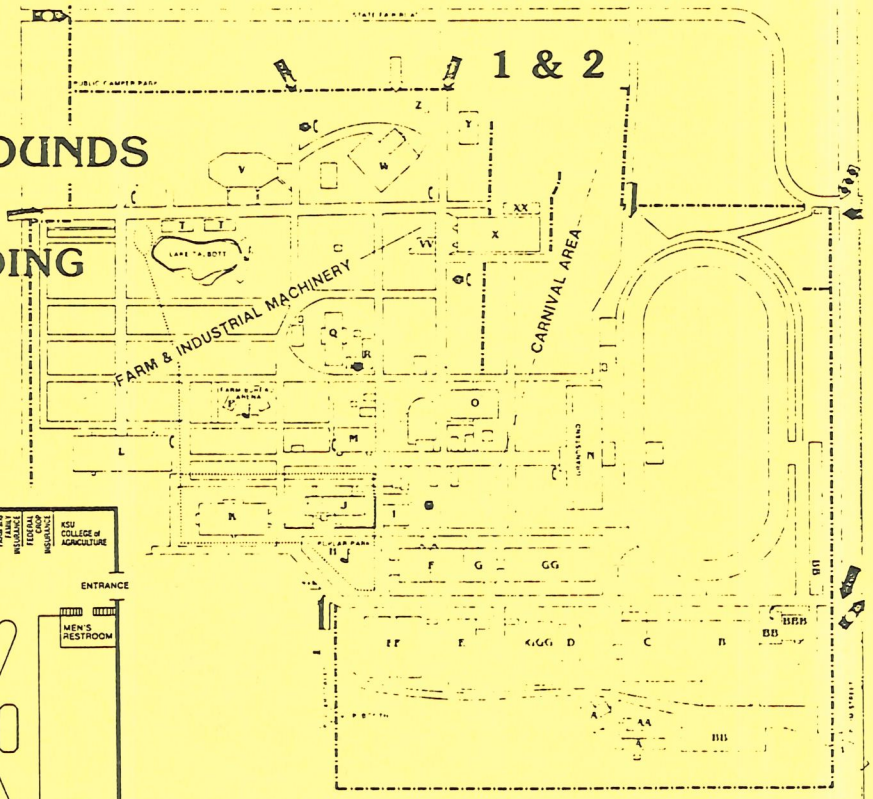
_____ pounds

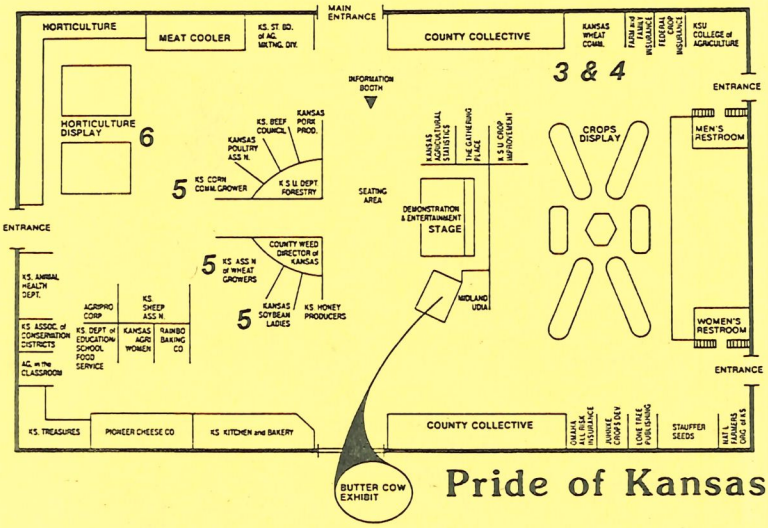
Which weighs more you or the pumpkin? _____

Guide TO THE FAIRGROUNDS

K - PRIDE OF KANSAS BUILDING

Y - KIDDIES BARNYARD





Pride of Kansas Building

The "AG-CITING EXPERIENCE" at the 1987 Kansas State Fair is sponsored by THE KANSAS FOUNDATION FOR AGRICULTURE IN THE CLASSROOM

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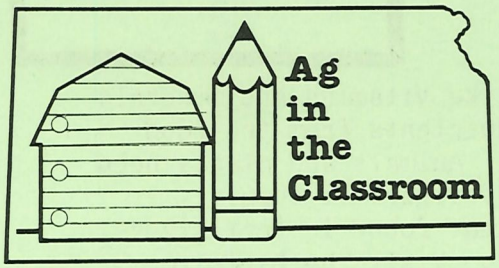
Bluemont Hall, KSU, Manhattan, Kansas 66506 913-532-7946

AG-CITING ACTIVITIES
FOR
THIRD AND FOURTH GRADE STUDENTS



Welcome to the Kansas State Fair! There are many things to see and do at the State Fair. For one thing you can learn lots about Kansas agriculture. Agriculture is the most important industry in our state. We depend on agriculture to provide us with food, clothing, and shelter. These activity questions will give you clues to some important Kansas ag facts. You'll be able to find the answers at the different exhibits on the fairgrounds. The map will tell you where to find the answers. The exhibits marked with a number will have posters to help you find the answers to the questions. When you have answered each question return these pages to the Ag in the Classroom exhibit in the Pride of Kansas Building for a reward. The Ag in the Classroom exhibit is in the southwest corner of the Pride Building next to the Honey Show. Now get ready for an AG-CITING EXPERIENCE!

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THE KANSAS FOUNDATION FOR AGRICULTURE IN THE CLASSROOM

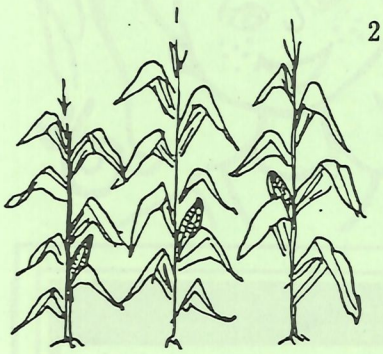
There are lots of fun things to see and le

1. Brands such as XIT are a return address for cattle. They are used to help identify herds of cattle. Stop by the **Kansas Animal Health Department** exhibit to learn more about cattle brands in Kansas.

   How many cattle brands are registered in Kansas?

   ANSWER: _____ brands

DRAW YOUR FAVORITE BRAND HERE.



2. Boys and girls need nutrients like vitamins and minerals to live and grow. We get our nutrients from the food grown by farmers for us to eat. Animals and plants need nutrients too. Farmers use fertilizers to supply nutrients to plants. One nutrient found in fertilizer also begins with the letter "n". Visit the **BioCorp Global** exhibit to learn more about fertilizer.

   Name the nutrient needed by plants beginning with "n".

   ANSWER: N_____

3. Lambs are sheep which are less than one year old. Lambs bodies are covered with wool to keep them warm during the cold winter months in Kansas. Farmers shear their sheep and sell the wool fabric for making warm clothing for you to wear. See sheeps' wool at the **Kansas Sheep Association** exhibit and learn the answers to these questions.

   How often are sheep sheared?

   ANSWER: _____

   How much wool is sheared from one lamb?

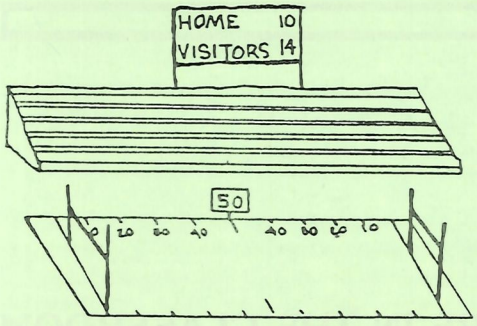
   ANSWER: _____

4. Some Kansas farmers grow vegetables such as carrots, green beans, and pumpkins. How much does the largest pumpkin displayed at the **1986 Kansas State Fair** weigh? How many pumpkin pies would this pumpkin make?

   ANSWER: _____ pounds

   ANSWER: _____ pies

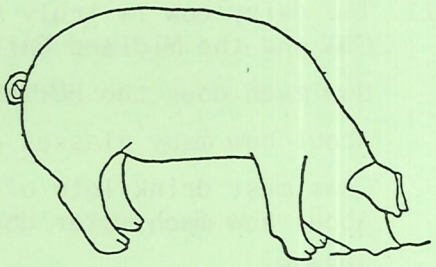
   Which weighs more the pumpkin or you? _____



5. An acre is a piece of land about the size of a football field. Kansas farms are measured in acres. **Kansas Agricultural Statistics**, formerly the Kansas Crop and Livestock Reporting Service can tell you how much total land area in acres there is in Kansas and how many acres are farmland.

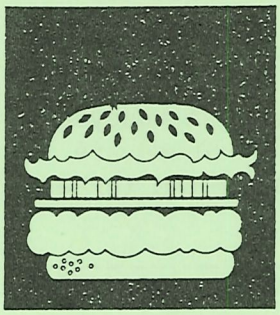
   ANSWER: acres in Kansas _____

   ANSWER: acres farmland _____



6. Meat from pigs is called pork. Pigs give us bacon, ham, ground pork, and pork chops. Stop at the **Kansas Pork Producers** exhibit to ask questions you may have about pigs. Be sure to find out about how many pounds a pig weighs when it is sent to market.

   ANSWER: _____ pounds



7. No one knows for sure when or how the first candle was made. It is known that the ancient Egyptians used candles made of a reed dipped in tallow. Tallow is a wax obtained from melted beef _____. Find this answer at the **Kansas Beef Council** exhibit.

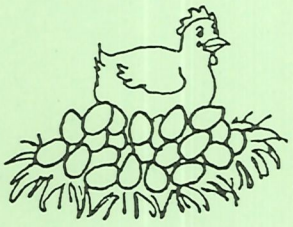
8. Chickens give us eggs. Chickens are one type of poultry. Visit the **Kansas Poultry Association** exhibit to learn these answers.

   About how many eggs does one chicken lay in one year?

   ANSWER: _____

   Then how many one dozen egg cartons can one chicken fill in one year?

   ANSWER: _____



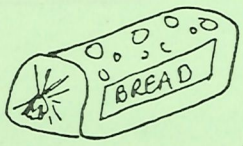
9. Kansas grows more wheat than any other state in the United States. Visit the **Kansas Association of Wheat Growers** exhibit to learn the answers to these questions.

   What season of the year is Kansas wheat harvested? ANSWER: _____

   How many bushels of wheat were harvested in Kansas this year? ANSWER: ___

   How many loaves of bread can be made from the flour made from one bushel of wheat?

   ANSWER: _____ loaves



10. Soybeans are the third largest crop grown in the United States. You can see samples of soybeans at the **Kansas Soybean Ladies** exhibit.

    Name four food products made from soybeans.

    ANSWER: 1. _____ 2. _____ 3. _____ 4. _____

11. The dairy cow is truly an amazing milk machine. Be sure to see the BUTTER COW and the **Midland United Dairy Industry Association** exhibit.

How much does the BUTTER COW weigh? ANSWER:_____

About how many glasses of milk does a cow produce each day? ANSWER: _____

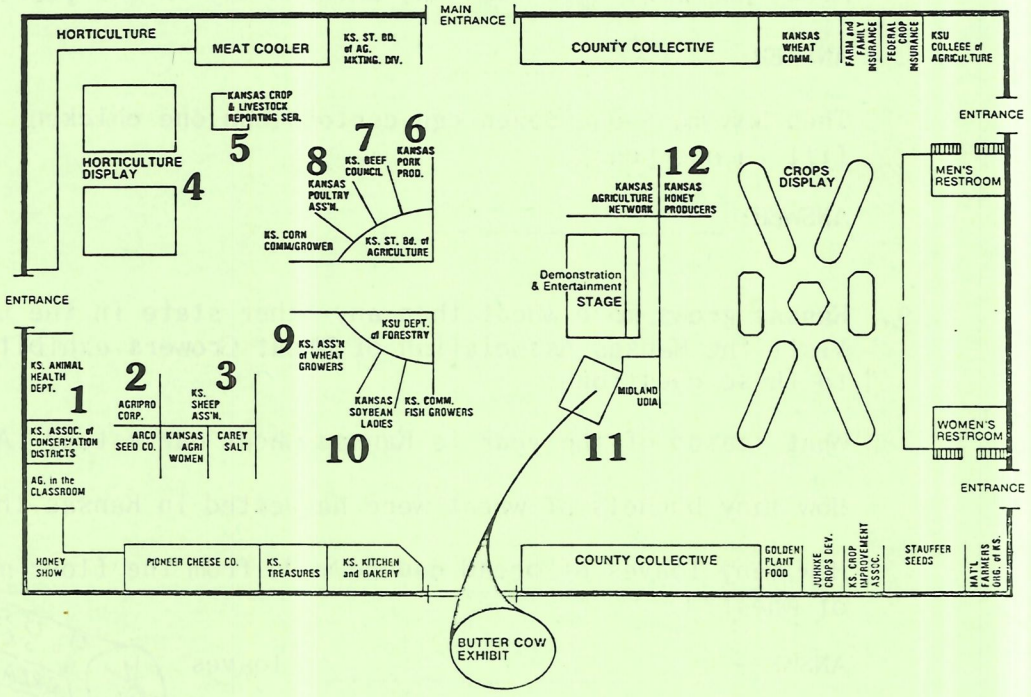
Cows must drink lots of water to produce milk.
About how much water does a dairy cow drink each day to produce milk?

ANSWER: _____

Visit the **Dairy Barn** on the fairgrounds to see the different breeds of dairy cattle and to see cows being milked.

12. Honeybees work hard to fill their hives with honey. You can see honeybees at work in their hive at the **Kansas Honey Producers** exhibit. There are three types of honeybees that live in each hive. Can you name the three types?
ANSWER: 1. _____ 2. _____ 3. _____

GUIDE TO
The Pride of Kansas Building



The "AG-CITING EXPERIENCE" at the 1988 Kansas State Fair is sponsored by THE KANSAS FOUNDATION FOR AGRICULTURE IN THE CLASSROOM

For further information about **AG IN THE CLASSROOM** write:
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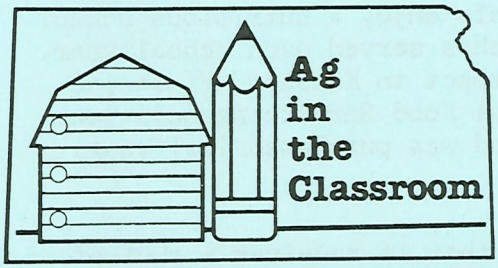
AG-CITING ACTIVITIES
FOR
FIFTH AND SIXTH GRADE STUDENTS



Welcome to the Kansas State Fair! The State Fair is a good opportunity to learn about agriculture. If you have wondered why agriculture is the highlight of the State Fair, it's because agriculture is so important to Kansas. Let's see how many ag facts you can learn. Follow the map to find the answers to the questions on these pages. The map indicates the designated exhibits where you will find clues to the answers written on posters. Don't forget to return your completed activity pages to the Ag in the Classroom exhibit in the Pride of Kansas Building for a reward. The Ag in the Classroom exhibit is in the southwest corner of the Pride Building next to the Honey Show. Start now for an AG-CITING EXPERIENCE!

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FIND THE ANSWERS TO THESE QUESTIONS? CHECK MAP ON BACK PAGE TO FIND EXHIBITS.

1. Farmers build _____ for soil conservation. Visit the **Kansas Association of Conservation Districts** exhibit to learn the answer and more about soil conservation. Find out how many years it takes to make an inch of top soil - which is the reason soil conservation is so important.

   ANSWER: It takes _____ years to form an inch of topsoil.

2. A return address for cattle is a _____. The **Kansas Animal Health Department** has the answer for this one.

3. Every school day over 274,000 Kansas students enjoy a nutritious school lunch. That is over 48 MILLION school lunches served each school year. School Food Service has a great economic impact in Kansas. Visit the Kansas Department of Education/Kansas School Food Service Association Exhibit to find out how many dollars of food was purchased last year.

4. What mineral is so important to a baby pig that it receives a shot of it shortly after birth? ANSWER: _____ This is one of the questions the Kansas Agri-Women are asking fair visitors. Visit their exhibit to meet the challenge of their quiz board.

5. Rainbo Baking Company of Hutchinson, Kansas uses an average of _____ pounds of Kansas flour to make its products each year. Find the answer to this question and others you may have about bread products at the Rainbo Baking Company exhibit.

6. Wool is a good fiber for making clothing because it will keep you warm and will not _____. Visit the **Kansas Sheep Association** exhibit to fill this blank, learn why this answer is true, and more about sheep and wool.

7. "FROM THE LAND OF KANSAS" is a _____ program used to promote Kansas agricultural products. The **Marketing Division** of the **Kansas State Board of Agriculture** helps farmers and Kansas companies sell the products they produce. The Marketing Division can tell you about products "FROM THE LAND OF KANSAS". See product samples at their exhibit.

8. Pork is the leading source of which B-Vitamin? ANSWER: _____ Pork contains three times more of this vitamin than any other food. This vitamin is important to your body's nervous system. Learn the answer to this question and more about pork at the **Kansas Pork Producers** exhibit.

9. Beef is a nutrient dense food. Learn the definition of the term nutrient dense from the **Kansas Beef Council** then fill in the blank in this sentence. Beef is a nutrient dense food because it contains a high proportion of nutrients to _____.

10. There are five sizes of eggs.
    In other words, chickens lay eggs in five different sizes.
    The largest chicken eggs are called _____.
    Who can tell you about chickens and eggs?
    The **Kansas Poultry Association** of course.
    By the way which came first the chicken or the egg?

THE KANSAS FOUNDATION FOR AGRICULTURE IN THE CLASSROOM

11. Wheat, soybeans and corn are very important grain crops grown in Kansas. Visit the exhibits of the experts on these grains the **Kansas Corn Commission and Corn Growers, Kansas Association of Wheat Growers**, and **Kansas Soybean Ladies** to check for the answers to these questions.

What season of the year is - corn planted? _____ harvested? _____

What season of the year is - wheat planted? _____ harvested? _____

What season of the year are - soybeans planted? _____ harvested? _____

12. A beehive is called an _____.
A beekeeper is called an _____.
What two products do bees produce. ANSWER: _____ and _____
Visit the **Kansas Honey Producers** exhibit to learn about these two products and see a live colony of bees.

