

# KATS KAMP 2009

Conference on Science Education



# CELEBRATING 40 YEARS OF TEACHING SCIENCE

24-26 April 2009  
Rock Springs 4-H Center  
Junction City, Kansas

Kansas Association of Teachers of Science  
A State Chapter of the National Science Teachers Association

# KATS KAMP 2009 - PLANNER

FRIDAY - 24 APRIL 2009

<i>Time</i>	<i>Title</i>	<i>Location</i>
5:00 - 7:00 PM	KATS Dinner	Williams
5:00 - 8:00 PM	Exhibitors Open	Heritage Hall, Lower Level
7:30 PM	General Meeting Speaker: Mr. Michael Weiss Underwater Photography	Heritage Hall, Spencer Auditorium

SATURDAY - 25 APRIL 2009

<i>Time</i>	<i>Title</i>	<i>Location</i>
7:00 - 8:15 AM	Breakfast	Williams
8:00 AM		
8:30 AM - 5:30 PM	Silent Auction - Mohling Scholarship	Heritage Hall, Lower Level
9:00 AM		
10:00 AM		
11:30 AM - 1:00 PM	Lunch	Williams
1:00 PM	Keynote Speaker: Mr. Michael Weiss Deputy Program Manager Hubble Space Telescope Program	Heritage Hall, Spencer Auditorium
2:30 PM	Regional Meetings	Heritage Hall, Lower Level
3:00 PM		
4:00 PM	New Teacher Reception	Flint Hills Great Plains Auditorium
5:00 PM		
6:00 - 7:00 PM	Dinner	Williams
7:30 PM	Special Presentations Steve Jacobs: Grand Illuminator	Heritage Hall, Spencer Auditorium
Later	40th Anniversary Celebration, Social Hour	Heritage Hall, Lower Level

SUNDAY - 26 APRIL 2009

<i>Time</i>	<i>Title</i>	<i>Location</i>
7:00 AM	Interdenominational Vespers	Williams
7:15 - 8:30 AM	Breakfast	Vesper Lookout
8:30 AM		
9:30 AM		
10:30 AM		
11:30 AM - 12:30 PM	Lunch	Williams

Rock Springs 4-H Center Contact Information: 785.257.3221; 785.257.3304 (fax);  
Administration@rocksprings.net; 785.257.3221 (emergency)

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## SHARE YOUR PAPERS AND HANDOUTS ELECTRONICALLY

(EITHER BEFORE PRESENTING AT KATS KAMP OR WHEN YOU RETURN HOME)

Please feel free to share electronically the paper(s) you presented at the 2009 KATS KAMP by posting it and other handouts in the Resources Section found on the KATS Website Home Page. You need to send a copy of handout(s) and paper(s) to Vicki Andersen <[vanderkats@gmail.com](mailto:vanderkats@gmail.com)> and she can post them for you ont he website under Resources. Not only can you refer individuals attending you session(s) to the site, but the entire membership of KATS can access your ideas.

# KATS KAMP 2009 INFORMATION

## *Celebrating 40 Years of Teaching Science*

### CONFERENCE SCHEDULE

Friday 24 April 4:00–10:00 PM  
Saturday 25 April 8:00 AM–10:00 PM  
Sunday 26 April 8:30 AM – 12:30 PM

#### *Registration*

Johnson Administration Center  
Office Consultant: Vicki Andersen

#### *Registration Hours*

Friday 4:00 – 9:00 PM  
Saturday 7:00 – 10:00 AM

#### *Exhibitors*

Williams Lobby and Heritage Hall, Lower Level

#### *Exhibitor Hours*

Friday 5:00 – 8:00 PM  
Saturday 8:00 AM – 2:00 PM

#### *Meals*

All meals are served at the Williams Dining Hall  
Friday dinner 5:00 – 7:00 PM  
Saturday breakfast 7:00 - 8:15 AM  
Saturday lunch 11:30 AM – 1:00 PM  
Saturday dinner 6:00 – 7:00 PM  
Sunday breakfast 7:15 AM - 8:30 AM  
Sunday lunch 11:30 AM – 12:30 PM

### NOTABLE EVENTS

<i>Event</i>	<i>Day</i>	<i>Time</i>	<i>Location</i>
General Meeting: Speaker	Friday	8:00 PM	Heritage Hall, Spencer Auditorium
KATS Store	Saturday	All Day	Williams Dining Hall, Lobby
Silent Auction - Mohling Scholar	Saturday	8:30 AM	Heritage Hall, Lower Level
KESTA Rock Raffle	Saturday	Drawings 5 PM	Heritage Hall, Spencer Audit. hallway
Keynote Speaker	Saturday	1:00 PM	Heritage Hall, Spencer Auditorium
Region Meetings	Saturday	2:30 PM	Heritage Hall, Lower Level
New Teacher Reception	Saturday	4:00 PM	Flint Hills Great Plains Auditorium
Grand Illuminator	Saturday	7:30 PM	Heritage Hall, Spencer Auditorium
40th Anniversary Celebration	Saturday	Evening	Heritage Hall, Lower Level
Interdenominational Vespers	Sunday	8:00 AM	Vesper Lookout
KATS Board Meeting	Sunday	8:30 AM	Flint Hills

# ROCK SPRINGS 4-H CENTER RECREATIONAL OPPORTUNITIES

(Sign up requested; note any additional costs at sign up)

All events are on Saturday:  
*Archery* at 3:00 PM  
*Canoeing* at 4:00 PM  
*Global Positioning (GPS)* at 4:00 PM

## NAVIGATING THE PROGRAM

Sessions are listed in time order, e.g., the first Saturday sessions start at 8:00 AM, followed by the 9:00 AM sessions, and continue in order. The session location is coded and, also listed separately. For example, HCA is used to indicate the building, Heritage, and room, Conference Room A. The table that follows lists common meeting locations.

<i>Code</i>	<i>Building</i>	<i>Room</i>
HHSA.....	Heritage Hall.....	Spencer Auditorium
HCA.....	Heritage Hall.....	Conference A
HCB.....	Heritage Hall.....	Conference B
HCC.....	Heritage Hall.....	Conference C
HCD.....	Heritage Hall.....	Conference D
HSB.....	Heritage Hall.....	Seminar B
HSD.....	Heritage Hall.....	Seminar D
FHC.....	Flint Hills.....	Cottonwood
FHGP.....	Flint Hills.....	Great Plains Auditorium
FHP.....	Flint Hills.....	Prairie
FHS.....	Flint Hills.....	Sunflower
FHM.....	Flint Hills.....	Meadowlark
EC.....	Eyestone Conference.....	Eyestone Conference
JLL.....	Johnson Admin. Bldg.....	Lower Level
WW.....	Williams Dining Hall.....	Williams DH west end
WE.....	Williams Dining Hall.....	Williams DH east end
WL or DWL.....	Williams Dining Hall.....	Williams Lobby

Presenters may have complete information about their sessions. If so, their sessions are keyed to the codes that follow:

<i>Strand</i>	<i>Audience</i>	<i>Type</i>
H - Health	P - Primary	DEMO - demonstration
P - Physics/physical Science	I - intermediate elementary	HANDS - hands-on
B - Biology	M - middle school/junior high	POSTER - poster presentation
E or ES - earth Science	S- senior high	MAKE - make and take
NS - nature studies	C - college/university	FIELD - field trip/walk
C or CH - chemistry	G - General Audience	CP Methods - contributed paper methods
STS - science, technology, society		CP Content - contributed paper content
COM - computer/media		SC - short course

# *The Wendell G. Mohling Foundation*

Supporting

Kansas



Science Teachers

Professionally

A nonprofit organization.  
Please send donations to:

3120 SE Stanley Road  
Tecumseh, Kansas 66542

## ROCK SPRINGS MAP AND KEY

### *Numerical listing*

1. Johnson Administration Center
2. Earl W. Parsons Leadership Lodge
3. Activity Field
4. The Stone House
5. Leadership Adventure Course
6. Outdoor Education Center
7. Archery Range
8. Rifle Range
9. Frye Workshop Area
10. Parallel Church
11. Green Valley School
12. Parson Hilltop Area
13. Hilltop Storm Shelter
14. Craft Center
15. Ranch House
16. Volleyball Area
17. Clutter Memorial Shelter
18. Sundeck and Snack Bar
19. KCW Cottage
20. Dorothy Akin Wildflower Walk
21. Swimming Pool
22. Flint Hills Education Bldg.
23. Collegiate 4-H Center
24. Heritage Hall
25. Heritage Hall Parking
26. Vesper Lookout Parking
27. Vesper Lookout
28. Trap Range
29. Jellison Health Center
30. Meditation Chapel
31. Merle Eyestone Conference Bldg.
32. Williams Dining Hall
33. Staff Housing Area
34. Co-op Cottage
35. Asa Payne Cottage
36. Weatherwax Cottage
37. Lake Bluestem
38. Canoeing
39. Hansen Cottage
40. Stoneybrook Housing Area
41. Coffman Council Circle
42. Bankers Cottage
43. Preston Cottage
44. Finnup Cottage
45. Mears Barn
46. Ball Diamond
47. Christy Stables
48. Claussen Courts
49. Master Farmer Homemaker Shelter
50. Picnic Area
51. Tree Plaza
52. Flagpole Plaza and Amphitheater

### *Alphabetical listing*

3. Activity Field
7. Archery Range
35. Asa Payne Cottage
46. Ball Diamond
42. Bankers Cottage
38. Canoeing
47. Christy Stables
48. Claussen Courts
17. Clutter Memorial Shelter
41. Coffman Council Circle
23. Collegiate 4-H Center
34. Co-op Cottage
14. Craft Center
20. Dorothy Akin Wildflower Walk
2. Earl W. Parsons Leadership Lodge
44. Finnup Cottage
52. Flagpole Plaza and Amphitheater
22. Flint Hills Education Bldg.
9. Frye Workshop Area
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19. KCW Cottage
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5. Leadership Adventure Course
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6. Outdoor Education Center
10. Parallel Church
12. Parson Hilltop Area
50. Picnic Area
43. Preston Cottage
15. Ranch House
8. Rifle Range
33. Staff Housing Area
40. Stoneybrook Housing Area
18. Sundeck and Snack Bar
21. Swimming Pool
4. The Stone House
28. Trap Range
51. Tree Plaza
27. Vesper Lookout
26. Vesper Lookout Parking
16. Volleyball Area
36. Weatherwax Cottage
32. Williams Dining Hall