13. Weeds can significantly reduce crop yields. For this reason county weed directors have an important job working with property owners in the state of Kansas to reduce noxious weed infestations. Visit the exhibit sponsored by the **County Weed Directors of Kansas** to find the answers to these questions.
Research has shown that a severe bindweed infestation can reduce a wheat crop yield by _____ percent and a grain sorghum crop yield by _____ percent

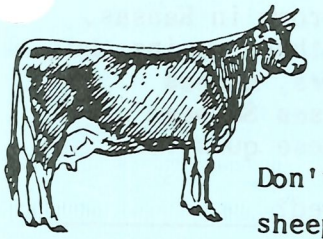
14. If you were asked the question "Does Kansas have any forests?". What would your answer be? ANSWER: _____
A forest is defined as: a dense growth of trees and underbrush covering a large tract. Did you know that every year the forests in Kansas grow 80 million board feet of wood? The **Kansas State University Department of Forestry** can tell you what a board foot is and how many average size homes 80 million board feet of lumber would build. ANSWER: _____

15. Breads and other wheat foods are important sources of two of the three primary nutrients. Learn the answers at the **Kansas Wheat Commission** exhibit.
ANSWERS: protein and _____

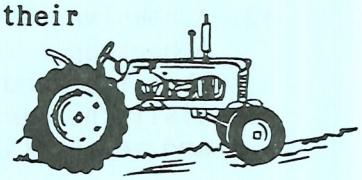
16. At least four things are necessary to raise a crop in Kansas. Can you name them?
1. _____ 2. _____
3. _____ 4. _____
If you need help find the answers at the **Kansas Crop Improvement** exhibit.

17. If the Butter Cow could talk she'd have lots of stories to tell. She'd tell you that milk is _____ to kill harmful germs. And that milk is _____ to break up fat particles and spread them evenly in the fluid. Her friends at the **Midland United Dairy Industry Association** exhibit are speaking for her during the fair. Check there for these and other answers about milk and all the dairy products.

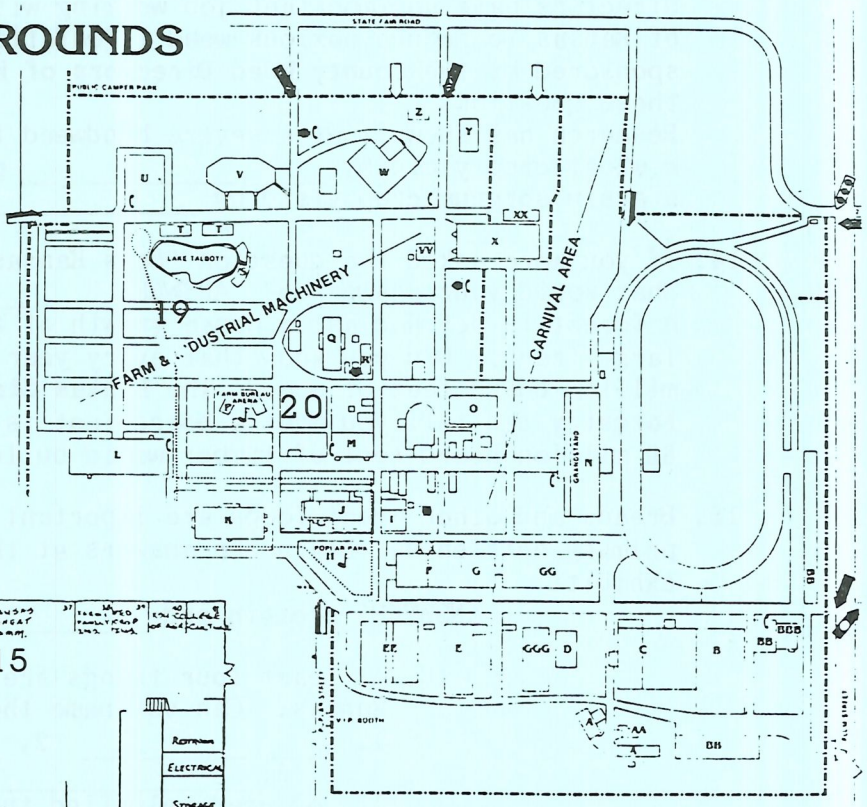
18. _____ is a very nutritious snack that is grown in Kansas and sometimes used as a Christmas ornament. Learn the answer at the **Kansas Treasures** exhibit. It's on the way as you return your completed activity sheet to the Kansas Foundation for Agriculture in the Classroom exhibit to receive your reward.



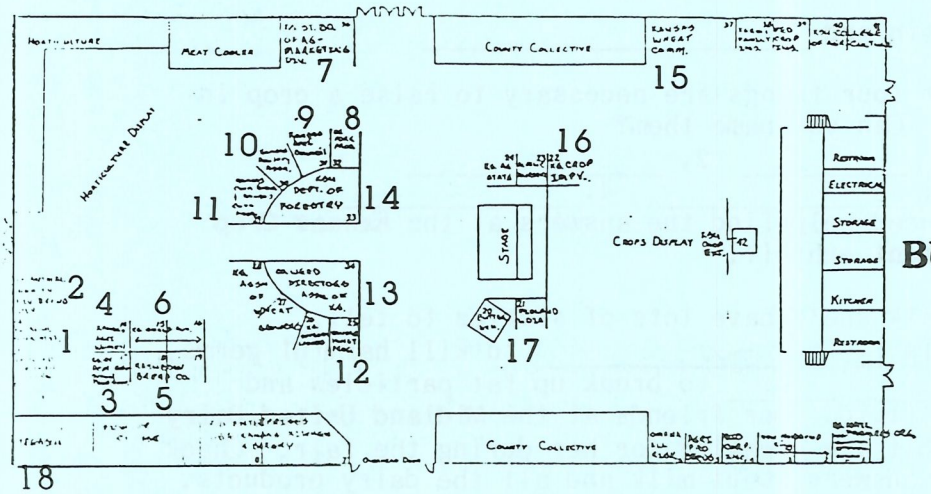
Don't miss seeing the various breeds of cattle, swine, sheep, horses, rabbits and poultry in the livestock barns on the south side of the fairgrounds. Walking though the machinery exhibits provides an interesting view of the equipment used by Kansas farmers in their business of producing food and fiber.



Guide TO THE FAIRGROUNDS



K - PRIDE OF KANSAS BUILDING



BUILDINGS B - G ARE LIVESTOCK BARNS

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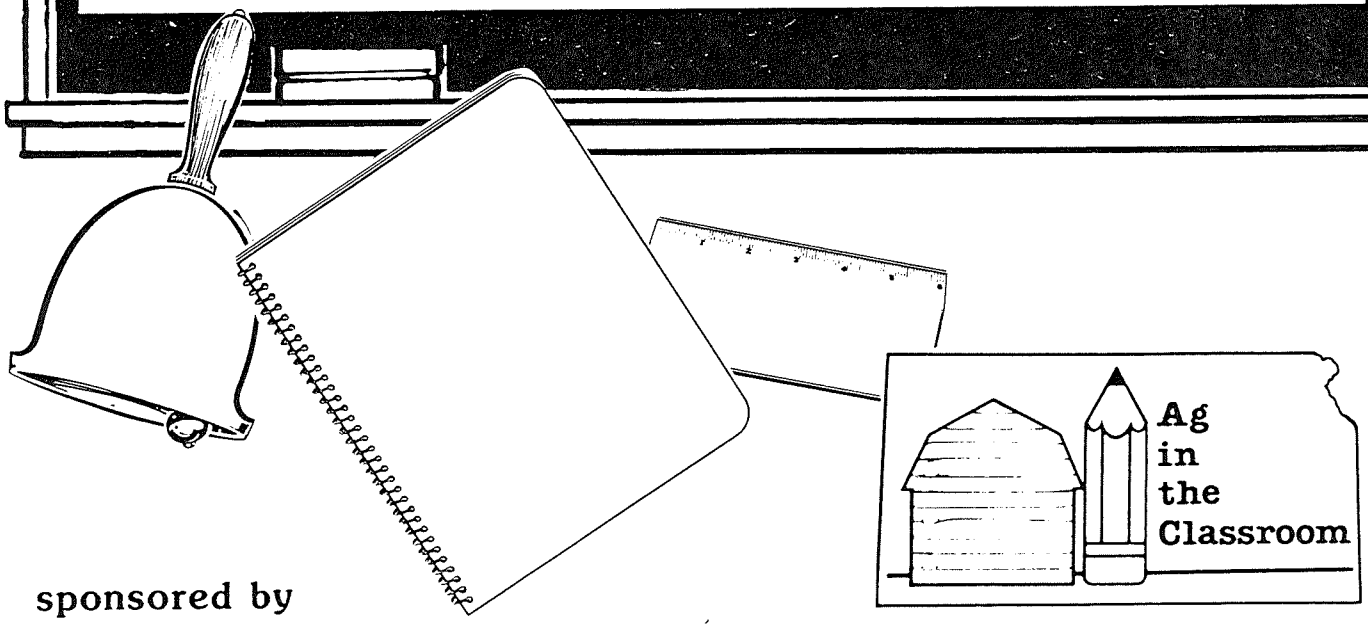
Kansas Foundation for Agriculture in the Classroom
Bluemont Hall, KSU, Manhattan, Kansas 66506 913-532-7946

WHAT'S YOUR AGRICULTURAL I. Q.?

Welcome to the Kansas State Fair. Would you consider yourself knowledgeable about about our state's largest industry? Test your understanding of Kansas agriculture by completing this Ag I.Q. questionaire. Follow the map to find the designated areas where the answers can be found. The answers are located on posters displayed at the exhibits in those areas. Each exhibitor has something special on display for you to see, so be prepared for an "AG-CITING EXPERIENCE"! You'll discover that becoming informed about the industry that you rely on each day, to provide the food you eat and the fibers you wear, is interesting and easier than you thought! Don't forget to bring your completed questionaire back to the Ag in the Classroom exhibit in the Pride of Kansas Building to receive a reward! The Ag in the Classroom exhibit in is the southwest corner of the Pride Building next to the Honey Show.



Ag in the Classroom

sponsored by

KANSAS FOUNDATION FOR AGRICULTURE IN THE CLASSROOM

1. How many years does it take to make one inch of topsoil? _____
How many tons of Kansas topsoil is lost each year due to erosion? _____
Knowing these two facts, it's easy to understand why soil conservation is so important. Learn more about soil conservation from the **Kansas Association of Conservation Districts** at their exhibit in the Pride of Kansas Building.

2. Both Kansas farmers and families living in Kansas cities and towns use fertilizer to raise field crops or gardens and lawns. The letters "NPK" are a key to selecting fertilizer. What do these letters represent on a bag of fertilizer? _____
BioCorp Global specializes in fertilizer. Check your answer at their exhibit.

3. Some vegetables which are commonly called pumpkins are actually _____
Stop at the **Horticulture Display** to see the wide variety of vegetables and fruits grown in Kansas and learn how to identify a real pumpkin. What is the one characteristic of a genuine pumpkin that distinguishes it from other large, orange vegetables we call pumpkins? _____

4. The **Marketing Division of the Kansas State Board of Agriculture** helps to market products "From the Land of Kansas". Did you know that "From the Land of Kansas" is a trademark which is used to identify products produced or processed in our state. The Marketing Division can help you answer this question. What term is used to describe foods and beverages that result from the processing of farm commodities and other raw products? _____

5. Pork is the leading source of which B-vitamin? _____
Pork contains three times more of this vitamin than any other food. That's just one of many good reasons for eating pork. This vitamin is important to your body's nervous system. Check for this answer and learn more about pork at the **Kansas Pork Producers** exhibit.

6. Beef provides iron, B vitamins and protein. Builds and repairs tissue. Helps build blood and form _____ to fight _____.
Check for these answers and other facts about beef from the Kansas Beef Council.

7. Eggs really are incredible and versatile. They are one of the foods that are produced right in their own package. The **Kansas Poultry Association** is a walking "eggcyclopedia" of facts about eggs. The KPA can tell you:
How many eggs does one chicken lay each day? _____
About how many eggs does one chicken lay in one year? _____
Then how many one dozen egg cartons can one chicken fill in one year? ___

8. If you had planted an acre of corn 100 years ago you could expect to harvest 28 bushels of corn from that acre. If you had planted an acre of corn this spring, as an average, how many bushels would you expect to harvest this fall? _____
Check with the **Kansas Corn Commission and Corn Growers** for the correct answer and learn about foods that are made from corn.

9. 100 years ago it took 2 to 3 days to harvest 1 acre of wheat. With today's modern equipment, how long does it take one combine to harvest an acre? _____
What season of the year do the combines go to work in Kansas to harvest our number one crop? _____
What season is wheat planted in Kansas? _____
Why is most of the wheat planted in Kansas called hard red winter wheat? _____
The people with all the answers are the people who grow wheat, the **Kansas Association of Wheat Growers.**

10. Many different foods are made from soybeans. The **Kansas Soybean Ladies** are experts on soybeans. Check the list at their exhibit for the types of foods made from soybeans and name four here.
1. _____ 2. _____ 3. _____ 4. _____

11. Weeds can significantly reduce crop yields. For this reason county weed directors have an important job working with property owners in the state of Kansas to reduce noxious weed infestations. Visit the exhibit sponsored by the **County Weed Directors of Kansas** to find the answers to these questions.
Research has shown that a severe bindweed infestation can reduce a wheat crop yield by _____ percent and a grain sorghum crop yield by _____ percent

12. Every year Kansas forests and woodlands grow a net volume of 80 million board feet of wood. Do you know what a board foot is? The **Kansas State University Department of Forestry** can show you a board foot.
How many average size homes could be built from the wood grown in Kansas each year? _____

13. Statistics, the collection, analysis, interpretation and presentation of facts and figures, is very important work to the agricultural industry. Statistics on the Kansas industry are collected by **Kansas Agricultural Statistics**, formerly the Kansas Crop and Livestock Reporting Service. Those statisticians know all about acres, bushels and many other things. and they like answering questions. Find out from them:
What is the land area of the state of Kansas in acres? _____
How many acres are used for farming? _____
Then, figure how many acres are used for non-farm purposes? _____

14. At least four things are necessary to raise a crop in Kansas. Can you name them? 1. _____ 2. _____ 3. _____ 4. _____
If you need help find the answers at the **Kansas Crop Improvement** exhibit.

15. The dairy cow is truly an amazing milk machine.
How many glasses of milk does the average dairy cow produce each day? ____
Cows must drink lots of water to produce milk.
About how much water does a dairy cow drink each day to produce milk? ____
See the experts on dairy facts at the **Midland Dairy Association** exhibit.

16. Earlier you learned that most of the wheat grown in Kansas is hard red winter wheat. Various types of flour are made from the different types of wheat. Flour made from Kansas wheat is best used to bake what foods? ____
Find this answer and the reason why at the **Kansas Wheat Commission** exhibit.

17. Mother Nature is a farmers friend, but she can be his enemy. There is no guarantee that she will let a Kansas farmer harvest every acre planted. How many acres which are planted each year in Kansas will never be harvested? _____ The **Federal Crop Insurance Corporation** can provide you the answer.

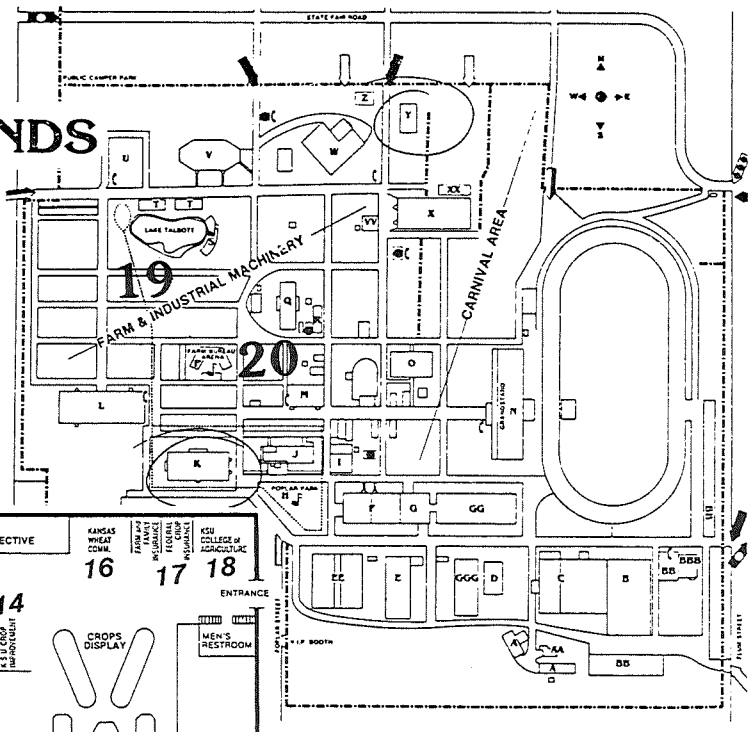
18. **Kansas State University** offers the only educational degree programs in the free world in the areas of _____, _____, and _____.
Visit the KSU exhibit to learn about the school Willie Wildcat attends.

19. Farmers must have equipment to raise crops and feed livestock. A tractor is as important to a Kansas farmer as a truck is to an independent trucker or a printing press is to a printer who owns his own business. Visit one or more of the **machinery dealers** exhibiting at the fair to ask how much a tractor costs. _____ Then figure how many cars your family could buy for the same price if you could buy a car for $10,000. _____

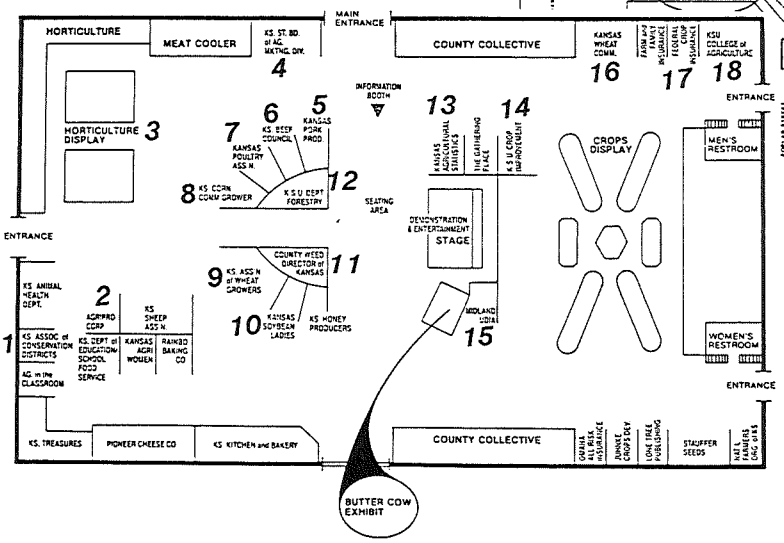
20. In the U.S. we spend 12.7% or 12.7 cents of every dollar earned for food. Visit the **Kansas Farm Bureau** exhibit to see the Food Globe where you can compare this figure with the amount spent on food in other countries.
What percent of personal spending is spent for food -
in the Soviet Union? _____ in People's Republic of China? _____

The average American works 3 minutes to earn enough money to buy a loaf of bread.
How many minutes would you have to work to buy a loaf of bread-
in the Soviet Union? _____ in People's Republic of China? _____

Guide TO THE FAIRGROUNDS



K - PRIDE OF KANSAS BUILDING



For further information about AG IN THE CLASSROOM write: Kansas Foundation for Agriculture in the Classroom Bluemont Hall, KSU, Manhattan, Kansas 66506 913-532-7946

ANSWERS TO 1988 AG-CITING EXPERIENCE ACTIVITY SHEETS

Pre-School and Kindergarten

*circle - tomatoes, green peppers, grapes - they grow above ground
*X - carrots, potatoes - they grow below ground
*Poultry - circle - cracked corn
*Cattle - circle - alfalfa hay, silage, grasses
*Swine - circle - cracked corn
*Rabbits - circle - alfalfa pellets
*Horses - circle - oats, alfalfa hay
*Goats and Sheep - circle - oats, grasses, alfalfa hay

First and Second Grade

1. chicken-coop; pig-pen; horse-stable; duck-pond
2. goat-hair; rabbit-fur; chicken-feathers; calf-hair
3. The machine used to harvest grain is the combine.
4. 1-combine; 2-flour mill; 3-bakery; 4-bread
5. wheat-flour and spaghetti; corn-corn oil and margarine; soybeans-margarine; oats-oatmeal.
6. The largest pumpkin at the 1986 Kansas State Fair weighed 252 pounds. The largest watermelon weighed 94 pounds.