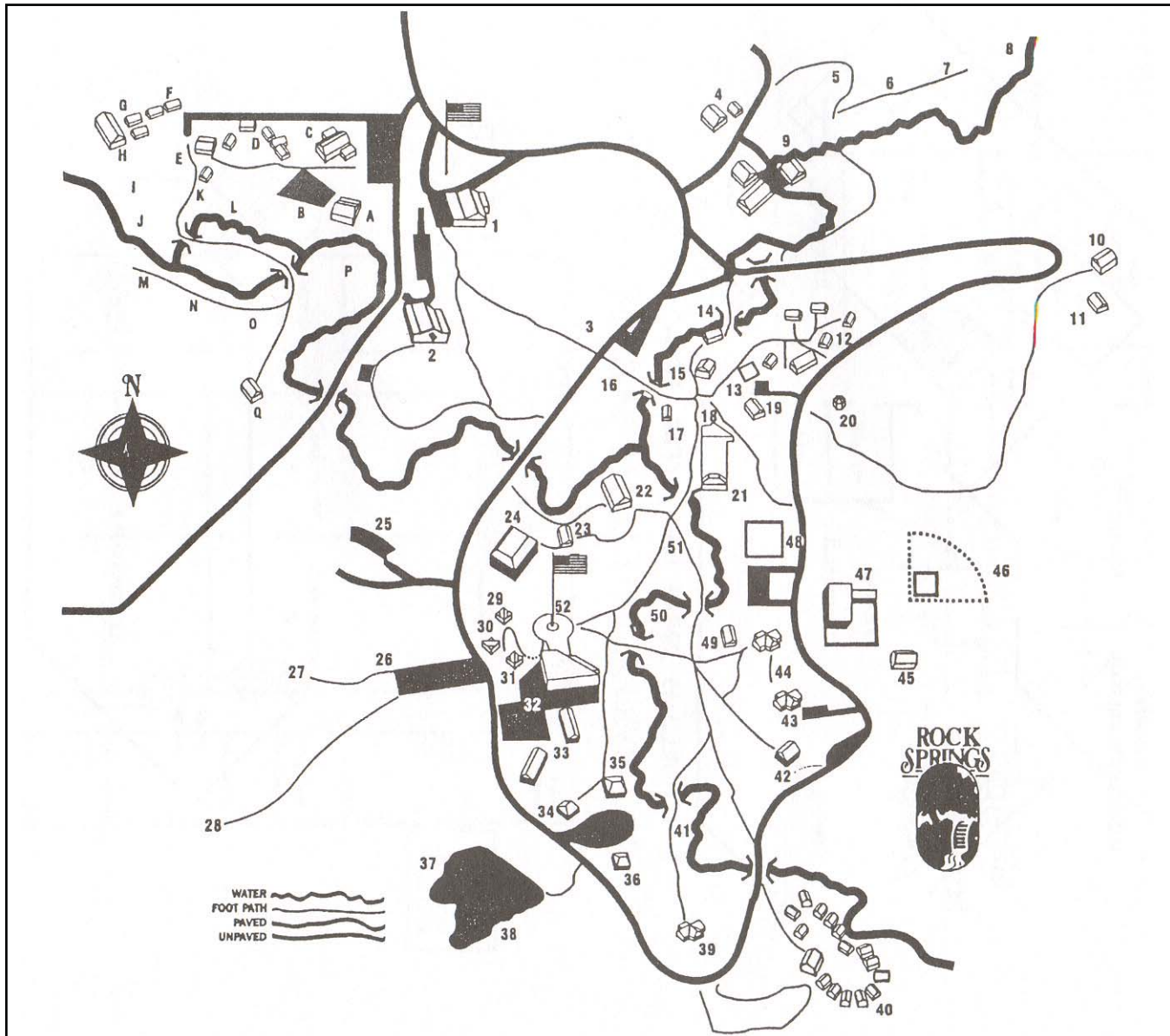
# Wa Shun Ga Area (northwest corner)

## Letter Order Listing

- A. Snack Bar
- B. Swimming Pool
- C. Wiedemann Dining Area
- D. Area A Housing
- E. Showerhouse
- F. Men's Staff Cottage
- G. Area B Housing
- H. Assembly Hall
- I. Picnic and Volleyball Area
- J. Outdoor Chapel
- K. Staff Cottage
- L. Canoeing
- M. Outdoor Education
- N. Rifle Range
- O. Archery Range
- P. Council Ring
- Q. Horses