Third and Fourth Grade

1. 26,000 cattle brands are currently registered in Kansas.
2. The nutrient needed by plants beginning with an "n" is nitrogen.
3. Sheep are generally sheared once a year. About 4 pounds of wool is sheared from one Kansas lamb.
4. The largest pumpkin at the 1986 Kansas State Fair weighed 252 pounds. This pumpkin would make about 200 pumpkin pies.
5. 52,344,320 total acres and 47,900,000 acres of farmland in Kansas
6. A pig weighs about 220 pounds when sent to market.
7. Tallow is a wax obtained from melted beef fat.
8. One chicken will lay about 252 eggs in one year--enough to fill 21 cartons.
9. Kansas wheat is harvested in the summer. 319.6 million bushels were harvested in 1988. 70 loaves of bread can be made from the flour made from one bushel of wheat.
10. Cooking oil, margarine, spoonable and pourable dressings, and shortening are made from soybeans.
11. The butter cow at the 1986 Kansas State Fair weighed 1000 pounds. The average dairy cow produces 72 8-ounce glasses of milk and drinks a bathtub full of water, 25-35 gallons, each day.
12. The three types of honeybees are queen, drones and workers.

Fifth and Sixth Grade

1. Farmers build terraces for soil conservation. It takes 100 years to form an inch of topsoil.
2. A return address for cattle is a brand.
3. $37,716,704 worth of food was purchased last year for school lunches.
4. The mineral iron is very important to the health of a baby pig.
5. Rainbo Baking Company uses 19,691,823 pounds of flour each year.
6. Wool will not burn.
7. "FROM THE LAND OF KANSAS" is a trademark.
8. Pork is the leading source of thiamine.
9. Nutrient dense means a high proportion of nutrients to calories.
10. The largest chicken eggs are jumbo.

11. Corn and soybeans are planted in the spring and harvested in fall. Wheat is planted in the fall and harvested in the summer.
12. A beehive is an apiary. A beekeeper is an apiarist. Bees make honey and beeswax.
13. Research has shown that a severe bindweed infestation can reduce a wheat crop yield by 30% and a grain sorghum crop yield by 78%.
14. Yes. Kansas forests produce enough lumber each year to build 10,000 houses.
15. Breads and other wheat foods provide protein and carbohydrates.
16. Seed, soil, water and sun are necessary to raise a crop.
17. Milk is pasteurized to kill harmful germs and homogenized to break up fat.
18. Popcorn is a very nutritious snack.

What's Your Agricultural I.Q.?

1. It takes 100 years to make an inch of topsoil. About 90 million tons of topsoil are lost each year in Kansas.
2. NPK stands for nitrogen, phosphorus and potassium.
3. Some vegetables commonly called pumpkins are actually squash. A genuine pumpkin has a 5-sided stem.
4. Foods and beverages that result from the processing of farm commodities and other raw products are value-added products.
5. Pork is the leading source of thiamine.
6. Beef helps form antibodies to fight infection.
7. A chicken lays one egg per day for five days out of seven or about 252 eggs in a year, enough to fill 21 cartons.
8. An acre of corn might yield 130 bushels per acre this fall.
9. It now takes less than 30 minutes to harvest an acre of wheat. Combines harvest wheat in Kansas in the summer. Wheat is planted in the fall. The wheat planted in Kansas is called hard red winter wheat because it is planted in the fall and goes dormant in winter. It has a reddish color and is hard.
10. Cooking oil, margarine, spoonable and pourable dressings, and shortening are made from soybeans.
11. A severe bindweed infestation can reduce a wheat crop yield by 30% and a grain sorghum crop yield by 78%.
12. 10,000 homes could be built from Kansas wood each year.
13. The land area of the state of Kansas is 52,344,320 acres. 47,900,000 acres are used for farming. 4,444,320 acres are used for non-farm purposes--cities, roads, etc.
14. Seeds, soil, water and sun are necessary to raise a crop.
15. The average dairy cow produces 72 8-ounce glasses of milk each day. A dairy cow drinks a bathtub full of water, 25-35 gallons, each day.
16. Flour made from Kansas wheat is best used to bake yeast breads and rolls.
17. 1 of 18 acres planted each year in Kansas will never be harvested.
18. Kansas State University offers the only programs in milling science, baking science and feed science.
19. This answer depends on the price of the tractor.
20. 33.7% of personal spending is spent for food in the Soviet Union -60% in China. You would have to work 8 minutes in the Soviet Union to buy a loaf of bread-200 minutes in China.

Answers provided by Kansas Foundation for Agriculture in the Classroom, Bluemont Hall 124, Kansas State University, Manhattan, KS 66506; 913-532-7946

Kansas Alliance for Arts Education

Presentation to Senate Education Committee, March 2, 1989

Thank you, we appreciate very much the opportunity to appear before you. For the record: I am John Stefano, Director of Theatre at Emporia State University and a Board Member of the Kansas Alliance for Arts Education, an umbrella organization representing approximately 2500 art, music, dance, and theatre teachers and professors in the state of Kansas. In this effort, we have joined with the over 1000 members of the Kansas Association of Teachers of Science. The bill which we are introducing today has also received the support of the Association of Community Arts Agencies of Kansas, the Kansas Arts Commission, the Kansas National Education Association, and the United School Administrators of Kansas. All of these groups are represented here today.

We are asking you to support Senate Bill 118 which would add the words "science and the arts" to KSA 72-1101, the basic law covering required subjects in elementary schools. That law was first passed in 1861, and required every school district to teach "orthography, reading, writing, English grammar, geography and arithmetic." The law has been revised nine times since, and three subjects have been added: history of the United States and the state of Kansas (1903), civil government and the duties of citizenship (1943), and health and hygiene (1943). (See History of KSA 72-1101, attached.)

As the law now stands, every elementary school is required to teach "reading, writing, arithmetic, geography, spelling, English grammar and composition, history of the United States and of the state of Kansas, civil government and the duties of citizenship, health and hygiene." *Science and the arts are the only major areas of instruction that are not mentioned in the law.*

It may come as some surprise that these subjects are not required. Most--but by no means all--school districts do offer some instruction at the elementary level in science and the arts. But too often the teaching is haphazard and ineffective. Recent cross-cultural studies show that American children rank at or near the bottom of the list in science. As for the arts, fewer than half of the school districts in Kansas even have a written curriculum in visual arts--despite State Board requirements--much less full time art teachers. Dance and creative dramatics are virtually nonexistent. And even when the arts are found at the elementary level, they are rarely integrated with the rest of the curriculum, nor are they offered on a consistent, sequential basis.

Education
3/2/89
Attachment 2

It is instructive to note that Japanese children spend as much time studying the arts as they do science. One has only to look at their products to see that engineering and aesthetics are inextricably linked, something too few American companies recognize. We are paying for the fact that less than one third of adult Americans were ever taken to an art museum, a play, a dance concert, or a classical music performance as children. (See the National Endowment for the Arts report, Toward Civilization, p. 48.)

Children who entered kindergarten last year will graduate from college in the year 2001, and will do their most productive work between 2020 and 2050. In other words, we are already educating 21st century Americans. *The elementary school education they receive now will determine in large measure how competitive America--and Kansas--will be thirty years from today.*

The other conferees will speak to specific needs relating to science and the arts, and then I will make some final comments for your consideration. Thank you.

Final Comments

The need for science and the arts is clear. But why do we need a law? Are not science and the arts covered by State Board regulations? No, they are not. The State Board of Education's accreditation policy for elementary schools reads, "The curriculum of each elementary school shall meet the provisions of KSA 72-1101 and 72-1103 and requirements of the state board. Each elementary school shall have an organized physical education program." (91-31-14a, Accreditation Regulations Applicable to Kansas Elementary and Secondary Schools, 1988) The regulations refer back to the statute, and add nothing except the requirement of an organized physical education program.

It has been argued that the Legislature should not be mandating curriculum. In that case, 72-1101 should be rewritten to read, "Every accredited elementary school shall teach such subjects as the State Board shall determine." We suspect that the people of Kansas would be hesitant to do that. *As long as this law is on the books in its current form, science and the arts must be included in it*, if we want all Kansas children to have equal access to the critical skills which come from properly studying science and the arts. To do anything else amounts to discrimination, particularly against children in rural districts.

Thank you for your consideration.

Cordially,

John Stefano
For the Board of Directors
Kansas Alliance for Arts Education

HISTORY OF KSA 72-1101

First statute, 1861: "In every school district there shall be taught orthography, reading, writing, English grammar, geography and arithmetic, if desired, during the time the school shall be kept, and such other branches of education as may be determined by the District board."

1867 revision: Geography removed, possibility of the German language added "upon petition of any number of freeholders representing fifty pupils who attend school in the district."

1874 revision: German language clause removed.

1877 revision: Required all instruction to be in the English language.

1903 revision: Geography reinstated, and history of the United States and history of the state of Kansas added.

1943 revision: "Civil government and the duties of citizenship", and "health and hygiene" added.

1945 revision: Moved responsibility from the state board to the state superintendent.

1968 revision: Moved responsibility from the superintendent back to the state board. Language cleaned up and simplified.

1972 revision: Removed clause requiring instruction to be in the English language, and allowed local boards to apply to the state board for approval of any bilingual elementary school program, "and upon approval thereof, instruction may be given in the appropriate languages in accordance therewith."

1979 revision: Bilingual clause removed (moved to 72-9501-9510).

Current statute reads: "Every accredited elementary school shall teach reading, writing, arithmetic, geography, spelling, English grammar and composition, history of the United States and of the state of Kansas, civil government and the duties of citizenships, health and hygiene, together with such other subjects as the state board may determine. The state board shall be responsible for the selection of subject matter within the several fields of instruction and for its organization into courses of study and instruction for the guidance of teachers, principals, and superintendents."

Toward Civilization

Overview from

A Report on Arts Education

National Endowment for the Arts

May 1988

Foreword

We need to help our children move toward civilization. As we stand on the threshold of the 21st century, we are concerned, and rightly so, with the quality of the education of young Americans and whether it is preparing them for the challenges of the future. Many of the challenges will, obviously, be scientific and technological — and our schools must give our children the tools to deal with them. Less obviously, many of the challenges will be cultural. They will pose questions concerning what it is to be an American and what our civilization stands for. Education in the arts can help with this.

Arts education can help elementary and secondary school students to reach out "beyond prime time" and understand the unchanging elements in the human condition. It can teach them to see and hear as well as read and write. It can help them understand what civilization is so that as adults they can contribute to it. In a culturally diverse society, it can generate understanding of both the core and multiplicity of America's culture. In an age of television, it can teach our children how the arts can be, and have been, used. In a world made smaller by modern communication and travel, it can teach them how the cultures and civilizations of other countries affect attitudes, beliefs and behavior. It can help our children develop the skills for creativity and problem-solving and acquire the tools of communication. It can help them develop the capacity for making wise choices among the products of the arts which so affect our environment and daily lives.

The National Endowment for the Arts is privileged to present its report on arts education to the President and Congress. We attempt in this report to identify the arts that should be taught in school, to present the reasons for studying them, to show why the present state of arts education is unsatisfactory, and to suggest avenues for its improvement. We look at conditions in American classrooms and at teachers. We explore the state of arts curricula, testing and evaluation, and research. We examine leadership in arts education and the role of the National Endowment for the Arts.

We have found a gap between commitment and resources for arts education *and* the actual practice of arts education in classrooms. Resources are being provided, but they are not being used to give opportunities for all, or even most, students to become culturally literate. The arts are in general not being taught sequentially. Students of the arts are not being evaluated. Many arts teachers are not prepared to teach history and critical analysis of the arts.

This condition of arts education is no worse now than it has been. The vast majority of today's adults say they had no real education in the

arts when they were in school. Then as now, resources for arts education were used primarily to produce performances and exhibitions by talented and interested students for the enjoyment of parents and the community. They are not being used to help young people move toward civilization. This is a tragedy, for the individual and the nation.

To make a start on a remedy, we propose that:

- State education agencies and school districts should develop consensus on what all students should know in the arts before graduating from high school. They should provide required and optional courses, curricula and materials to achieve this. The design and media arts should be included as should history, critical analysis, creation and performance. We suggest that 15 percent of the school week or year be allotted to the arts in elementary, middle and junior high and that the equivalent of two full years be allotted in high school.

- State education agencies, with federal assistance, should develop procedures comparatively to evaluate district and school arts programs in relation to state arts education goals. Local school districts, with federal and state assistance, should do the same based on their curricula.

- State certifying agencies should strengthen and broaden teacher certification requirements in the arts for all teachers whose responsibilities include the arts. Testing of arts teacher qualifications should be improved and mandated. Recruitment and professional development efforts should be strengthened, the teaching environment improved, and special procedures designed to permit qualified artists and arts professionals to teach the arts where there are shortages of specialists.

- More sustained support for arts education research is needed. Research should be focused on improving classroom instruction.

- The U.S. Department of Education and the National Endowment for the Arts should continue and strengthen research to help educators improve arts education in schools. The two federal agencies should work together to include the arts in an expanded National Assessment of Educational Progress to provide national assessments and state-level comparisons.

- Those who believe the arts should be a basic part of education should work together to develop consensus on the purpose and content of arts education. They must make the case for arts education being a fundamental *educational* responsibility. Ensuring comprehensive and sequential arts education calls for greater political effort than would be necessary for subjects currently assumed to be basic.

- The National Endowment for the Arts should continue and strengthen its arts education efforts over at least the next 10-year period. Endowment efforts to date have set the agency on this course. It will take time, however, to make the case for arts education, facilitate state and local collaborations, and help develop and distribute curricular, instructional, and assessment models. The Endowment should continue its efforts to develop a television series on the arts for young people.

The report, *Toward Civilization*, from which this Overview is taken, was built on thousands of hours of research and consultation and benefits from the advice of many of those dedicated to the cause of arts education. We are indebted to Congress for requesting the report and to those who helped prepare it. Whatever deficiencies there may be in the report are mine.

Frank Hodsoll
Chairman
National Endowment for the Arts

Contents

Overview

In 1985, the Congress called for a "study of the state of arts education and humanities education." The National Endowment for the Humanities published its report, *American Memory*, on August 31, 1987. What follows is the Overview from *Toward Civilization*, the report of the National Endowment for the Arts' study on arts education.

WHAT IS BASIC ARTS EDUCATION?

Basic arts education aims to provide *all* students, not only the gifted and talented, with knowledge of, and skills in, the arts. Basic arts education must give students the essence of our civilization, the civilizations which have contributed to ours, and the more distant civilizations which enrich world civilization as a whole. It must also give students tools for creating, for communicating and understanding others' communications, and for making informed and critical choices.

Basic arts education includes the disciplines of literature (from the art of writing); visual art and design (from the arts of painting, sculpture, photography, video, crafts, architecture, landscape and interior design, product and graphic design); performing art (from the arts of dance, music, opera, and musical theater and theater); and media art (from the arts of film, television, and radio).

"Art, no less than philosophy or science, issues a challenge to the intellect. The great works of music, sculpture, painting, engraving, and all other forms of artistic expression engage the mind, teaching lessons about order, proportion, and genius."

— WILLIAM J. BENNETT
U.S. Secretary of Education

While each of these art disciplines differs in character, tradition, and form, basic arts education must also include art forms that are interdisciplinary: opera and musical theater, which combine vocal and instrumental music with drama and stage design; film and television, which combine music, drama, and the visual arts, synthesized by the media arts themselves; and new work that extends the frontiers of current artistic convention. Just as artists collaborate to produce interdisciplinary arts, so school faculties will need to collaborate to teach them.

Like other school subjects, basic arts education must be taught sequentially by qualified teachers; instruction must include the history, critical theory, and ideas of the arts as well as creation, production, and performance; and knowledge of, and skills in, the arts must be tested. As for other school subjects, appropriate resources—classroom time, administrative support, and textbooks—must be provided to this end.

The problem is: basic arts education does not exist in the United States today.

WHY IS BASIC ARTS EDUCATION IMPORTANT?

Our last seven Presidents have all affirmed the idea that the arts are at the core of what we are and, therefore, of what we should know. President Reagan, after quoting John Adams to the effect that his grandchildren should have "a right to study painting, poetry, music, architecture," urged us to "resolve that our schools will teach our children the same respect and

"Art is humanity's most essential, most universal language. It is not a frill, but a necessary part of communication. The quality of civilization can be measured through its music, dance, drama, architecture, visual art and literature. We must give our children knowledge and understanding of civilization's most profound works."

— ERNEST L. BOYER
President
Carnegie Foundation for the Advancement of Teaching

appreciation for the arts and humanities that the Founders had."

A balanced education is essential to an enlightened citizenry and a productive work force, and a balanced education must include comprehensive and sequential study in the three great branches of learning—the arts, humanities, and sciences. It is basic understanding of the combination of these areas of learning that provides for what E.D. Hirsch, Jr. calls "cultural literacy."

There are four reasons why arts education is important: to understand civilization, to develop creativity, to learn the tools of communication, and to develop the capacity for making wise choices among the products of the arts. Lest it be feared that arts education might detract from basic skills thought to be essential to productivity, the example of Japan, whose productivity is without question, is instructive; the Japanese require extensive and sequential arts instruction from kindergarten through twelfth grade.

Very important, arts education is essential for *all* students, not just the gifted and talented. The schools teach reading and writing (including literature) to all students, not just those who are good at these subjects. Just as knowledge of, and skills in, words are essential to functioning in society, so knowledge of, and skills in, nonverbal communication are essential. In order to cope with a 21st century permeated by technological change and the electronic media, young Americans need a sense of themselves and their civilization and of the vocabularies of the images on television. Today's kindergartners will be the first graduating class of the 21st century.

Civilization

"This moment of mounting concern about American education is the time to help our dedicated teachers and our schools transmit the significance and common heritage of the arts, so that our young people will not be denied the opportunity to become citizens this Nation deserves."

— J. CARTER BROWN
Director
National Gallery of Art

The first purpose of arts education is to give our young people a sense of civilization. American civilization includes many cultures—from Europe, Africa, the Far East and our own hemisphere. The great works of art of these parent civilizations, and of our own, provide the guideposts to cultural literacy. Knowing them, our young people will be better able to understand, and therefore build on, the achievements of the past; they will also be better able to understand themselves. Great works of art illuminate the constancy of the human condition.