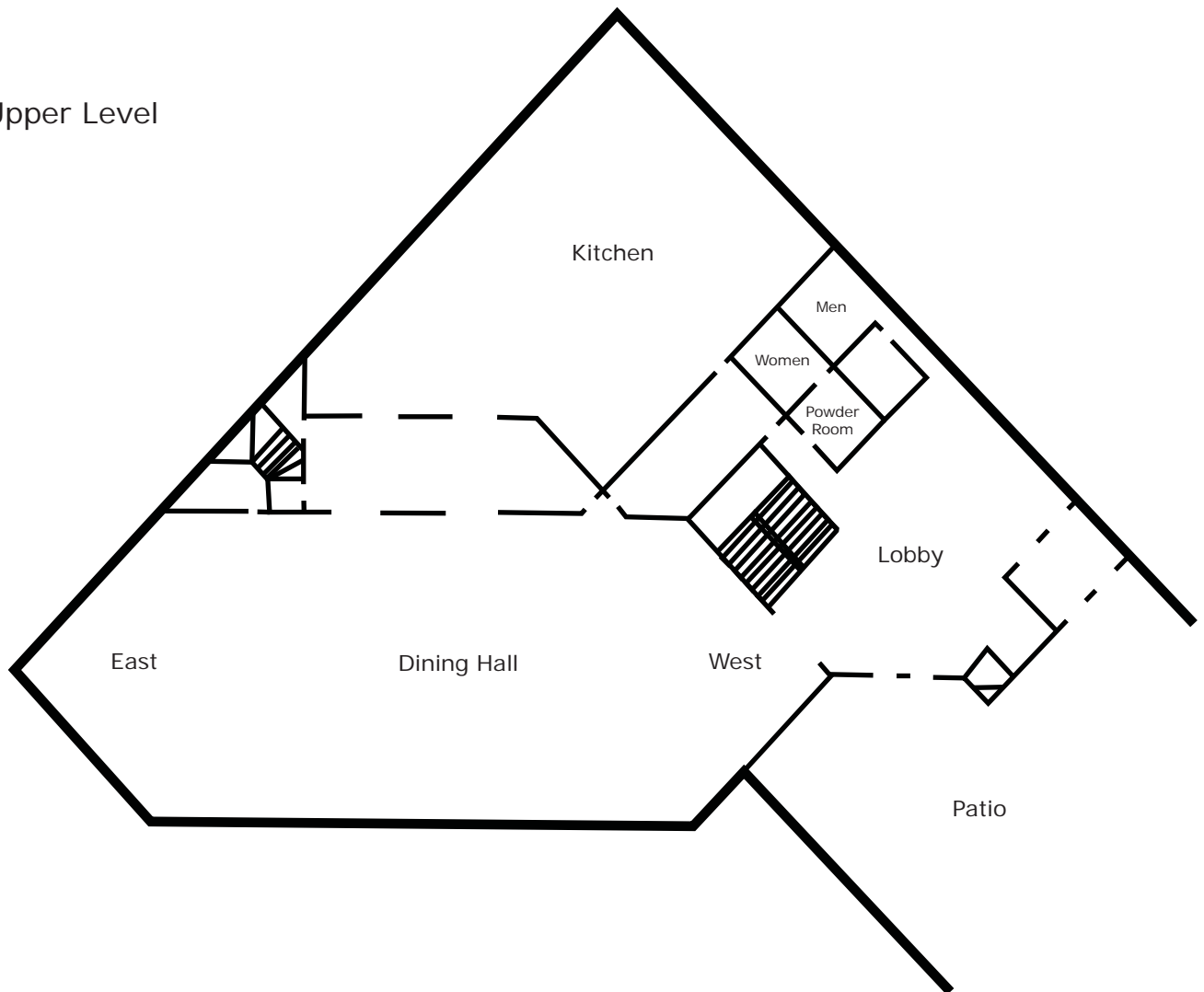
## Alphabetical Listing

- O. Archery Range
- D. Area A Housing
- G. Area B Housing
- H. Assembly Hall
- L. Canoeing
- P. Council Ring
- Q. Horses
- F. Men's Staff Cottage
- J. Outdoor Chapel
- M. Outdoor Education
- I. Picnic and Volleyball Area
- N. Rifle Range
- E. Showerhouse
- A. Snack Bar
- K. Staff Cottage
- B. Swimming Pool
- C. Wiedemann Dining Area

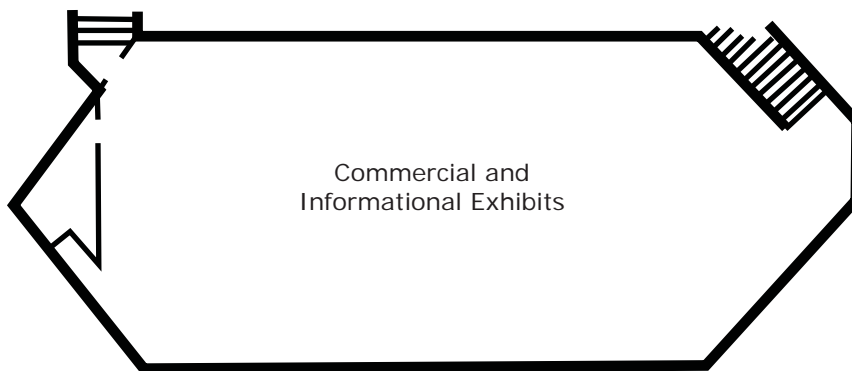


# WILLIAMS DINING HALL

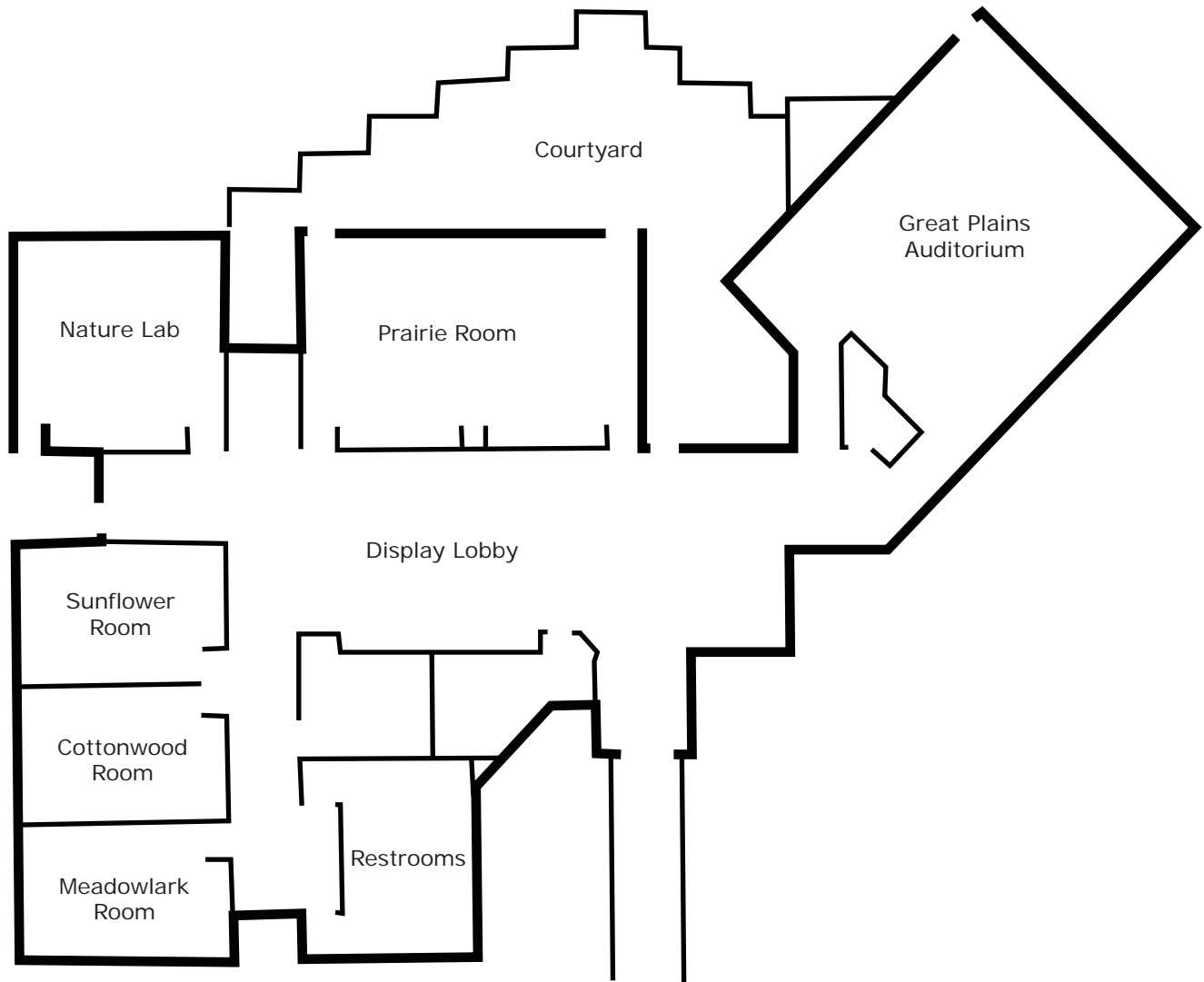
Upper Level



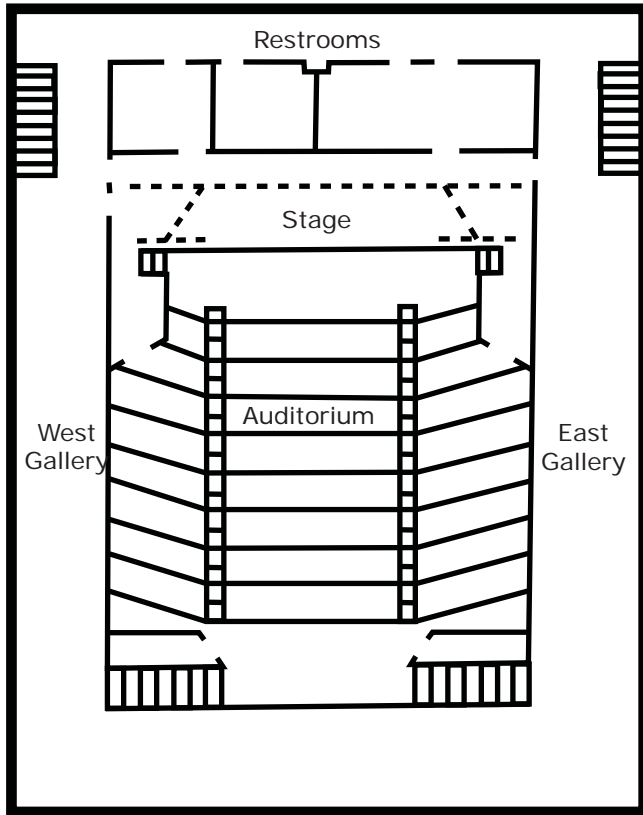
Lower Level



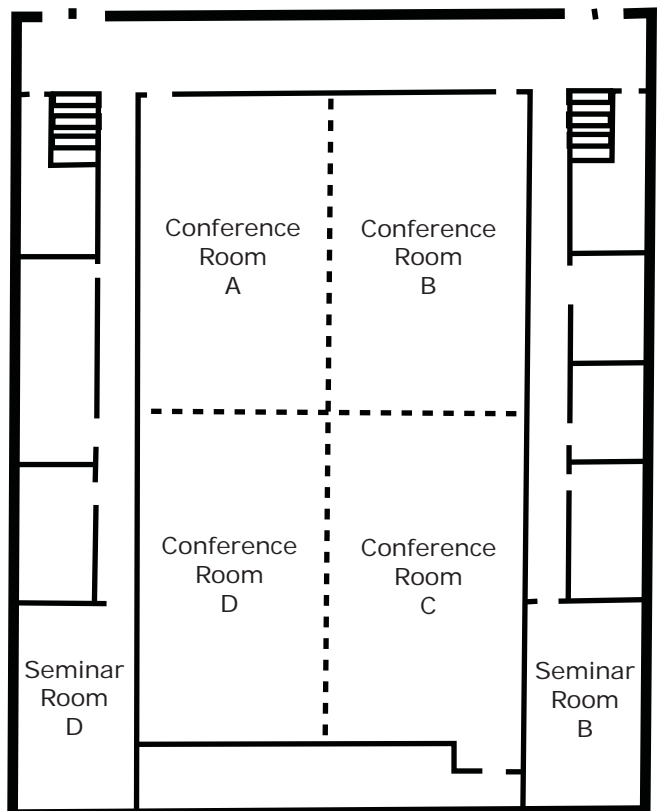
# FLINT HILLS EDUCATIONAL BUILDING



# HERITAGE HALL



Upper Level



Lower Level

**KATS KAMP 2009**  
**Celebrating 40 Years of Teaching Science**

**Program Sessions**

Friday 24 April 2009

KATS General Meeting  
7:30 PM Heritage Hall, Spencer Auditorium

Welcome to KATS Kamp  
President Dr. Emmett Wright

Introduction/ Nomination of Board Candidates  
Dr. Germaine Taggart

Keynote Speaker:  
Mr. Michael Weiss will discuss:

Underwater Photography

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After the presentation join  
Dr. DeWayne Backhus  
in the Williams DWL Lobby for  
*'The Sky Tonight'*

The rural midwest is relatively free of "light pollution," unlike large metropolitan area. Help preserve this clear-sky heritage.  
Naked-eye (and binocular-assisted) observations and identification of preeminent stars, constellations, and visible planets.

If possible, bring a flashlight and binoculars.  
Star charts and red cellophane will be provided.

**SATURDAY**

**8HCA            Project Atmosphere: Clouds & Hazardous Weather**  
**8:00 AM            Heritage Conference A**

**Presenter:**    *Perry Kennard*

To learn how clouds form and sometimes develop into severe thunderstorms. Make a cloud in a in a bottle! Project Atmosphere from the American Meteorological Society: Clouds and Hazardous Weather booklets will be given to participants.

STRAND	AUDIENCE	TYPE	SIGN-UP	REPEAT	COST
Earth Science	Middle/ Jr. High	Hands-On Work-shop	No	No	No