Mere exposure to the best of the arts is not enough. As Elliot Eisner of Stanford University has said, the best of art needs to be "unwrapped," to be studied in order to be understood. The schools already teach the vocabularies and ideas of good writing by including great literature in English studies. But great works of art also communicate in images, sounds, and movements. The schools need to teach the vocabularies of these images, sounds, and movements, as well as of words, if young Americans are to graduate from high school with a sense of civilization.

All we know of the earliest civilizations comes to us through the arts

— whether the paintings of the caves of Lascaux, the ancient bronzes and pottery figures of pre-Shang China, or the pyramids of Egypt. Without the epics of Homer, without the Parthenon, the whole heritage of Greek civilization would be lost to us; without the bronze sculptures of Benin we would know nothing of the great African empire that antedated Spain's by nearly 100 years; without the great temples overgrown by the jungles of Mexico and Central America, the achievements of the Maya would go unremembered. Without knowledge and understanding of such supreme achievements, we are "culturally illiterate."

"When members of a society wish to secure that society's rich heritage they cherish their arts and respect their artists. The esteem with which we regard the multiple cultures offered in our country enhances our possibilities for healthy survival and continued social development."

— MAYA ANGELOU
Artist

American civilization has a central core which Henry Geldzahler, the former Fine Arts Commissioner of New York City, describes as a "sleeping giant." The core includes — to name a very few — such diverse artists as Shakespeare, Lao Tse, Cervantes, Melville, and Henry James; Praxiteles, Michelangelo, Velasquez, Frank Lloyd Wright, Winslow Homer, and Jackson Pollock; Bach, Mozart, Beethoven, Aaron Copland, and Duke Ellington; George Balanchine, Martha Graham, and Katherine Dunham; Jan Peerce, Marian Anderson, and Leontyne Price; and John Huston and Katharine Hepburn. The American giant is largely European, but includes strains of Africa, Asia, and the other parts of our own hemisphere.

In designing the contents of arts education, we must set out to make this "giant" a part of the knowledge and experience of all Americans. The "giant" *is* American civilization.

Creativity

A second purpose of arts education is to foster creativity. Young people should have the opportunity to emulate master artists — to take blank sheets of paper or rolls of film or video tape and fill them, to blow a trumpet and make melodies and rhythms, to design a house or a city, and to move in dance.

To acquire the skills with which to do this requires hard work and discipline, but to use them to create a personal vision can be a joyful experience. Moreover, whether by inference from a collection of phenomena, or by creating an initial hypothesis from which deductions might flow, learning in the arts can not only develop the discipline and craft necessary to constructive creation, it can also help students to develop reasoning and problem-solving skills essential to a productive work force and to the learning of other subjects.

Trying to create or perform the nonliterary arts without skills and knowledge is like trying to write without vocabulary and syntax. The student is reduced to being the "first artist." No one would dream of teaching the art of writing that way, just as no one would teach mathematics or physics without the benefit of Euclid or Newton. Arts education must include the vocabularies and basic skills which produced the great works

MR. WILLIAM
SHAKESPEARES
COMEDIES,
HISTORIES, &
TRAGEDIES.

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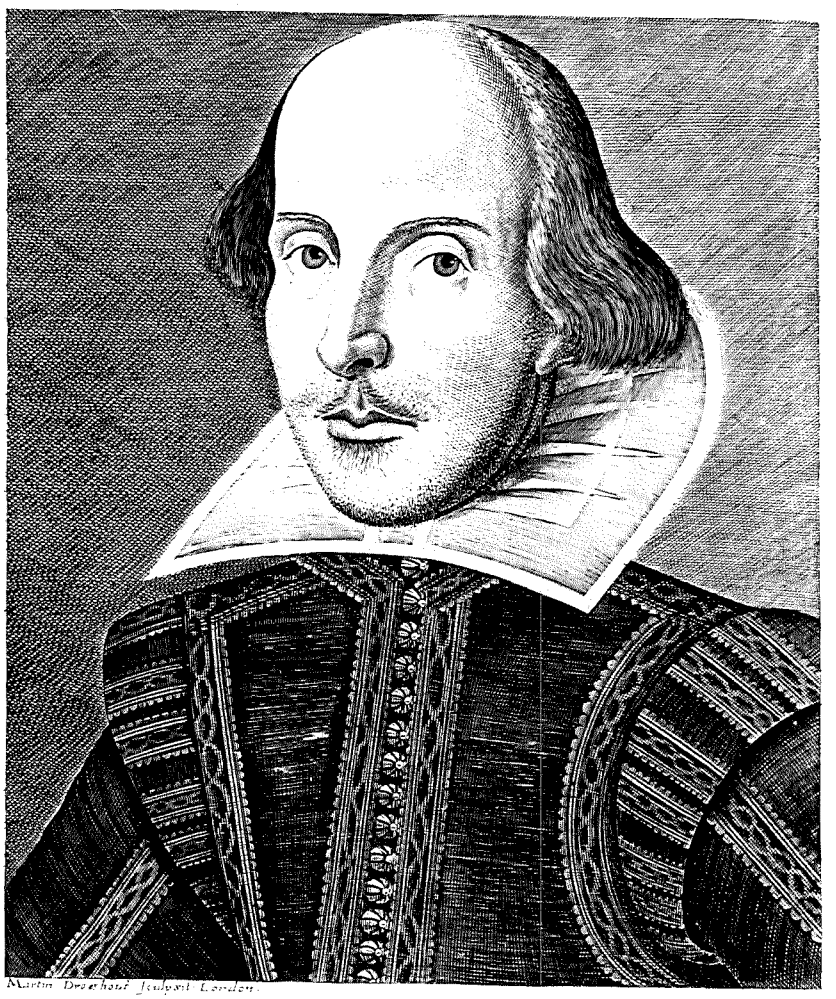


LONDON
Printed by Isaac Iaggard, and Ed. Blount. 1623.

William Shakespeare,
Title Page of First Folio,
The Folger Shakespeare
Library, Washington

of the past so that young people can build on those who came before.

To create and perform works of art is also to engage actively in the process of worldmaking. As the well-known psychologist Jerome Bruner reminds us, Aristotle in the *Poetics* observed that "the poet's function is to describe, not the thing that has happened, but a kind of thing that might happen." Bruner notes that tyrants hate and fear poets "even more than they fear and hate scientists, who, though they create possible worlds, leave no place in them for possible alternative personal perspectives on those worlds." Such perspectives are very much the domain of the poet, the artist. The function of art is "to open us to dilemmas, to the hypothetical"; it is in this respect "an instrument of freedom, lightness, imagination, and yes, reason."

Communication

A third purpose of arts education is to teach effective communication. As great orators and writers through history have shown, speaking and writing are art forms; the best of writing becomes "literature" and is studied as such. But all writing, whether it is a political speech, advertising copy, a novel or a poem, is an attempt to communicate to readers. The other art forms also have languages through which artists speak to audiences. The language may be primarily verbal, as in literature, or nonverbal, as in music, dance, or the visual and design arts, or it may be a combination of both, as in drama, opera and musical theater, and the media arts. Young people must be given an education enabling them to understand these languages and to analyze their meanings.

Their education should include learning elementary artistic skills which can be used in later life — whether visually to express some nonverbal concept in a corporate board room, or to play a phrase on a piano to illustrate tonal differences, or to sing a song, or to use acting techniques to make a point or tell a joke effectively, or to record in words or line an especially memorable personal experience.

Understanding of nonverbal communication is especially important in a time when television has become a principal medium of communication. Television reaches everywhere. It is of prime importance in judging and electing our leaders; its dramas influence the vocabularies of our languages and reinforce or detract from our prejudices; its practitioners' names are household words; young people spend more time watching it than they spend in school. Television may well be the most important innovation in communication since the printing press, and it communicates in images that are as much visual and aural as verbal. It employs all the arts, which in turn are synthesized by the art of television itself. For students, learning the vocabularies of all the arts, including the media arts, is an essential tool for understanding, and perhaps one day communicating in the medium of television.

Television itself is also changing in ways that will make it easier to use on behalf of the arts. Broadcast is becoming less important as cable and cassette technologies, with their potential for reaching specialized audiences, penetrate the marketplace. The audience share for network television has dropped from 91 percent in 1977 to 69 percent in 1987. The newer technologies have the potential to empower audiences with special interests and those with special messages. But if this empowerment is to take place, young people must learn the vocabularies of television.

It is something of an anomaly that the schools make little effort to teach young people the rudiments of television's vocabularies. No one disputes that literature should be a basic part of English studies, if only because the best writers serve as models for students who are learning the craft of writing. While television is still a new medium and there are as yet few models that have withstood the test of time, it is curious that the schools have so far taken little or no interest in educating their students in the art and craft of making images on television.

Choice

A fourth purpose of arts education is to provide tools for critical assessment of what one reads, sees and hears. It should provide both models and standards of excellence. It should also provide a sense of the emotional power of the arts, their ability to stir an audience, both to inspire it and manipulate it. Arts education can give people the tools to make better choices and even to influence the marketplace of both products and ideas.

Every child growing up in the United States is bombarded from birth with popular art and artful communication over the airways and on the streets. The purpose of arts education is not to wean young people from these arts (an impossible task even if it were desirable) but to enable them to make reasoned choices about them and what is good and bad.

Arts education can help make discriminating consumers. Understanding the art of design, for example, can lead to better industrial products, as the Japanese understood when they swamped our automobile market. Similarly, knowledge of design enables the citizenry to make informed choices affecting where and how we live. Understanding of the media arts could affect the Nielsen and Arbitron ratings which dictate the broadcast agenda.

WHAT IS THE PROBLEM?

Several impediments stand in the way of arts education. According to a 1986 Gallup poll, Americans generally view job preparation as the principal reason for schooling, and knowledge not obviously related to job skills as relatively unimportant. Our preoccupation with the practical has made education focus on limited basic skills (reading, writing, arithmetic, and now computer literacy) while neglecting education in what those skills

are to be used for. Americans also generally confuse the arts with entertainment which can be enjoyed without understanding. Some go so far as to think of the arts as potentially threatening or even blasphemous. Further, because there is little agreement on what arts education should be, there is no agreed course of action to rally those who believe in it.

To sum up, the arts are in triple jeopardy: they are not viewed as serious; knowledge itself is not viewed as a prime educational objective; and those who determine school curricula do not agree on what arts education is.

THE STATE OF ARTS EDUCATION TODAY

There is a major gap between the stated commitment and resources available to arts education and the actual practice of arts education in schools.

Arts education, generally limited to instruction in music, drawing, painting, and crafts, has always had a place, even if a minor one, in America's schools. And the current move for educational reform has to a certain extent embraced the arts as well as the sciences and humanities. Most national education authorities—Secretary of Education William Bennett, the Council of Chief State School Officers, the National School Boards Association, the National Education Association, the American Federation of Teachers, the College Board—support the general concept of making arts teaching a part of basic education.

At the state level, 29 states have enacted high school graduation requirements which in some way include the arts, 27 of them in the past eight years (see Figure 1); and 42 states require school districts to offer arts instruction in elementary, middle, or secondary school.

At the school district level, consistent with state level trends, a growing number of districts now require units in the arts for graduation from high school. The number of districts reporting increases between 1982 and 1987 in the number of arts courses being offered is greater than those reporting decreases. In addition, 50 percent of school districts report that the percentage of their budgets allocated to arts education increased during these years. While a majority of districts reported that between 1982 and 1987 the percent of classroom time in the school day for arts education stayed the same, more than a third reported that the amount of time had increased, and only 6 percent reported decreases.

Nationally, there are almost as many music and visual art teachers in the schools as science teachers. The amount of time allocated to arts instruction in grades one through six averages 12 percent of classroom time for the majority of students. This increases to 17 percent for the majority of students in grades seven and eight, and in these grades arts courses in music and the visual arts are usually taught by certified specialist teachers in these areas.

Figure 1. States with Graduation Requirements in the Arts

STATE	Number	Subject
* ARKANSAS	½	Drama, Music, Visual Arts
CALIFORNIA	1	Fine Arts (Creative Writing, Dance, Drama, Music, Visual Arts) or Foreign Language
CONNECTICUT	1	Arts (Dance, Drama, Music, Visual Arts) or Vocational Education
* FLORIDA	½	Fine Arts (Dance, Drama, Music, Visual Arts)
GEORGIA	1	Fine Arts (Dance, Drama, Music, Visual Arts), Vocational Education or Computer Technology
HAWAII	1	For academic honors only Art or Music
IDAHO	4[1]	Fine Arts (Creative Writing, Dance, Drama, Music, Visual Arts), Foreign Language or Humanities
ILLINOIS	1	Art, Music, Foreign Language or Vocational Education
INDIANA	2	For students seeking an Honors Diploma
LOUISIANA	½	For students in the Regents Program (typically, the college-bound)
MAINE	1[1]	Fine Arts (Visual Arts, Music, Drama) or Forensics
* MARYLAND	1[1]	Fine Arts (Dance, Drama, Music, Visual Arts)
* MISSOURI	1	Music or Visual Arts
* NEW HAMPSHIRE	½	Arts Education (Art, Music, Visual Arts, Dance, Drama)
NEW JERSEY	1	Fine Arts, Practical Arts or Performing Arts

NEW MEXICO	½	Fine Arts (Visual Arts, Music, Dance, Drama), Practical Arts or Vocational Education
*NEW YORK	1[2]	Dance, Drama, Music, or Visual Arts
NEVADA	1[3]	Fine Arts or Humanities
NORTH CAROLINA	1	For students enrolled in the Scholars Program
OREGON	1	Music, Visual Arts, Foreign Language or Vocational Education
PENNSYLVANIA	2	Arts (Dance, Drama, Music, Visual Arts) or Humanities
RHODE ISLAND	½	For college-bound students only. Dance, Drama, Music or Visual Arts
*SOUTH DAKOTA	½	Fine Arts (Dance, Drama, Music, Visual Arts)
TENNESSEE	2	For students seeking an Honors Diploma
TEXAS	1	For advanced academic program students only. Drama, Music or Visual Arts
*UTAH	1½	Dance, Drama, Music or Visual Arts
*VERMONT	1	General Arts, Dance, Drama, Music or Visual Arts
VIRGINIA	1[1]	Fine Arts (Art, Music, Dance, Theatre) or Practical Arts
WEST VIRGINIA	1	Music, Visual Arts or Applied Arts

*States that require some study of the arts by every high school student.

[1] Effective 1988.

[2] Effective 1989.

[3] Effective 1992.

This table is a revision of one first published in *Arts, Education and the States: A Survey of State Education Policies* (Washington, D.C.: Council of Chief State School Officers, 1985), updated with information from the National Art Education Association; Alliance for Arts Education, The John F. Kennedy Center for the Performing Arts; and the National Assembly of State Arts Agencies.

However, these developments have not resulted in basic arts education. In few if any school districts in the nation are these stated commitments and resources translated into the kind of actual teaching and learning in the arts that would give *all* students sequential opportunities to understand and contribute to their civilization, to participate in and develop a sense of the creative and problem-solving process, to communicate and understand communication in visual and aural images as well as words, and to make wise choices among the products of the arts.

Arts graduation requirements are often vague and sometimes listed as alternatives to requirements in other subject areas. Of the 29 states that require the arts for high school graduation, 13 accept courses in domestic science, industrial arts, humanities, foreign languages, or computer sciences as alternative ways of meeting them. Only nine states require arts courses per se for all students; seven more require them only for college-bound or honors-program students. Further, college-bound students have little incentive to elect arts courses in high school because many colleges will not accept them for credit.

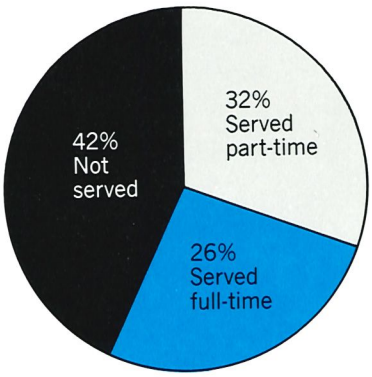
Most elementary school classroom teachers have had little formal training in the arts. Access of elementary school students to arts specialist teachers varies widely among regions, and except in music is often lacking (see Figure 2). There are few texts and other instructional materials actually available in elementary school arts classrooms. In middle and junior high schools, specialist teachers and instructional materials in fields other than music and the visual arts are usually lacking, and even where they are present, students will learn little of the great works of art. High school courses are usually performance oriented and focused on those with special talent or interest. Practically no attention is given at any grade level to the media and design arts and dance.

Student enrollments in music and visual art courses are substantial in grades seven and eight on a national basis, on the order of half the students in those grades (see Figure 3, p. 24). However, enrollment rates in these subjects drop precipitously in grades nine to 12 (reaching a level on the order of 10 to 20 percent), and enrollments in all other arts courses are low for grades seven to 12 (on the order of 12 to 14 percent). Interestingly, rural districts have higher enrollment rates in music than suburban districts, but lower enrollments in visual arts. On a regional basis, the Northeast has generally the highest enrollments in arts courses (on the order of 80 percent for general music and visual arts in grades seven and eight) and the West the lowest enrollments (21 percent for general music and 35 percent for visual arts in grades seven and eight).

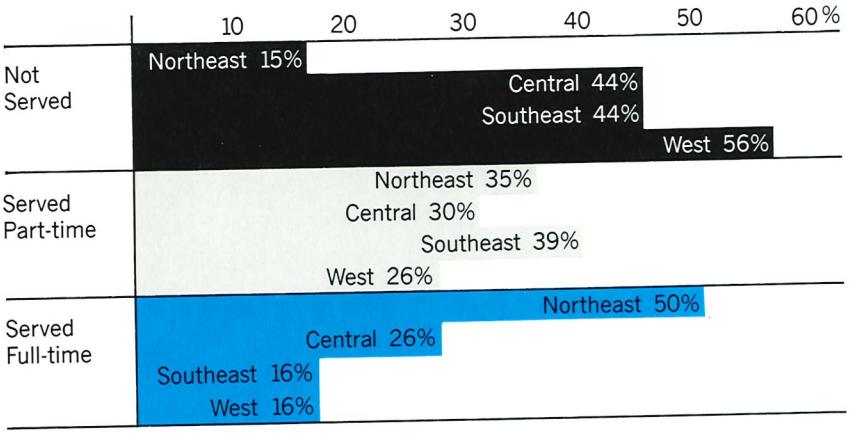
Figure 2. Percentage of Elementary Schools Served by Visual Art and Music Specialists, 1986-87, (50 States and D.C.)

NATIONAL

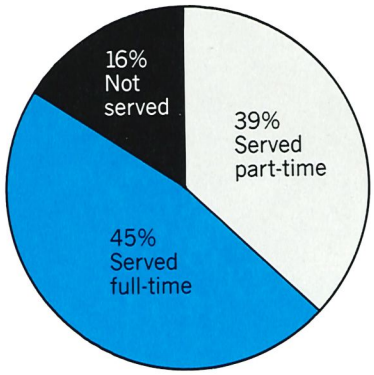
Visual Arts Specialists



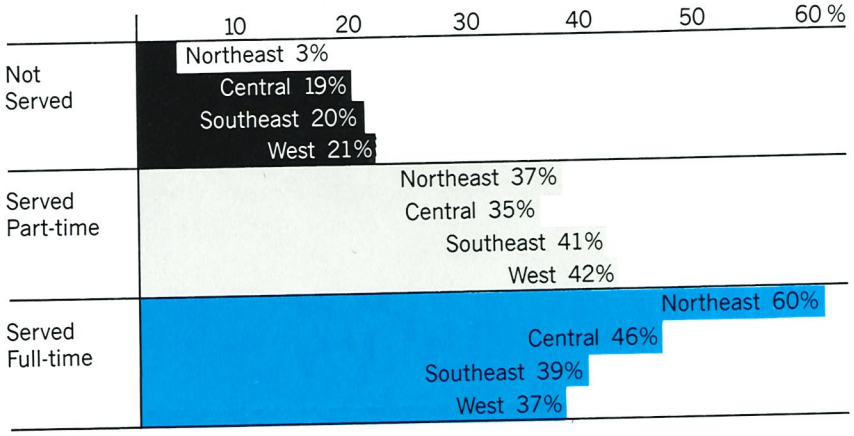
Percentage of Elementary Schools Served by Visual Arts Specialists, by Region,* 1986-87



Music Specialists



Percentage of Elementary Schools Served by Music Specialists, by Region,* 1986-87



Source: Center for Education Statistics, "Public School District Policies and Practices in Selected Aspects of Arts and Humanities Instruction," U.S. Department of Education Bulletin, February 1988, Figure 5, p. 10 and Table 10, p. 24.

*The **Northeast** includes districts in Connecticut, Delaware, the District of Columbia, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont. The **Central** region includes districts in Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin. The **Southeast** includes districts in Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, and West Virginia. The **West** includes districts in Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oklahoma, Oregon, Texas, Utah, Washington, and Wyoming.

Figure 3. Student Enrollments in the Arts, Grades 7-12, 1986-87 by National, Regional & Metropolitan Status (50 States and D.C.)

Subject and grade	Average percentage of students enrolled or participating							
	All districts	Geographic region				Metropolitan status		
		North-east	Central	South-east	West	Urban	Sub-urban	Rural
Music (general)								
Grades 7-8	48	81	51	45	21	54	42	52
Grades 9-10	12	21	13	9	7	13	8	17
Grades 11-12	9	15	11	7	5	9	7	13
Instrumental music								
Grades 7-8	23	22	27	17	23	21	23	24
Grades 9-10	16	14	21	13	14	13	15	18
Grades 11-12	14	12	19	12	12	11	14	16
Choral music								
Grades 7-8	23	27	30	16	16	17	22	26
Grades 9-10	13	13	19	9	9	9	12	15
Grades 11-12	12	11	17	9	7	8	12	13
Visual arts								
Grades 7-8	53	79	59	42	35	58	52	51
Grades 9-10	21	28	24	14	16	22	22	17
Grades 11-12	16	18	21	13	14	15	19	13
Other arts								
Grades 7-8	14	12	17	9	15	14	14	13
Grades 9-10	12	10	15	10	13	12	12	12
Grades 11-12	13	12	16	10	11	12	13	12

Source: Center for Education Statistics, "Public School District Policies and Practices in Selected Aspects of Arts and Humanities Instruction," U.S. Department of Education Bulletin, February 1988. Tables 8 and 9. pp. 22-23. For a regional listing of states, see Figure 2.

Our only sense of student achievement in, and knowledge of the arts comes from the National Assessment of Educational Progress, which twice in the 1970's assessed student abilities in the visual arts and music. The results were not encouraging. The Assessment reported that in 1979 high school students knew less about music than their peers knew in 1971. In the visual arts, test performances also declined. There is little reason to believe that the situation has changed for the better.

The artistic heritage that is ours and the opportunities to contribute significantly to its evolution are being lost to our young people. In 1982, and again in 1985, we learned that 61 percent of American adults had not attended even once in the previous 12 months a single live performance of jazz, classical music, opera, musical theater, or ballet; nor had they visited a museum or art gallery. That 39 percent of adult Americans — over 65 million citizens — did participate in these arts is likely an enormous improvement over, say, 20 years ago, but the fact remains that the cultural heritage and most contemporary expression outside the popular culture of the moment are not part of the lives of most Americans. There is evidence that arts education can make a difference.

Curriculum

What should teachers teach in the arts? There is little agreement about the content of arts education: what should be required, what should be taught separately, what should be integrated into the teaching of other subjects. Nor is there any consensus in arts education about the relative emphasis that should be placed on teaching history, skills, and critical judgment.

There is equal confusion about learning goals, how much students can absorb and at what grade levels. There is a consensus that the arts should be taught sequentially, and certain professional associations of arts educators have agreed on comprehensive curricula for their disciplines. However, there is little or no agreement among state and local education agencies about how the variety of the arts should be taught. In short, educational decision makers are bewildered by the question: what should every high school graduate, whether college bound or entering the work force, know about the arts?

In most states, curriculum guides are available to local districts. But these guides vary from state to state, and tend to emphasize narrowly focused skill outcomes at the expense of the art form as a whole and of the cultural significance of great works of art. Because many teachers lack a background in teaching the great works of art, they are unable to overcome this deficiency. Further, the guides tend to replicate existing guides and ignore the best theoretical work available; they also often fail at the elementary school level to provide nonspecialists with the practical information they need for classroom instruction.

Two-thirds to three-quarters of school districts provide curriculum

guides for music and the visual arts; but only about one-third have them for dance, theater, and creative writing. There are virtually none for the arts of design — architecture, urban planning, historic preservation, product and graphic design — although these arts more intimately affect our lives than any except the media arts, for which curriculum guides are also unavailable. Even in music, half the school districts do not have recommended or required textbooks, a situation much worse in the other arts.

Secretary of Education William Bennett proposed in December 1987 a model high school curriculum, the graduation requirements of which included a minimum of one semester each in art history and music history. It is the conclusion of the present report that the minimum high school requirement should be two full years involving the arts, to provide *all* high school students with a basic sense of the history and vocabularies of the arts and their significance in society. It should be remembered that the arts include more than visual art and music; high school requirements should, building on the knowledge and skills learned in elementary and middle school, assure for all students basic familiarity with the contributions of all the arts as a condition of obtaining a high school diploma.

This minimum two-year requirement might be met either through arts courses per se or through making the arts integral parts of other courses. This conclusion is based on the belief that the basic learning objectives of arts education might be achieved in different ways in different schools or districts and that integration of arts components in other courses (e.g., history) might be an effective way to accomplish at least some of these objectives.

Testing and Evaluation

Schools have little or no idea what their students are learning about the arts. Nowhere in the country is there any systematic, comprehensive, and formal assessment of student achievement in the arts; nor is the effectiveness of specific arts programs in local school districts generally measured. Only about 6 percent of school districts require district-wide competency tests in the arts for promotion to the next grade.

There are three unique problems involved in arts testing. The first is the lack of standardized curricula, texts, and resource materials against which to test; the second is that the arts do not readily lend themselves to easily scorable testing formats; and the third is the dispute among arts educators about whether testing in arts education is a good idea.

Nationally, our only sense of student achievement and knowledge of the visual arts and music comes from the National Assessment of Educational Progress (NAEP), which twice in the 1970's assessed student abilities in those subjects. Although the original NAEP plan provided for a

new assessment of music and visual art at least every six years, none has been conducted since 1979, and some data from the 1978-79 visual art assessment remain unreported. The Reagan administration has proposed expansion of NAEP to provide for state-by-state comparisons. If the NAEP expansion were extended to the arts, it would permit national and state-level assessment and comparisons. Testing in the arts cannot be left exclusively to the state and district levels; they need help in designing and implementing the tests. NAEP is in a unique position to do this.

The need to measure individual progress toward curricular goals and objectives and to evaluate the relative effectiveness of arts education programs is as essential as for other subjects. Without testing and evaluation, there is no way to measure individual and program progress, program objectives will lack specificity, and arts courses will continue to be considered extra-curricular and unimportant. As the Dutch experience with testing in the arts demonstrates, what is tested is what is viewed as important.

Teachers

The arts must be taught by teachers knowledgeable in them. At the elementary level, schools often have to rely on general classroom teachers to provide arts instruction; fewer than half the nation's elementary schools have access to full-time music specialists and only a quarter have access to full-time visual arts specialists (see Figure 2, p. 23). But is the general classroom teacher required to take specific courses or units in the arts in order to be certified to teach? As of 1984, in most states the answer was "no."

Arts specialists, on the other hand, usually have intensive training in their discipline and in how to teach it. Virtually all states certify specialists in visual art and music, but only 24 states certify theater teachers and only 16 certify dance teachers. We know of no state which has established teacher certification programs in the design and media arts.

Substantively, teacher preparation programs for arts specialists need to provide more emphasis on history, critical analysis, aesthetics, and the philosophy of the arts if arts education is to provide an understanding of the artistic heritage, as stipulated in most state curriculum guides. State credentialing agencies need to strengthen standards for arts teacher preparation programs and develop comprehensive examinations for teacher certification. Also, once established in their profession, arts teachers need opportunities to grow in knowledge and expertise; comprehensive, systematic programs for this are few.

Recent proposals for reform in the teaching profession—specifically those of the "Holmes Group" and the Carnegie Task Force on Teaching as a Profession—could have important implications for teachers of the arts, whether generalists, arts specialists, or teachers specializing in subjects other than the arts. The emphasis on a broad liberal arts undergraduate

education (with less emphasis on education courses) combined with a proposed requirement for graduate study in education methods could provide greater opportunity at the undergraduate level for substantive education in the arts for the elementary school classroom teacher. But for the arts specialist, such an approach might detract from the best preparation programs. These combine education in the art form with education in teaching methods and actual practice in classrooms, and employ professors of arts education to teach pedagogy in such a way that methods are not divorced from content.

Reform proposals also emphasize that the standing and compensation of teachers must be raised. This is especially critical in light of the prospective turnover in the teaching profession as many teachers approach retirement. Shortages of arts teachers exist even now in schools. The children of the "baby boom" generation will intensify the demand for more teachers, including arts teachers. To meet these demands, more attention must be paid to improving the professional environment for teachers so as to encourage new entrants into the teaching force. Consideration also needs to be given to encouraging and credentialing qualified practicing artists and arts professionals to supplement arts teachers, particularly where shortages exist.

Research

Although most arts education research is conducted by college and university professors who must personally subsidize their own efforts, American researchers continue to produce a small but vital body of research that surpasses that of other countries in volume and quality. Unfortunately, most of this research is confined to the visual arts and music and fails to reach teachers in schools.

Baseline and trend data are lacking on the goals and objectives of arts education programs, enrollment in such programs, staffing patterns, and instructional and assessment practices. There is also a severe lack of research about how young people learn about the arts and what they can be expected to learn at what ages. The federally sponsored Educational Research Information Center (ERIC) regularly publishes abstracts on education, but is incomplete in its coverage of arts education.

The Arts Endowment, working with the U.S. Department of Education, is attempting a modest remedy here. The two agencies have collaborated in developing state and school-district-level data, and in September 1987 established research centers for arts and literature education. It is hoped that these centers, together with an Elementary Subjects Center (which includes the arts), will provide a national resource for educational decision makers and arts education professionals.

Leadership

The arts are taught in schools because concerned citizens value them. If they are to be taught well, they must have the support of all four sectors that affect arts education: the governance, education, arts, and business-producer sectors. The governance sector, which includes elected and appointed government officials as well as parents and the voters, sets the societal goals to be achieved by education. The education sector, which includes education agencies, administrators, teachers, and professional associations, implements educational programs. The arts sector creates, produces, presents, exhibits, and preserves the arts. The business-producer sector produces materials, supplies, and equipment for use in schools.

To make arts education an educational priority and a part of general education reform in the United States requires leadership from individuals and organizations in each of the four sectors. To do this, they must (i) have a consensus on the nature of arts education and how it can be accomplished, (ii) understand the factors that will lead to change, and (iii) work together to effect that change. Individuals and organizations within each of the four sectors must transcend their special interests and work together if arts education is to become a basic and sequential part of the curriculum.

All members of the education sector must understand that providing basic arts education is a fundamental part of their responsibility, and thus in their professional interest to implement. The arts can only become integrated into the basic curriculum through the efforts of the education sector. However, the advocacy of arts education programs cannot just be left to the arts educators alone, for they lack the clout by themselves to make the arts a national priority. Initiatives from outside the education sector need to be coordinated with state and locally mandated school programs.

Within the education sector, leadership in schools and school districts is most important. While the efforts of the arts teachers are of the highest importance, leadership of school and school district administrators (principals and superintendents) and of school boards is equally essential. Where this leadership is present, the arts can become a basic and the schools can make a difference; where it is not, they cannot. In exercising this leadership, school administrators must have as high expectations for arts education and provide for as frequent assessment of student progress as they do for other basic subjects.

Arts education has high standing in principle in the governance sector. Presidents of the United States, from George Washington on, have affirmed the importance of the arts. Congress is similarly on record, changing the purposes of the enabling legislation of the National Endowment for the Arts and requesting this report. So are state

legislatures, as evidenced by the enactment of new graduation requirements in the arts by some states and in the 1983 resolution of the National Conference of State Legislatures. The National Congress of Parents and Teachers (the National PTA) has stated that the integration of the arts in the elementary, secondary, and continuing education curriculum is a "goal of the highest priority."

In the education sector, the National School Boards Association, the Council of Chief State School Officers, the Board of the Association for Supervision and Curriculum Development, the American Federation of Teachers, the National Education Association, and the College Board have all called for making the arts a more basic and sequential part of K-12 education. Of particular interest is the 1988 resolution of the Executive Council of the American Federation of Teachers:

> The basic school curriculum, K-12, as a part of a balanced course of study in the arts, sciences and humanities, should require all students to study the arts. Students should be required to study the literary arts; the visual arts including design and architecture; the performing arts including music, dance, opera and theater; and the media arts in order to ensure that all students will be able to develop their creative potential and graduate from high school with a basic understanding of their society and of civilization.

The U.S. Department of Education and Secretary William Bennett have shown particular commitment to arts education as a basic. In his 1986 report on elementary education, *First Lessons*, Secretary Bennett declared that the "arts are an essential element of education just like reading, writing and arithmetic." His 1987 booklet containing suggestions for a core curriculum for American high school students, *James Madison High School: A Curriculum for American Students*, recommended one semester each in art history and music history. Secretary Bennett has also spoken out on behalf of arts education on several occasions.

The arts sector has always had a major interest in arts education, although its primary efforts appropriately involve artistic creation, production, presentation, exhibition, and preservation. Both artists and arts institutions have, nonetheless, undertaken extensive and important programs of educational value. The commercial media of television, radio, the movies, recording, and publishing are most pervasive; young people spend more time in front of the television set than in school, and the popular culture is a part of the basic vocabulary of all young people.

State and local arts agencies, in addition to the National Endowment for the Arts, assist arts education in schools in their states and localities, primarily through funding, with Endowment help, artist residencies. Arts

sector advocates and trustees of arts institutions can be a major force on behalf of arts education, in some cases the only force. But, to be more effective, they need to mesh their efforts more closely with those in the education sector who have the responsibility to implement education programs.

The business-producer sector needs to be encouraged to do more for arts education. Of particular importance are the textbooks and audio-visual materials without which teachers cannot teach. Ways need to be found to induce this sector to produce and market these materials in areas presently lacking them. Today, only in music does one find complete sets of such materials.

The Endowment

The National Endowment for the Arts is to arts education what the National Endowment for the Humanities and the National Science Foundation are to humanities and science education. The Arts Endowment has from its inception assisted arts education, primarily through its Arts in Education Program. Until recently, the program concentrated on funding state arts agencies to place artists in residence in schools and other educational settings.

In addition, many of the Endowment's discipline programs have funded arts institutions to undertake educational projects of various kinds. While the Endowment's Challenge Program has in the past occasionally funded educational institutions, it was changed in 1987, in part so as to target assistance to projects which could develop "deeper and broader education in and appreciation of the arts."

In 1986, based on recommendations of the National Council on the Arts and following extensive field consultations, the Endowment shifted the thrust of its Arts in Education Program towards encouraging collaboration between state arts agencies and state education agencies in order to convince the education sector that it was its responsibility and in its interest to make the arts a basic and sequential part of K-12 education.

This shift was occasioned by Congress's making arts education a principal purpose of the Endowment's enabling legislation and by the Endowment's discovery, in its 1982 Public Participation in the Arts survey, that 61 percent of adult Americans were not participating in many of the arts the Endowment supports. It is the view of the Endowment and of the National Council on the Arts that one vital function of federal support of the arts is to help all Americans become familiar with and understand the great variety of art that lies outside the popular culture of the moment. The key to this is learning about the arts.

Notwithstanding the Endowment's increased emphasis on arts education, it spends less time and money, as a proportion of its overall activities, on arts education than do its counterpart agencies, the National

Endowment for the Humanities and the National Science Foundation, on humanities and science education. The Arts Endowment spends 3.3 percent of its current budget for its Arts in Education Program, compared to 12.8 percent of the Humanities Endowment's budget for humanities education and just over 5 percent of the Science Foundation's much larger budget for science education.

These differences derive from the fact that the Arts Endowment has traditionally focused its support on professional artists and arts institutions rather than education while the Humanities Endowment and the National Science Foundation have, from their beginnings, considered education to be one of their principal priorities. These differences may stem in part from the general perception that education in the humanities and sciences is necessary to understand, appreciate and use them, while the "serious" arts, like entertainment, can be experienced without knowing anything about them.