**8HCB            Basic Robotics**  
**8:00 AM            Heritage Conference B**

**Presenter:**    *Beth Fritts*

Participants will become comfortable with basic programming and building of Lego NXT robots. Starting a robotics club at your school or wanting to use more technology in your classroom? You'll learn basic programming and building along with getting the benefit from our experiences.

STRAND	AUDIENCE	TYPE	SIGN-UP	REPEAT	COST
STS (Sci. Tech. Society), Other/ Not In A Strand	Intermediate Elementary, Middle / Jr High	Hands-On Work-shop	No	9HCB	No

**8HCC            Are you needing a demonstration to get students' attention?**  
**8:00 AM            Heritage Conference C**

**Presenter:**    *Steve Haffener*

Promote student thinking and inquiry. A number of demonstrations will be presented that may be used to increase scientific inquiry. Some are for younger students, others for older, but all make you think ,and help teach important scientific concepts. Handouts provided.

STRAND	AUDIENCE	TYPE	SIGN-UP	REPEAT	COST
Physics / Physical Science, Earth Science	General Audience	Demonstration	No	8:3HCC	No

**8HCD            Sun, Moon, and Stars**  
**8:00 AM            Heritage Conference D**

**Presenter:**    *Mary Robillard*

Experience an activity from the a new FOSS Kit. Participants will complete an activity from the new Sun, Moon and Stars FOSS kit. Activities are designed to provide concrete astronomy experiences for 3rd and 4th graders. Prizes!

STRAND	AUDIENCE	TYPE	SIGN-UP	REPEAT	COST
Earth Science	Intermediate Elementary	Hands-On Work-shop	No	9:3HCD	No

**8HSB            Getting Dirty on Mars**  
**8:00 AM            Heritage Seminar B**

**Presenter:**    *Mike McGlone*

Learn basic soil science while investigating the red planet. The Mars Phoenix lands us digging through the soil of the Red Planet and collecting samples. In this activity, participants will work in cooperative groups to collect soil samples from the fields, just as NASA's robotic Phoenix Mars Mission collects samples on the Red Planet.