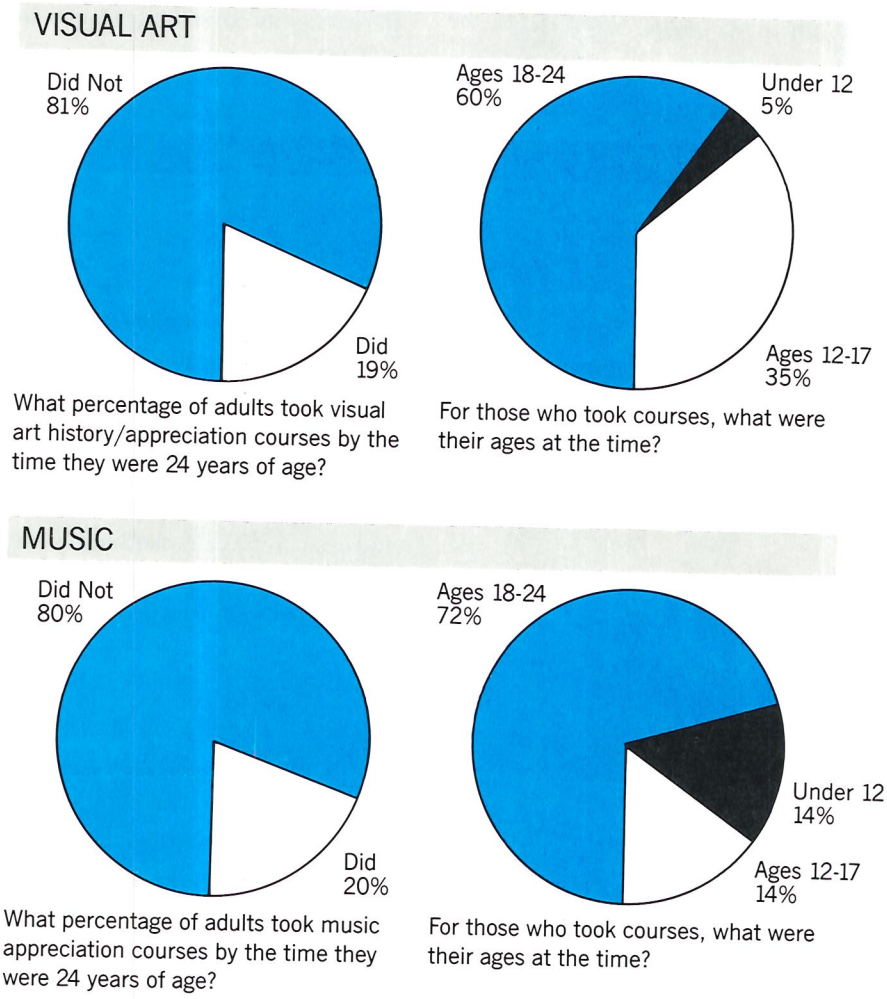
Any effort to make the arts a sequential part of basic education will necessarily take considerable time. Even if every school district in the nation were to agree tomorrow that sequential courses in the arts are essential to a proper education, it would be 13 years before the first student had completed a K-12 curriculum.

CONCLUSION

The results of years of neglect in arts education are evident in what adults say about their experiences in it. According to the Endowment's 1985 Survey of Public Participation in the Arts, most Americans say they have never had any form of arts instruction at all: 53 percent said "no" when asked if they had lessons or classes in music; 75 percent said "no" to lessons in the visual arts; 84 percent said "no" to lessons in ballet; 82 percent said "no" to lessons in creative writing. Eighty-four percent said they had never studied visual art appreciation; 80 percent said they had never studied music appreciation. Any instruction in music or the visual arts was likely to have occurred between the ages of 12 and 17, and music or visual arts appreciation courses were likely to have been taken only in college. This, of course, works to the disadvantage of those lacking higher education (see Figure 4).

Young people missing out on arts education not only fail to become culturally literate, they miss the joy and excitement of learning the skills of creation and problem solving in the arts. They learn neither how to communicate their thoughts and dreams nor how to interpret the communication of the thoughts and dreams of others. They miss out on learning the tools to discriminate and to make reasoned choices among the products of the arts. As John Adams, our second President, wrote to his wife, Abigail, young Americans have "a right" to this. They should not miss out.

Figure 4. Visual Art and Music Appreciation Courses Adults Polled in 1985 on Their Childhood Experiences



Source: Robinson, J. P., et al., "Survey of Public Participation in the Arts: 1985, Vol. 1, Project Report." December 1986, p. 371. Prepared under Cooperative Agreement NEA CA 85-24 with the National Endowment for the Arts, Washington, D.C.

RECOMMENDATIONS

Toward an Arts Curriculum

1. Arts education should provide all students with a sense of the arts in civilization, of creativity in the artistic process, of the vocabularies of artistic communication, and of the critical elements necessary to making informed choices about the products of the arts.

2. State education agencies and local school districts should adopt and implement explicit policies to make such arts education a sequential part of the basic curriculum for all students in grades K-12. These policies should define the curriculum to include each of the arts (dance, design, literature and creative writing, the media arts, music, opera and musical theater, theater, and the visual arts) and provide for instruction in history and critical analysis as well as production and performance. Most important, the policies should define a core of subject content and skills in the arts which all students would be required to achieve, and provide for a selection of required courses in relation to optional courses in the basic curriculum. It is particularly important that the policies include provision for the all-pervasive design and media arts. The policies should also provide for time, money, and qualified personnel to develop comprehensive and sequential curricula, instruction based on the curricula, and testing of student achievement and evaluation of school programs. To this end:

   A. State education agencies and school districts should identify, and achieve consensus on, the minimum knowledge and skills (in terms of student learning outcomes) that would satisfy state or district-mandated high school graduation requirements.

   B. Elementary schools should consider providing arts instruction, exclusive of English studies, for approximately 15 percent of the school week consistent with the aims of professional arts education associations. Four-and-a-half hours of arts instruction in a 30-hour elementary school week is fairly minimal if students are to gain a sense of the arts as described above.

   C. Junior high and middle schools (grades 6 through 8) should require *all* students to take arts instruction, exclusive of English studies, for at least 15 percent of the school year (the average for the majority of students in grades 7 and 8 is estimated at 17 percent). These requirements might be fulfilled through survey courses, through study of at least two of the arts, or through instruction integrated with other academic courses. The curriculum should specifically require study of the design and media arts, and teachers should be trained to teach these subjects.

D. High schools should require all students satisfactorily to complete two full years (or two Carnegie units) involving the arts (not as an alternative to courses like foreign languages or computer sciences) in order to receive a graduation diploma. The purpose is to provide *all* high school students with a basic sense of the history and vocabularies of the arts and their significance in society. This purpose might be achieved either through arts courses per se or through making the arts integral parts of other courses. High schools and school systems will have to certify which of their courses meet this purpose. They may also wish to consider a seven-period day in accommodating these and other increased requirements.

E. High schools should also offer optional introductory, intermediate, and advanced courses in each of the arts so that those interested and/or talented in an art form might be able to pursue that interest and talent.

F. State education agencies and school districts should engage knowledgeable experts to coordinate arts curriculum development and evaluation. The experts should work closely with teachers and school administrators, and with theoreticians and researchers, in order to employ the best available thinking in this effort. The experts should also engage the resources of artists, arts, and cultural institutions, teacher-training institutions, and commercial producers of classroom materials.

G. State and local education budgets should provide for making appropriate arts materials (e.g., textbooks, teacher manuals, and audio-visual aids) available to students and teachers. Where such materials do not exist, state education agencies and school districts should collaborate in developing incentives for their production.

The Case for Testing and Evaluation in the Arts

1. As in other subjects, students should be tested in the arts and their art work evaluated in order to determine what they have learned, and arts education programs should be evaluated to determine their effectiveness.

2. State departments of education, local school districts and schools should identify, implement, and evaluate procedures to test student achievement and evaluate arts education programs on a comparative basis. To this end:

A. Each school district should implement a comprehensive testing program in the arts based on the district's arts curriculum. The program should address creation, performance, history, critical analysis, and the place of the arts in society, and use both quantitative and qualitative measures to determine whether the student is achieving the curriculum's learning objectives.

B. Each school district should implement an evaluation program which assesses the merit of the curriculum, adherence to it, the adequacy of resources allocated to implement it, and the level of student achievement.

C. Each state education agency should develop evaluation procedures to evaluate district and school arts programs on a comparative basis in terms of state arts education goals.

D. Each state education agency should provide technical assistance to school districts to help them develop student testing and program evaluation procedures.

3. The U.S. Department of Education and the National Endowment for the Arts should work together to restore to the National Assessment of Educational Progress assessments in visual art, music, and literature. The NAEP writing assessment should include creative writing. Before the next NAEP reauthorization, methods for assessing theater, dance, the design arts, and media arts should be developed, including development of prototype questions. Remaining data from the 1979 visual art assessment which are still unreleased should be scored, analyzed, and released as soon as possible.

Teachers of the Arts

1. **Teacher Preparation and Certification.** State certifying agencies should strengthen arts certification requirements for all teachers whose responsibilities include the arts. Training of all teachers — elementary school classroom teachers, specialist arts teachers, and teachers of other subjects to which the arts are relevant — should include (i) study of important works of art (their craft, history, and significance to the civilizations which they symbolize) and (ii) study of techniques for creating or performing one of the arts. To this end:
A. *For elementary school classroom teachers,* each state certifying agency should establish arts requirements for certification; over half of the states do not have such requirements. These requirements should include at least two courses in the arts which stress content.

B. *For K-12 arts specialists,* each state certifying agency should require training in the history and critical analysis of the art form, as well as in production and performance. Half the university course work should be in the art discipline, and methods courses in arts education should be made an integral part of substantive instruction in the arts, not separated out as recommended in the Holmes and Carnegie reports. University courses in the arts disciplines should, where relevant, draw on the standards and recommendations of the National Association of Schools of Art and

Design, the National Association of Schools of Music, the National Association of Schools of Theatre, and the National Association of Schools of Dance. Faculty responsible for teaching these courses should test their ideas about arts teaching in actual teaching situations in elementary and secondary classrooms.

C. Teacher recruitment and certification in the arts of dance, design, the media, and theater should be strengthened and instituted in those states which do not now provide for them.

D. In a time when we are likely to face a shortage of qualified arts teachers, state certifying agencies should develop and implement flexible procedures that provide for special testing and certification of experienced practicing artists and arts professionals who can demonstrate a comprehensive background in the arts and substantial knowledge of the issues and methodology of K-12 arts education.

E. *For teachers of other subjects (such as history, geography, and foreign languages),* state certifying agencies and colleges and universities should require a basic general education in the arts. The arts are related to all school subjects, and all teachers should understand them well enough to use them to support and elucidate instruction in other subjects and to show how such subjects can contribute to an understanding of the arts.

F. Testing of teacher qualifications should be mandated as a condition of teacher certification. State certifying agencies should develop tests to evaluate teacher preparation and teacher preparation programs. Such tests should assess the general (liberal arts) preparation of teachers, their knowledge of art in the context of history and culture, their ability to analyze art, their performance and skill competencies, their knowledge of issues in arts education, and their skill in lesson planning and pedagogy.

G. Teacher preparation programs should emphasize the importance of working with local artists and arts institutions and provide information on how to draw on them.

2. **Teacher Recruitment.** Arts education professional associations, state departments of education, colleges and universities, and arts schools should undertake efforts to attract capable students to arts teacher preparation programs, including minority students. Special efforts should be made to recruit dance, design, media, and drama teachers.

3. **Teacher Professional Development.** Arts teachers, no less than teachers of other subjects, should be provided with opportunities to advance within their profession. State education agencies and school districts should develop standards and incentives to this end, and should promote career mobility within the school, district, region, or state. Such incentives should include full or partial reimbursement of expenses for summer studies and for attending professional meetings and conferences.

4. **Teaching Environment.** Local school districts should, consistent with state and local mandates, provide arts teachers with maximum flexibility to meet the individual needs of specific classes. They should also provide arts teachers with adequate compensation, facilities, administrative support, and teaching materials.

5. **Optimum Staffing.** Each school district should aim to provide arts instruction by trained arts specialists at all levels K-12. To this end:
A. Elementary school administrators should recruit teacher curriculum coordinators for each of the arts. Where available, arts specialists should be given this responsibility; where they are not available, classroom teachers with particular interests and qualifications in the arts should serve as coordinators in the interim. Coordinators should be given time and resources and be responsible for developing sequential arts programming, for assembling necessary resources, and for assisting teachers. Professional arts education associations, artists, and arts organizations can help the coordinators in these efforts.

B. Elementary school administrators should, especially in the upper elementary grades, assign the best arts teachers to teach the arts in several classrooms in addition to their own. In such a program, students would benefit from competent instruction and the number of subjects for which teachers would have to prepare would be reduced.

C. In middle, junior high, and high schools, all arts classes should continue to be taught by arts specialists, or if no arts specialist is available, by qualified people in the community, including experienced artists or arts professionals.

Research Priorities in Arts Education

More sustained support is needed to improve research in arts education. Such support should help attract better graduate students, assist apprenticeships, and permit the best researchers to undertake significant long-term studies on arts education. Research priorities should be thoughtfully established by funders in consultation with arts educators in

Fred Astaire in *Top Hat*, courtesy of the American Film Institute, Washington

order (i) to improve classroom instruction and (ii) to achieve a balance between the interests of individual researchers and general research needs. To this end:

A. National, state, and local funders (public and private) should increase their priority for arts education research.

B. The U. S. Department of Education and the National Endowment for the Arts should explore ways to assure that educational statistics, surveys, and reports cover the arts with the same attention and detail as for other school subjects. One of the Educational Resource Information Centers (ERIC) should enter into the system the large backlog of documents from previously published arts education research and periodically survey current sources of information to be entered into the system in the future.

C. Reports should be generated to synthesize and disseminate the results of completed studies, to make them available to classroom teachers and serve as bases for further research.

D. Comprehensive baseline data should be collected and periodically updated to establish trend lines concerning the extent to which education programs in each of the arts are in fact established in states and school districts. These should include data on curricula and course offerings, teachers, student enrollment, materials, facilities, classroom time, budgets, administrative support, testing and evaluation techniques, and learning outcomes.

E. Research is needed to learn what kinds of teacher training, curriculum development, instructional methodology, and resources are most effective in improving arts education.

F. Research is needed to tell us what can and should be taught at what ages and how it can best be taught. Research should be included on the complete act of learning—students' interactions with teachers, the use of resources in specific classrooms, and the influence of the family and environment on learning in the arts in comparison to learning in other subjects. Research is needed to provide more information on how students acquire knowledge of, and learn to interpret, the arts; how students perceive, value, perform, create, and use the arts; and how learning in the arts broadens perspective, gives a sense of the human condition, and fosters reasoning ability.

Leadership in Arts Education

The governance, education, arts and business-producer sectors should work together to convince parents and political and education leaders at the state, district, and local levels that education is complete and acceptable only when the arts are included as essential components sequentially taught. Making the case for arts education to state and local leadership is a political job requiring greater effort than it does for school subjects that large segments of the public already perceive to be basic. To this end:

A. National, state, and local arts education advocates need (i) to develop greater consensus on the objectives of arts education—what students are expected to learn at what ages, (ii) to obtain official recognition of the importance of arts education from the highest levels of political leadership — and then (iii) to work cooperatively to plan for and implement effective programs in school districts and schools (as a part of general education reform).

B. The case for arts education should be made in the same way as for any other subject: i.e., for sequential and testable instruction by qualified teachers, with high school graduation requirements that specify the arts (not in the alternative with other subjects), and with adequate time, money, curricula, and materials.

C. State education and arts agencies should work cooperatively with regional and local education and arts agencies, professional organizations, artists and arts institutions to provide leadership and support for improving arts education.

D. At the local level, community leaders (in particular the trustees of arts organizations) should work with local school boards, parent-teacher associations and schools to ensure that the arts are in fact sequentially taught in schools by qualified teachers for *all* students (not just the gifted and talented).

E. Programs should be instituted to help local school board members and education administrators understand why it is their responsibility, and thus in their interest, to make arts education a priority. These programs should help local school board members and education administrators to provide leadership for this part, as for other parts, of the curriculum.

The Role of the National Endowment for the Arts

The National Endowment for the Arts, which is to arts education what the National Science Foundation is to science education, should (i) make the case for arts education, (ii) facilitate collaboration among the four sectors concerned with arts education (governance, education, arts, business-

producer) to make it a basic and sequential part of school instruction, and (iii) assist development and distribution of curricular, instructional, and assessment models for the benefit of state and local education authorities. To this end:

A. The policies and resources (staff and money) of the Endowment for arts education should be continued and strengthened over a period of at least 10 years in order to allow implementation of present policies and of the recommendations in this report to bear fruit. The Fiscal Year 1989 budget request for the Endowment's Arts in Education Program provides for such strengthening in that year.

B. The Endowment should provide the President and the Congress a report on progress in arts education in preparation for the Endowment's reauthorization in the mid-'90's (the reauthorization which follows anticipated reauthorization in 1990).

C. The Endowment should advocate the development of higher standards for state and local arts curriculum guides, courses, and curriculum materials. It should provide limited funding to assist state/local curriculum development. It should, in cooperation with the U.S. Department of Education, convene a meeting of experts to review curricular materials (including the work on curricula of the new national research centers on the arts, literature, and elementary subjects) with a view to making recommendations on arts curricula and on school programs to implement them.

D. The Endowment should work with the U.S. Department of Education to develop a plan for the inclusion of each of the arts in the National Assessment of Educational Progress. The plan should include analysis of whether arts education might best be assessed by (i) separate assessments for each of the individual arts, (ii) a general arts assessment, (iii) integrating arts assessments with other subject area assessments, or (iv) a combination of these.

E. The Endowment should provide limited funding to assist state-level development of model assessment plans, programs and procedures, both with respect to programs and student testing.

F. The Endowment should encourage (i) state education agencies and arts education associations to recruit highly qualified arts teachers; (ii) state certifying agencies to raise standards for teacher certification and teacher preparation programs accreditation; and (iii) school boards to

Frank Stella. *Quaqua! Attaccati La! 4x*. 1985. Hirshhorn Museum and Sculpture Garden. Smithsonian Institution. Washington

hire qualified arts teachers. The Endowment should encourage the arts sector to lend support to these efforts.

G. The Endowment should continue to identify areas in which there is a need for systematic and regular collection of baseline survey data on arts education, and it should disseminate the results of its studies and data to the arts education communities and the public. The Endowment should also provide limited funding to assist efforts to translate research into classroom practice.

H. The Endowment should appoint an ongoing Advisory Board (with representatives of the governance, education, arts, and business-producer sectors) whose purpose would be to institute a national dialogue on:

> (i) what students, at a minimum, should know of and about the arts when they graduate from high school, (ii) how required course units might be structured to include teaching of these minimum requirements, and (iii) what evaluation mechanisms might be appropriate and effective to assess whether students have actually mastered such materials and skills.

The Advisory Board should specifically advise the Endowment on:

> (i) activities and efforts which it could undertake to ensure that the recommendations in this report are addressed by the appropriate parties, (ii) development (with appropriate agencies and associations) of proposals for a master plan for arts assessment as part of the National Assessment of Educational Progress, (iii) development of a plan by which exemplary school and district arts programs might be identified, recognized, and rewarded (e.g., exemplary schools, programs and teachers); and (iv) the report to the President and Congress suggested for the Endowment's mid-'90's reauthorization.

I. The Endowment should provide a national model for the kind of collaboration necessary to make progress in arts education. The model should in particular include the U.S. Department of Education, the National Endowment for the Humanities, and the national associations that can influence arts education. The Endowment should assist states, localities, and the arts education community generally to develop a clearer vision of what arts education in the United States can and should be.

WHAT OUR PRESIDENTS HAVE SAID ABOUT THE ARTS

George Washington
Letter to Reverend Joseph Willard, March 22, 1781

"The arts and sciences essential to the prosperity of the state and to the ornament and happiness of human life have a primary claim to the encouragement of every lover of his country and mankind."

John Adams
Letter to Abigail Adams May 12, 1780

"I must study politics and war that my sons may have liberty to study mathematics and philosophy. My sons ought to study mathematics and philosophy, geography, natural history and naval architecture, navigation, commerce, and agriculture, in order to give their children a right to study painting, poetry, music, architecture. . . ."

Thomas Jefferson
Letter to James Madison, September 20, 1785

"You see I am an enthusiast on the subject of the arts. But it is an enthusiasm of which I am not ashamed, as its object is to improve the taste of my countrymen, to increase their reputation, to reconcile to them the respect of the world, and procure them its praise."

Franklin D. Roosevelt
Address at Temple University, Philadelphia, PA February 22, 1936

"Inequality may linger in the world of material things, but great music, great literature, great art and the wonders of science are, and should be, open to all."

Dwight D. Eisenhower
Remarks at opening of new American galleries at the Metropolitan Museum of Art, October 24, 1957

"Art is a universal language and through it each nation makes its own unique contribution to the culture of mankind."

John F. Kennedy
Remarks on behalf of the National Cultural Center National Guard Armory November 29, 1962

"Art and the encouragement of art is political in the most profound sense, not as a weapon in the struggle, but as an instrument of understanding of the futility of struggle between those who share man's faith. Aeschylus and Plato are remembered today long after the triumphs of imperial Athens are gone. Dante outlived the ambitions of 13th-century Florence. Goethe stands serenely above the politics of Germany, and I am certain that after the dust of centuries has passed over our cities, we too will be remembered not for victories or defeats in battle or politics, but for our contribution to the human spirit. . . ."

Lyndon B. Johnson
Remarks at signing of the Arts and Humanities Bill, September 29, 1965

"Art is a nation's most precious heritage. For it is in our works of art that we reveal to ourselves, and to others, the inner vision which guides us as a Nation. And where there is no vision, the people perish."

Richard M. Nixon
Address at the Annual Conference of the Associated Councils of the Arts, May 26, 1971

"We, this Nation of ours, could be the richest nation in the world. We could be the most powerful nation in the world. We could be the freest nation in the world—but only if the arts are alive and flourishing can we experience the true meaning of our freedom, and know the full glory of the human spirit."

Gerald R. Ford
Message to the Congress, transmitting Annual Report of the National Endowment for the Arts and the National Council on the Arts June 23, 1976

"Our Nation has a diverse and extremely rich cultural heritage. It is a source of pride and strength to millions of Americans who look to the arts for inspiration, communication and the opportunity for creative self-expression."

Jimmy Carter
Remarks at a White House Reception National Conference of Artists April 2, 1980

"The relationship between government and art must necessarily be a delicate one. It would not be appropriate for the government to try to define what is good or what is true or what is beautiful. But government can provide nourishment to the ground within which these ideas spring forth from the seeds of inspiration within the human mind. . . ."

Ronald Reagan
Remarks at the National Medal of Arts White House Luncheon, June 18, 1987

"Why do we, as a free people, honor the arts? Well, the answer is both simple and profound. The arts and the humanities teach us who we are and what we can be. They lie at the very core of the culture of which we're a part, and they provide the foundation from which we may reach out to other cultures so that the great heritage that is ours may be enriched by — as well as itself enrich — other enduring traditions."

Endowment's condemnation of teaching that emphasizes narrow skills at the expense of content and understanding; we agree that the teaching of literature has deteriorated sharply since its subsumption under the so-called "language arts"; and we strongly support the Humanities Endowment's plea for increasing the hours devoted to history, the only discipline through which our children can gain both a sense of kinship with the great thinkers and doers of the past, and a foundation from which to transmit their own culture to future generations.

Isaac Clarke's first report to Congress comprised seven volumes. They were filled with legislative actions, school-committee records and reports, interviews with officials, local histories, speeches, and statistics. *Toward Civilization* is only one volume, but it captures the essence of the problem and points to practical ways in which the improvement of arts education might be addressed.

Written to fulfill the congressional mandate, *Toward Civilization* is also intended as an open letter to the American people, to the education community, to those who love the arts and understand their importance in education. For it is in the people's hands that the future of arts education rests.

SOURCE MATERIALS

Toward Civilization relies heavily on two recent surveys conducted with the support of the U.S. Department of Education: one at the state level and one at the school district level. The 1985 *Arts, Education and the States* report sets out the findings of a 1984 survey of state education agencies undertaken by the Council of Chief State School Officers. (The survey was jointly sponsored by the Rockefeller Foundation, the U.S. Department of Education and the National Endowment for the Arts.) The 1988 "Public School District Policies and Practices in Selected Aspects of Arts and Humanities Instruction" report sets out the findings of a 1987 survey of a national probability sample of 700 school districts. This survey was undertaken especially for this report to Congress as a joint project by the U.S. Department of Education, which funded it, in collaboration with the National Endowment for the Humanities and the National Endowment for the Arts.

As directed by Congress, *Toward Civilization* contains a synthesis of the information and insights contained in previous studies. It includes, among other things, review of 3,000 Educational Resource Information Center (ERIC) abstracts on arts education; the 1985 report by the Music Educators National Conference, *Arts in Schools: State by State;* the 1986 report by Mills and Thomson for the National Art Education Association, *A National Survey of Art(s) Education, 1984-85: A National Report on the State of the Arts in the States;* John Goodlad's *A Place Called School* (1984); Laura Chapman's *Instant Art, Instant*

Culture: The Unspoken Policy for American Schools (1982); Ernest Boyer's *High School* (1983); Theodore Sizer's *Horace's Compromise* (1984); *A Nation Prepared: Teachers for the 21st Century* (1986), from the Carnegie Forum on Education and the Economy; *Time for Results: The Governor's 1991 Report on Education* (1986); the 1984 Rand Corporation report by Day et al.; *Art History, Art Criticism, and Art Production: An Examination of Art Education in Selected School Districts* (prepared for the Getty Center for Education in the Arts); and the National Assessment of Educational Progress first and second assessments of art and music (1974 and 1981) and the writing assessment (1986).

We also reviewed arts curriculum guides from states and local school districts, books relating to education in the various arts, textbooks used by children for arts instruction, and textbooks used for the education of arts teachers. Interviews were conducted with education authorities, members of state and local arts agencies, representatives of professional associations, representatives of arts advocacy groups, teachers, supervisors, school administrators, publishers, testmakers, and members of the public.

ACKNOWLEDGMENTS

The study was undertaken in cooperation with the U.S. Department of Education and in consultation with the Committee on Labor and Human Resources of the Senate and the Committee on Education and Labor of the House of Representatives. Many people have contributed to this report. We sought information, advice, and assistance from educators, artists, academics, professional associations, arts organizations, state and local agencies, and others. Many invested considerable time in helping us. We are grateful to all of them.

We are particularly grateful to Representative Pat Williams, Chairman of the House Subcommittee on Postsecondary Education, whose deep concern for the quality and availability of arts education has contributed much to our efforts in this area. We are grateful to Representative E. Thomas Coleman and Representative Steve Bartlett for their help and interest in this effort and to Representative James M. Jeffords for arranging hearings on this subject in 1984. We are also grateful to Senators Claiborne Pell and Robert T. Stafford for their leadership in our reauthorization and for the leadership and support in this area of our appropriations committees who have approved funding for arts education over the years, in particular Representatives Sidney R. Yates and Ralph Regula and Senators Robert C. Byrd and James A. McClure.

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ment) and Counselor to the Secretary of Education, and his staff, for their invaluable assistance.

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Finally, we are especially indebted to the members of the National Council on the Arts and the Endowment's Advisory Committee, organized specifically to guide preparation of this report. Council and committee members were consulted throughout the study process and provided invaluable advice. Representing a variety of artistic disciplines and points of view about arts education, committee members contributed immeasurably not only to the planning of this report but to its contents.

Parthenon, Athens, courtesy of the Greek National Tourist Organization

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Excerpts from The National Foundation on the Arts and the Humanities Act of 1965, as Amended (20 U.S.C. 951 et seq.)

Sec. 10 (e)(1) The Chairperson of the National Endowment for the Arts and the Chairperson of the National Endowment for the Humanities, with the cooperation of the Secretary of Education, shall conduct jointly a study of —

(A) the state of arts education and humanities education, as currently taught in the public elementary and secondary schools in the United States; and

(B) the current and future availability of qualified instructional personnel, and other factors, affecting the quality of education in the arts and humanities in such schools.

(2) The Endowments shall consult with the Committee on Labor and Human Resources of the Senate and the Committee on Education and Labor of the House of Representatives in the design and the implementation of the study required by this subsection.

(3) Not later than two years after the date of the enactment of the Arts, Humanities, and Museums Amendments of 1985, the Endowments shall submit to the President, the Congress and the States a report containing —

(A) the findings of the study under paragraph (1);

(B) the Endowments' views of the role of the arts and humanities in elementary and secondary education;

(C) recommendations designed to encourage making arts and humanities education available throughout elementary and secondary schools;

(D) recommendations for the participation by the National Endowment for the Arts and the National Endowment for the Humanities in arts education and humanities education in such schools; and

(E) an evaluation of existing policies of the National Endowment for the Arts and the National Endowment for Humanities that expressly or inherently affect the Endowments' abilities to expand such participation.

House Report 99-274 (99th Cong. 1st Sess.) Language Regarding Arts and Humanities Education

The Committee commends the initiatives undertaken by both Endowments with respect to arts and humanities education and urges both Chairpersons of the Endowments to expand upon their efforts in these areas. The National Endowment for the Humanities' support of seminars and institutes for high school and college teachers has made available at modest cost important regenerative training for thousands of teachers. In addition, its effort to encourage colleges and universities to undertake curriculum reform, particularly of general education and degree requirements, and to emphasize the central disciplines of the humanities has had rapid and direct effects on many colleges and universities. The Committee encourages the Endowment for the Humanities to continue these efforts. Additionally, the Committee believes the issue of the condition of arts and humanities education should receive particular study.

The Committee believes that arts and humanities education is central to the stated purpose of this Act which includes encouraging national progress and scholarship in the humanities and the arts, making citizens masters of their technology, becoming a nation which is a leader in ideas and spirit, and bringing to all our citizens a better understanding of the past and a better view of the future. The Committee also recognizes that arts and humanities education play an important role in cognitive learning and in making the arts and humanities less elitist and more available to all citizens.

In Section 102 of the bill the Committee includes in the Preamble an elaboration of the role of the Endowments in arts and humanities education in the schools to enable students to recognize and appreciate the aesthetic dimensions of our lives, artistic and scholarly expression, and the diversity of excellence that comprises our cultural heritage.

In Section 105 of the bill, the Committee further clarifies by adding a provision to section 5(c), that the National Endowment for the Arts is authorized to fund projects and productions that will encourage public knowledge, understanding and appreciation of the arts.

The Committee incorporates this provision in section 5(c) to emphasize its belief that federal support for the arts should reflect a charge to NEA to fund activities and individuals for purposes which educate as well as entertain the public about the arts. The Committee believes that this addition to section 5(c) complements the other provisions in the section and strengthens the addition of the same theme to the Declaration of Purpose in the Act, encouraging arts education for the public in the broadest sense. The addition to section 5(c) should not be construed to lessen or alter the importance of the other responsibilities delineated in the section.

Finally, in Section 110 of the bill, the Committee requires that the

Chairpersons of the National Endowments jointly, with the cooperation of the Secretary of Education, conduct a study of the state of arts and humanities education, as currently taught in the public elementary and secondary schools in the United States.

The study must examine the current and future availability of qualified instructional personnel and other factors affecting the quality of education in the arts and humanities in public elementary and secondary schools. The Endowments must consult with the Committee on Labor and Human Resources of the Senate and the Committee on Education and Labor of the House of Representatives on the design and implementation of the study.

Not later than two years after the enactment of this bill the Chairpersons of the Endowments must submit to the President, the Congress, and the States a report of the findings of this study, recommendations for encouraging arts and humanities education, and recommendations for expanding the participation of the Endowments in public elementary and secondary education.

In addition, the study must assess the impact of the Endowments' policies on their participation in arts and humanities education. It must also assess whether any polices have positive or unintentional adverse effects on the Endowments' abilities to expand their support for and participation in promoting arts and humanities education in the public elementary and secondary schools.

Several excellent reports on arts in education in the schools by the Getty Foundation, the Chief State School Officers, the National Center for Education Statistics, the Endowments and others have been issued recently. It is the intent of the Committee that the Endowments use the information and findings in these studies as a primary resource for their own assessment of arts and humanities education.

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Thomas Jefferson, *Monticello*, the West Front and Gardens. Thomas Jefferson Memorial Foundation, Inc., James Tkatch

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KANSAS ASSOCIATION OF TEACHERS OF SCIENCE

March 2, 1989

To: The Senate Education Committee

From: Charlotte McDonald
Kansas Association of Teachers of Science
Immediate Past President
Blue Valley U.S.D. 229 Elementary Teacher

Regarding: Senate Bill No. 118

Kansas Association of Teachers of Science represents over 1000 Kansas science teachers from elementary through college levels. As professional educators we believe it is very important to give children a foundation and background in science. Lifetime motivation and interest begin at a young age, therefore it is important that all children of Kansas are provided the opportunity to learn science.

Our government is sounding the alarm that we are becoming less competitive with other countries in science and technology. Our environment is in desperate need of answers to global problems. The health and technology communities need bright young minds to solve problems and provide innovations.

Science provides an opportunity for development and practice of natural curiosity. Small children learn how to ask questions and experiment with their questions. Older elementary children learn how to predict, explore, experiment and solve problems. Through the science process skills students discover different thinking strategies.

Kansas Association of Teachers of Science believes that beginning early with hands-on science education will plant the seeds of curiosity and interest so Kansas children will grow up to be more concerned and involved in the world community.

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KANSAS ASSOCIATION OF TEACHERS OF SCIENCE

In a time when our nation is calling for improved science and technology training, science in the elementary school cannot be treated as an "extra" subject. It's status needs to be alongside reading, writing, arithmetic and geography. Section 1. of K.S.A. 72-1101 needs to be updated.

Currently elementary education majors are required to take a science methods course and an arts methods course but teachers are not required to teach these subjects because they are not listed in K.S.A. 72-1101.

Kansas Association of Teachers of Science believes that by adding "science and the arts" to the law, the legislature would communicate to school boards, administrators and teachers the importance of providing learning opportunities for elementary students in science and the arts.

New York Elementary School
936 New York Street
Lawrence, Kansas 66044
(913) 843-2163

LAWRENCE
PUBLIC SCHOOLS

3/2/89

Diane L. Miller, Principal
New York Elementary School
Lawrence Public Schools USD #497
Lawrence, Kansas 66046

I appreciate the opportunity to speak on an issue which I believe to be of vital importance to our youth and ultimately our nation's future. Before you lies the decision as to the significance of including science and arts programs in the elementary school curriculum. While both are equally important in the global perspective of elementary education, I would like to specifically address the issue of science education at the elementary level.

The expectations of our nation's youth are high. The public has challenged our nation's schools to provide a formal education which will enable these prospective adults to become responsible voters and efficient contributors to society. Furthermore, these youth are expected to be equipped with the knowledge and skills to enable them to keep America in its position as a world leader. Paralleling this increase in our nation's educational expectations; the last century has witnessed an acceleration in scientific discoveries and technological advancements, as well as increased demands due to social and economic development. Nevertheless, there has continued to be an alarming need for qualified individuals to work in areas associated with the fields of science and technology. Similarly, reports citing low science performance by American students in comparison to their peers in other countries has brought increased efforts to determine directions which can be taken within schools to positively bring about a change.

It is believed that a contributing factor in this deficit is the lack of elementary science programing to develop interest, confidence, and skills at the elementary level. It is a well documented fact that there exists minimal science instruction at the elementary level throughout our country and that most students experience their first concentrated instruction in science at the junior high level. For this reason, many have preconceived ideas as to the lack of relevance of science in their future.

As educators, we know that not all students enter into their educational years with equal opportunities or the same eagerness to learn. While we cannot presume to correct the inequality that is found in the lives of children prior to

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entering our doors, we do have the responsibility to do what is within our power to insure that adequate programming exists within the elementary educational system.

Recent findings reported by the National Assessment of Educational Progress lend support to efforts that initiate science education at the elementary level. If passed, the bill that is before you could serve to confirm a leadership commitment for maintaining America's strength as a leader in science and technology for our future.

In summation, I urge you to seriously consider the passage of Senate Bill 118. I maintain that it is our responsibility as governmental and educational leaders to continue to grow in our understanding of science and technology in order to make decisions based on valid information and rational analysis. The future of our nation's economic growth and place in the world market will be strongly impacted by our ability to promote opportunities for our youth to obtain greater knowledge in these fields.

Thank you for your consideration on this matter of educational importance.

TESTIMONY PRESENTED BEFORE THE

SENATE EDUCATION COMMITTEE

IN SUPPORT OF SENATE BILL #118

BY

JOHN R. STAVER, ED.D.

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KANSAS STATE UNIVERSITY

MANHATTAN, KANSAS 66506

THURSDAY, MARCH 2, 1989

Mr. Chairman and members of the Senate Education Committee, I was quite surprised to learn that science is not among required subjects for teaching in accredited elementary schools in Kansas. Few people regard science at the high school level as frivolous. Certainly many view that biology, chemistry, and physics are springboards to future occupations in medicine, engineering, and agriculture, occupations important to a healthy and prosperous United States of America. I speak in support of Senate Bill #118 because I view elementary school science as equal in importance to high school science. My support is based on several factors, but today I want to concentrate on one factor, evidence in the research literature which suggests clearly that elementary school science is a subject equal in importance not only to high school science but to the traditional 3Rs of elementary school, reading, writing, and mathematics.

Evidence indicates that early science experiences help youngsters from all socioeconomic levels in their language and logic development. For example, researchers have found that first graders who were involved with the "Material Objects" unit of the activity-based elementary science program entitled Science Curriculum Improvement Study out performed other first graders who used commercial reading readiness programs on

all subtests except copying for the Metropolitan Reading Readiness Test. Other research has shown that science activities provide children with opportunities to manipulate concrete materials, thereby promoting perceptual skills(e.g. tactile, kinesthetic, auditory, and visual) which themselves contribute to the development of concepts, vocabulary, and listening and speaking skills necessary for learning to read. Thus, hands-on, manipulative science experiences enhance the development of process skills in young children. These process skills are positively correlated with the development of reading readiness.

Moreover, the positive effect of activity-based science experiences on the continuing improvement of reading skills is not limited to the preschool and primary years. The results of several studies suggest that science instruction in the intermediate and upper elementary grades improves the acquisition of reading skills by enriching vocabulary and enhancing verbal fluence, logical thinking, concept formation, and communication skills.

In summary, elementary science that emphasizes an activity-based, materials-oriented approach effectively develops process skills which are central to thinking and learning in the language arts.

If we turn our attention to mathematics, we find similar evidence.

Research suggests that one essential skill for successful science related problem solving, especially at the secondary level, is mathematical aptitude. Other studies show that activity-based elementary science programs improve the problem-solving abilities of elementary students. For example, one researcher found that students who were taught science using Science Curriculum Improvement Study for five years out performed students who had studied science through a traditional textbook curriculum. The performance assessed was mathematical problem solving.