STRAND	AUDIENCE	TYPE	SIGN-UP	REPEAT	COST
Earth Science	Intermediate Elementary, Middle/Jr. High	Hands-On Workshop	No	No	No

**8HSD            A National Epidemic**  
**8:00 AM            Heritage Seminar D**

**Presenter:**    *Carrie Newdigger*

Learn about ways to incorporate public health into the curriculum. This lesson is for a general biology or anatomy and physiology class. The lesson emphasizes the importance of glucose homeostasis in the body, and the effects of type 1 and 2 diabetes on the glucose homeostasis by using a classroom enactment of glucose regulation in the body.

STRAND	AUDIENCE	TYPE	SIGN-UP	REPEAT	COST
Health / Wellness, Biology	Middle/Jr. High, Senior High, College	Short course	No	No	No

**8FHM            Gizmos- The use of excellent computer simulations**  
**8:00 AM            Flint Hills - Meadowlark**

**Presenter:**    *Thomas Sherow*

To introduce participants to an unique website. Participants will be introduced to a user-fee website that demonstrate complex scientific and mathematical concepts

STRAND	AUDIENCE	TYPE	SIGN-UP	REPEAT	COST
All Areas	Middle/Jr High, Senior High, College	Demonstration	No	No	No

**8FHC            Electronic Science Notebooks**  
**8:00 AM            Flint Hills - Cottonwood**

**Presenter:**    *Penny Blue*

Make better use of technology by implementing e-notebooks. Ways to use Microsoft Office OneNote to design and maintain paperless student science notebooks will be presented and discussed. Bring your laptop (w/ OneNote) and learn how it works.

STRAND	AUDIENCE	TYPE	SIGN-UP	REPEAT	COST
All Areas	Middle/Jr. High, Senior High, College, General Audience	Hands-On Workshop	No	9:30-11:00 AM	No

**8FHS CSI for Elementary Students**  
**8:00 AM Flint Hills - Sunflower**

**Presenter:** *Shirley Rose*

CSI for Elementary Students.

STRAND	AUDIENCE	TYPE	SIGN-UP	REPEAT	COST
General	General	Demonstration	No	No	No

**8FHPR Whiz Band Demonstrations: Back by Popular Demand**  
**10:00 AM Flint Hills - Prairie Room**

**Presenter:** *Patrick Wenzl*

This will be a hands-on session engaging participants in a wide variety of life, earth and physical science demonstrations and discrepant events. Emphasis will be on the “Wow” factor as well as the “Wow! How did that happen? Can we do it again?” Fill you bag with practical, exciting demonstrations and discrepant events that are guaranteed to get you students’ attention on Monday morning! Limited complimentary resource materials will be provided ... plus door prizes and giveaways!

STRAND	AUDIENCE	TYPE	SIGN-UP	REPEAT	COST
All Areas	Middle/Jr. High	Hands-On Workshop	No	10FHPR	No

**9HCA What’s up with GLOBE?**  
**9:00 AM Heritage Conference A**

**Presenter:** *Paul Adams*

Provide teachers an overview of current GLOBE events. Globe is an international program that provides a venue for classrooms to connect with other classrooms worldwide. If your are a GLOBE teacher, or interested in finding out more, join this session to connect with others.

STRAND	AUDIENCE	TYPE	SIGN-UP	REPEAT	COST
Environmental/Nature Studies	General Audience	Contributed Paper	No	No	No

**9HCB Basic Robotics**  
**9:00 AM Heritage Conference B**

**Presenter:** *Beth Fritts*

Participants will become comfortable with basic programming and building of Lego NXT robots. Starting a robotics club at your school or wanting to use more technology in your classroom? You’ll learn basic programming and building along with getting the benefit from our experiences.

STRAND	AUDIENCE	TYPE	SIGN-UP	REPEAT	COST
STS (Sci. Tech. Society), Other/Not In A Strand	Intermediate Elementary, Middle / Jr High	Hands-On Workshop	No	8HCB	No

**9HCC Real World Science Learning via Kansas Geological Survey Resources**  
**9:00 AM Heritage Conference C**

**Presenter:** *Carol Williamson*

Bring 21st century science learning home to your own county through Kansas Geological Survey resources. Handouts include classroom-ready activities that emphasize the application of science concepts and data analysis. Door prizes!

STRAND	AUDIENCE	TYPE	SIGN-UP	REPEAT	COST
Biology, Earth Science, Environmental/Nature Studies	Intermediate Elementary, Middle/Jr. High, Senior High	Hands-On Workshop	No	No	No

**9HCD Hydrogen Car**  
**9:00 AM Heritage Conference D**

**Presenter:** *Carol Bonham*

Explore ways to use a hydrogen fuel car kit. The chemical energy of hydrogen produced by the electrolysis of water using either chemical or solar energy is used to power a small working model car. Participants will be brainstorming applications for labs.