Using real world science related problems instead of contrived problems in mathematics can potentially enhance students' problem solving abilities as well as promote greater appreciation of the usefulness of problem solving in real situations. Again, the key ingredient seems to be the development of process skills through science and their usefulness in problem solving.

Let's turn our attention briefly to the international scene. The well publicized findings of international comparisons show that American students take fewer science courses and perform poorer on science and mathematics tests that their peers abroad. A recent study, however, shows that a group of eighth grade American students who studied

activity-based science for a period of six years performed as well as a group of Japanese eighth graders on a test of process skills.

Moreover, when these American students reach high school 70% take science beyond the requirement for high school graduation. The 70% figure certainly reflects these students' positive attitudes toward science.

Other research suggests that young children come to school with inquiring minds and an interest in science. For example, science library books are the second most frequent choice for students. Science and social science are the major topics for children's writing. 40% of the words chosen by beginning readers relate to science. Finally, science experiences result in more significant writing than do other stimuli.

In closing, I emphasize the notion that elementary school science can enhance thinking and learning skills which are in fact general learning skills that form the foundation for learning in the language arts and mathematics. I believe that an ancient proverb exists which says, "If I give you a fish, you can eat for a day, but if I teach you to fish, you can eat for a life time." Elementary science can "teach children to fish" though an emphasis on process skill development. Thus, it is my sincere hope that this committee and the entire Leglislature will approve Senate Bill #118. Thank you for taking time out of your busy schedules to hear my request.

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TESTIMONY PRESENTED BEFORE

THE SENATE EDUCATION COMMITTEE

IN SUPPORT OF SENATE BILL #118

BY

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THURSDAY, MARCH 2, 1989

Mr. Chairman and members of the Senate Education Committee, the fact that Kansas youth are not required to have science instruction in elementary school causes great concern to me.

> Our ability to maintain a strong and sound economy and to compete effectively in a world market place will depend largely on our ability to maintain the technological supremacy we have had in the past decade. (National Institute of Education - 1984, page 1.)

I speak in favor of Senate Bill #118 as a deterrent to the growing level of scientific illiteracy in our nation. With the rapidly expanding role of technology in modern life, the intellectual, political, and economic development of society is increasingly dependent upon engendering a scientifically literate citizen. Unfortunately, as these concerns become evermore apparent, evidence suggests the scientific training of many students in our school system lags well behind a broader state of scientific knowledge. The economic strength of Kansas would be well served by a voting population and work force with increased understanding of scientific concepts, principles, attitudes, and application. In this changing world, technological know-how is expanding along with knowledge that these skills are the capital of tomorrow's society. Further, we are already being challenged by other countries in areas where we have traditionally been superior--technology and science. It is clear that our children will live in an age that will require them to deal with complex technologically related problems and to work in technical occupations. Their ability to succeed will determine both the standard of living and the competitive standing of Kansas and the

United States. A critical part of their preparation for success involves the teaching of basic skills of scientific and technological literacy and problem solving to elementary students. Educational reports continue to indicate that Japanese and Western European youngsters outperform our students in terms of science and technology. Yet, a recent study conducted in Illinois illustrates that American youngsters who study science in an activity-based program do as well as their Japanese counterparts.

The National Science Board (NSB) Commission on Pre-college Mathematics, Science and Technology Report, Educating Americans for the 21st Century, provides us with a sense of this new direction for science education. Two major points from this document that impact the education of the science educator and environmental educator at Kansas State University:

1. Science and technological literacy should be established as a primary goal of K-12 schooling for all students.
2. Science education must be modified to include a substantial technological component.

The NSB Commission's Report further suggests two reasons why a more extensive reformulated program K-12 is needed. First, scientific and technological understanding is a key to adjusting to and participating in a world that will continue to change technologically for the foreseeable future. Second, since these changes occur in all realms of life--work, civic affairs, and personal--the case that such education is relevant to all Americans is compelling.

The National Assessment of Educational Progress found that science achievement among American students in all age groups has declined during the past two decades. But more importantly, many elementary and middle school students study little or no science. Of the minimal number of students taking high school chemistry or physics, disciplines vital to understanding the world, few enter a laboratory.

All the reports agree: American students do not learn enough science for these scientific times; there is not enough science being taught, and what is being taught is often taught poorly. They are virtually unanimous in articulating the following needs:

1. There is a need to increase the number of science courses required of all students.

2. There is a need for earlier and increased exposure to science in our schools.

3. There is a need to improve the quality of science teaching at all levels of the system.

Finally, the present situation relative to elementary science can best by summed up by the findings of the recent report, The Science Report Card published by the Educational Testing Service (1988). They report:

1. International studies demonstrate that American students take fewer science courses and perform more poorly on science and mathematics tests than their peers abroad.
   -- At grade 5, U.S. ranked in the middle in science relative to 14 other countries.
   -- At grade 9, U.S. ranked next to last.
   -- At upper grades of secondary school advanced science students in U.S. ranked last in biology and performed behind most countries in chemistry and physics.

2. Little time to spend on science in American schools
   -- 11% of 3rd graders have no science
   -- K-3 teachers spend 18 min/day on science while 4-6 spend 29 min/day.

The fact that many students opt out of taking high school science courses beyond those required weakens our pool of potential scientists for the future. This can be attributed to the fact that students start school (elementary) with a natural interest in science; however, with limited, if any, science experiences, their interest in science declines significantly by 7th grade. We must teach science in our elementary schools on a regular basis and in a quality manner. Students must see that science is both interesting and important.

Thus, it is my hope that you will strongly consider the approval of Senate Bill #118 within your committee and speak for its approval by the entire Legislature. I will be glad to provide additional materials supporting my position upon request. Thank you for your time.

ansas
Dance
Network

SENATE BILL 118--3/2/89

In support of Senate Bill 118 I am here to represent the dance community within the state of Kansas. We are the dance educators (both public and private, from pre-school to elementary to secondary to university to community and special populations,) the business persons (from studio owners to retailers to corporate sponsors,) the performers & students (from the professional to the amateur,) the dance artists, and citizens at large.

It is the consensus of this varied group of Kansas residents that the passage of this bill can only serve to enhance the status of the arts and sciences within the state thereby creating a better environment for all to live, work, & grow.

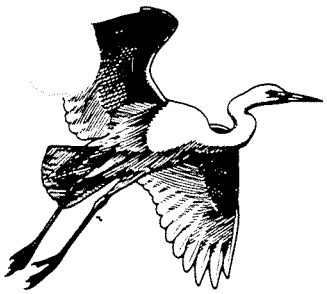
We believe Kansas to be on the brink of a new direction for the quality of life for its citizens. Senate Bill 118 will ensure that this new direction is not left to chance, but rather that it is a part of the basic philosophy for quality education sought by and deservent of the people of this state.

It is without reservation that we support the passage of this bill.

Mary L. Halverstadt
President, KDN

200 WEST 9TH
LAWRENCE, KANSAS
66044
(913) THE-ARTS

Attachment 8



Kansas Audubon Council

March 2, 1989
Testimony on SB 118
Senate Education Committee

My name is Joyce Wolf and I am here today to testify on behalf of the 5,000 members of the Kansas Audubon Council. When the Council met last fall to set its legislative priorities for this session, the delegates from the nine Kansas chapters voted unanimously to support the addition of science to the elementary curriculum. We believe that as our world becomes more technologically oriented, it is crucial that students have at least a minimal knowledge of the basic concepts of the sciences. The study of science enhances a student's ability to think critically and solve problems; it also stimulates imaginative thinking.

The Kansas Audubon Council feels especially that through the study of science, students will not only come to learn more about the world around them, but that in the process of acquiring that knowledge, they perhaps will come to have a greater appreciation as well as feelings of responsibility and stewardship for our environment at the local, state, national and global level.

We believe that while teaching science, other areas of the curriculum, like spelling, vocabulary development, mathematics, history, geography etc. can be incorporated into the lesson. The converse is not necessarily true, however. It is quite possible to teach all other areas of the curriculum and not incorporate any science concepts in the process.

It has been said that today's student will be in competition eventually not just with children being educated across the state and the nation, but with students from all over the globe. To prepare Kansas' children for that challenge, we believe, means they must be given the opportunity to develop those skills which the exposure to science nurtures. We urge the committee to vote yes on SB 118.

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REMARKS TO SENATE EDUCATION COMMITTEE

ROOM 123 SOUTH
3/2/89
1:30 P.M.

KANSAS MUSIC EDUCATORS ASSOCIATION
David E. Circle, Past President

Thank you for the opportunity to speak in support of **Senate Bill 118.** I am speaking on behalf of the 1338 members of the **Kansas Music Educators Association (KMEA).**

The KMEA Board met last Thursday in Wichita and voted unanimously in support of SB 118. That probably comes as no surprise. However, there were those on the Board that wanted more specificity in the wording of the bill to say **music and art.**

Why are we in favor of this bill? As professionals we believe in the value of music for all students, not just those with "talent" or those who attend schools in quality districts or those who were fortunate enough to be born into families who can afford music lessons outside school.

We know that students learn things in music that are both unique to music and that reinforce other areas of the curriculum. Time does not allow me to present an exhaustive list, however, a few examples are: listening skills, cultural awareness, reading skills, development of the right hemisphere of the brain, and an understanding of the musical elements that are fundamental to all music from children's lullabies to great masterworks.

Most of the elementary schools in the State already teach music, so why is it necessary or beneficial to pass this bill? For the same reasons that the law includes all the other curricular areas. Things that are important for students to study and thereby learn, should be **guaranteed** by law for **ALL** students. This is the responsibility of our State legislature and should not be left to chance, the State Board of Education, the availability of money, or the priorities of each individual school district.

By passing this bill you will be completing the total elementary curriculum and guaranteeing a complete education for all the elementary students in the State.

Are there any precedents for this bill? Yes. According to the **Revised Comparative Study of the Arts** published by the Kansas State Department of Education this year, thirty-three (33) states now require either "the arts" or specifically "art and music" for elementary students. This is not to say that because other states are doing it we should, too. Rather it is saying that other states have seen the value and wisdom of including the arts in their laws. Kansans are just as wise and insightful and we want our students to benefit from that wisdom.

A goal of the State Board of Education related to the arts is "To assist in making education in the arts available to all students." One of the objectives under this goal is "To encourage USD's to include an arts requirement as part of their elementary curriculum." Passage of this bill would bring about the realization of this goal and objective and make a significant contribution to the **quality of life in Kansas** for years to come.

KANSAS ART EDUCATION ASSOCIATIOI

Testimony on SB 118

March 2, 1989

By, Alicia Fickel, Immediate Past President Kansas Art Education Association

The members of the Kansas Art Education Association are committed to educational excellence - especially in arts education. Arts education in schools has emerged as a significant part of a balanced education of American youth. Arts programs have specific and substantive skills and concepts designed for all children in the school system, not just the talented or gifted. Expanding universes of knowledge as well as the complexities of world problems are turning our attention to curricular possibilities for meeting the challenge to education. Through arts education the student learns to express and communicate ideas, to read and interpret visual images and to recognize the achievement and expectations of civilized societies.

We believe that arts education is the core of human development and education. Arts education is essential for a literate society as well as basic in the education of students preparing to live now and in the 21st century. Therefore we maintain that all students should be afforded the opportunity of receiving arts instruction as a basic part of the elementary curriculum. Through such an addition to the curriculum students of Kansas may benefit by;

1) offering a cognitive knowledge of the arts disciplines, including a broad base of cultural and historical learning, procedures, skills and philosophies.
2) teaching of creative problem-solving and critical thinking.
3) intergrating and connecting multiple curriculum areas.
4) allowing for personal expression, the recovery or construction of meaning and the nurturing of imagination.
5) offering avenues for visual thinking that few other areas can provide.
6) provide career information about vocations in the arts.
7) develope self-discipline and confidence.

We recognize the leadership you provide to insure that each student in the state receives an excellent, well balanced education. It is our purpose to promote and maintain the highest quality instruction for our students in the arts throughout the state of Kansas. This would assure a citizenry that is enlightened and literate in the arts, and better prepared to take its place in a civilized society.

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KA S-NATIONAL EDUCATION ASSOCIATION / 715 W. 10TH STREET / TOPEKA, KANSAS 666 86

Carolyn Schmitt Testimony Before The
Senate Education Committee
Thursday, March 2, 1989

Thank you, Mr. Chairman. I am Carolyn Schmitt and I am president of Kansas-NEA. I appreciate this opportunity to visit with the committee about SB 118 which would add science and the arts to the list of subjects to be taught in the elementary schools in Kansas.

Kansas-NEA supports SB 118, not because this will cause great changes in the elementary schools of our state. On the contrary, science and the arts are both subjects which are taught in virtually all elementary schools in our state. The State Board of Education includes these subjects in its list of what must be included in the curriculum.

What SB 118 actually does is to elevate the status of science and the arts, either the actual or perceived status. With many individuals across the country calling for "back to the basics" and the elimination of "frills" in the curriculum, SB 118 serves notice to those people that Kansas considers science and the arts part of the basic core curriculum needed in our elementary schools. A knowledge of both subjects is necessary for a student to have a complete education. Lest there be any doubts about the importance of science and the arts, SB 118 answers those inquiries.

Kansas-NEA supports SB 118 as proper direction given by this legislature to the schools of Kansas. Thank you for listening to the concerns of our 22,000 members.

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Telephone: (913) 232-8271

Senate Bill 118

ELEMENTARY SCHOOLS, REQUIRING THE TEACHING OF SCIENCE AND THE ARTS

Testimony presented before the Senate Education Committee

by
Brilla Highfill Scott, Associate Executive Director
United School Administrators of Kansas

March 2, 1989

Mister Chairman and Members of the Senate Education Committee:

United School Administrators of Kansas would like to indicate our support for Senate Bill 118, providing for science and arts programs at the elementary level. Our association would suggest, however, that this issue be taken under advisement by the Kansas State Board of Education to determine the need for rules and regulations in these areas.

Thank you for your consideration of our request.

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(m:sb118)

820 Quincy, Suite 200 Topeka, Kansas 66612 (913) 232-6566

March 2, 1989

Testimony prepared by Ann Evans, Director of the Lawrence Arts Center and Board of Directors of the Association of Community Arts Agencies of Kansas in support of House Bill #3014.

As the statewide service organization for the over 75 local arts agencies in Kansas including the Lawrence Arts Center, ACAAK supports House Bill #3014 and encourages its passage and the inclusion of the phrase "science and the arts" in the basic law covering elementary curriculum.

At the request of Congress, the National Endowment for the Arts prepared a report on arts education. The report is entitled "Toward Civilization" and was published in the spring of 1988. In the report they attempt to identify the arts that should be taught in the schools, to present reasons for studying them, to show why the present state of the arts is unsatisfactory and to suggest avenues for its improvement.

I would like to quote the Chairman of the National Endowment for the Arts, Frank Hodsell in his foreword "We need to help our children move toward civilization. As we stand on the threshold of the 21st century, we are concerned, and rightly so, with the quality of the education of young Americans and whether it is preparing them for the challenges of the future. Many of the challenges will, obviously, be scientific and technological - and our schools must give our children the tools to deal with them. Less obviously, many of the challenges will be cultural. They will pose questions concerning what it is to be an American and what our civilization stands for. Education in the arts can help with this."

The report gives four reasons why arts education is important:

- to understand civilization
- to develop creativity
- to learn the tools of communication
- and to develop the capacity for making wise choices

They point how that it should not be feared that arts education might distract from basic skills, though essential to productivity, the example of Japan, whose productivity is without question is instructive. The Japanese require extensive arts instruction from K - 12.

Very important, arts education is essential for all students, not just the gifted and talented. Schools teach reading and math to all students, not just those who are good at those subjects.

One of the recommendations of the report is that state education agencies and local school districts should adopt and implement policies to make arts education a part of the basic curriculum for all students in grades K - 12. I would encourage the passage of this bill so that Kansas could be one of the states moving ahead in the education of our young people and preparing them for the 21st century.

"Toward Civilization: A Report on Arts Education", Prepared by the National Endowment for the Arts

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TESTIMONY FROM THE KANSAS ARTS COMMISSION

ON Senate Bill 118

The Kansas Arts Commission, established in 1966 by the Kansas Legislature to foster the growth and appreciation of the arts in Kansas, provides financial and technical services to individual artists, arts organizations, public agencies, and educational institutions through grants and other programs.

The Kansas Arts Commission supports Senate Bill 118. The Commission believes that the study of literary, performing, and visual arts is an integral part of basic education. The National Endowment for the Arts, a federal agency, in its recently published report to Congress, Toward Civilization, states

> "Basic arts education aims to provide all students, not only the gifted and talented, with knowledge of, and skills in, the arts. Basic arts education must give students the essence of our civilization, the civilizations which have contributed to ours, and the more distant civilizations which enrich world civilization as a whole. It must also give students tools for creating, for communicating and understanding others' communications, and for making informed and critical choices."

Arts education should begin with the earliest educational years when a child's creativity generally flows unabated. Children need to develop early on an awareness and appreciation as well as technical ability in all the arts. The results of a poll, taken in 1985, show that 68% of adults were never taken to art museums, plays, dances or music performances while growing up. Therefore, the role of educational institutions as being the primary transmitter of culture is all the more critical for the development both of future artists and future audiences.

Why is the Kansas Arts Commission concerned that the arts be added to a list of subjects which should be taught at the elementary level? The Kansas Arts Commission provides in excess of $440,000 of its total $780,000 FY88 program budget on arts education programs for children and adults. Arts education programs for children range from in-school touring performances, after-school and weekend activities, special children's programs, and master classes and workshops.

The Kansas Arts Commission and the arts industry of Kansas is concerned about the development of future arts audiences and arts consumers. Audiences are made, not born; today's children are bombarded with popular culture through mass communications and, without education programs which help them to build skills to make aesthetic choices, there is no other single influence--other than schools--to counteract the effects of MTV and other popular culture.

Arts institutions rely on ticket revenue to generate 30-40% of their operating income. The future will be grim indeed for the arts if there is only a graying of arts audiences in Kansas with no statewide systematic approach to developing new audiences.

Arts institutions can, and do, provide educational programs for the children of Kansas. But an annual 45-minute in-school performance by a music ensemble cannot replace the classroom teacher or special art, music or dance teacher to provide a context for greater understanding and creativity.

Senate Bill 118 provides direction to local school boards; decision-making on how to teach the arts will be made at the local level. The Kansas Arts Commission, in cooperation with the Kansas Department of Education, is developing curriculum guides in dance/creative movement, creative writing and theatre/creative drama to augment the existing curriculum guides in music and visual arts. In addition, the Kansas Arts Commission will be committing nearly $300,000 new state and federal funds to assist local school boards in developing arts programs for their districts.

The Kansas Arts Commission is the state arts agency, not an education agency. We are willing to commit our limited resources to arts education, but we cannot be as emphatic on the valued role that the arts have in basic elementary education as we can the addition of "the arts" to K.S.A. 72-1101.

(3-2-89)