STRAND	AUDIENCE	TYPE	SIGN-UP	REPEAT	COST
Physics/Physical Science, Chemistry, STS (Sci. Tech Society)	College/University	Hands-On Workshop	No	No	No

**9HSB Integrating Math and Science for Elementary Students**  
**9:00 AM Heritage Seminar B**

**Presenter:** *Mike McGlone*

NASA has several resources for elementary teachers that integrates math and science. Come and have some fun!

STRAND	AUDIENCE	TYPE	SIGN-UP	REPEAT	COST
Physics/physical science, earth science	primary/ elementary, intermediate elementary	Hands-On Workshop	No	10:3HSB	No

**9HSD NASA's Dawn Spacecraft's Astronomical Instrumentation**  
**9:00 AM Heritage Seminar D**

**Presenter:** *Donna Bogner*

Learn about Dawn's cutting edge instrumentation through PowerPoint presentations. In February, NASA's Dawn spacecraft flew by Mars on its five year journey to the asteroid belt. The Dawn EPO team at McREL has revised the instrumentation fact and image sheets based on your input at last year's KATS Kamp into three PowerPoint presentations designed for classroom. They highlight how NASA's Dawn spacecraft's cutting-edge instruments will collect and interpret data from these instruments.

STRAND	AUDIENCE	TYPE	SIGN-UP	REPEAT	COST
Physics / Physical Science, Earth Science, STS (Sci. Tech. Society)	Middle / Jr High, Senior High, College / University, General Audience	Contributed Paper	No	No	No

**9FHM KATS Mentoring and Effective Science Teaching**  
**9:00 AM Flint Hills - Meadowlark**

**Presenter:** *Germaine Taggart*

Share mentoring ideas; gain mentoring pairs. Current and aspiring mentors and mentees will learn what the KATS/Kauffman partnership has to offer and discuss the direction for the future of the program.

STRAND	AUDIENCE	TYPE	SIGN-UP	REPEAT	COST
General	General	Demonstration	No	No	No

**9FHC                    Keep The Living in the Classroom!!**  
**9:00 AM                Flint Hills - Cottonwood**

**Presenter:            Lu Bitter**

Meeting Science standards in Life sciences. Teach students about respect and care of living organisms. You will get a living thing and learn how animals and plants are used in a classroom for all types of reading, writing, math and social behavioral education.

STRAND	AUDIENCE	TYPE	SIGN-UP	REPEAT	COST
Biology	Primary/Elementary, Intermediate Elementary, Middle/Jr. High, Senior High, General Audience	Hands-On Workshop	No	No	No

**9FHS                    Little Bluestem for Kansas State Grass**  
**9:00 AM                Flint Hills - Sunflower**

**Presenter:            Valerie Wright**

Encourage teachers to include native grasses/prairie ecosystem in curriculum. Includes: background/process of campaign to name Little Bluestem (*Sohizachyrium scoparium*) Kansas State Grass; features of this grass, ecological and economic benefits, learning activities/materials related to "little blue", and prairie ecosystems.

STRAND	AUDIENCE	TYPE	SIGN-UP	REPEAT	COST
Biology/Nature Studies	Intermediate Elementary/ Middle/Jr High	Hands-On Workshop	No	11FHS	No

**9FHPR                From Desktop to Laptop: Stepping Boldly into the digital Classroom**  
**9:00 AM                Flint Hills - Prairie Room**

**Presenter:            Patrick Wenzl**

Teachers are eager to apply technology to enhance instruction in the classroom. The goal of this session will be to demonstrate the wide range of technology tools available to teachers, and more importantly digital learning is a great motivator for students. From engaging interactive software to online textbooks resources, Holt McDougal will help you successfully step into the digital classroom! Limited complimentary resource materials will be provided... plus door prizes and giveaways.

STRAND	AUDIENCE	TYPE	SIGN-UP	REPEAT	COST
Computer/ multimedia	General Audience	Hands-On Workshop	No	11FHPR	No

**10HCA                Teaching Scientific Argumentation to enhance science literacy**  
**10:00 AM                Heritage Conference A**

**Presenter:            Jim Ellis**

To learn how to use a graphic organizer and discussion strategies to promote student engagement in developing and analyzing scientific argumentation. The presentation will share a graphic organizer and teaching strategies for enhancing student knowledge and ability related to scientific argumentation that has been developed and pilot tested by a collaborative group of middle-level science teachers and University educators during a three-year NSF-supported research project.

STRAND	AUDIENCE	TYPE	SIGN-UP	REPEAT	COST
Other/Not In A Strand	General Audience	Methods	No	10:3HCC	No

**10HCB Kansas STARBASE Science**  
**10:00 AM Heritage Conference B**

**Presenter:** *Mike Coulter*

This overview will provide information about STARBASE, a free, hands-on science and technology program for Kansas 4th-6th graders, and demonstrate models adaptable for teaching science principles in 3rd-8th grade classrooms.

STRAND	AUDIENCE	TYPE	SIGN-UP	REPEAT	COST
Physics / Physical Science	Intermediate Elementary, Middle / Jr High	Hands-On Workshop	No	11HCB	No

**10HCC "Huh? Wait a Minute!" Demos and other things that make you think**  
**10:00 AM Heritage Conference C**

**Presenter:** *Rhonda Reist*

A collection of demos or discrepant events that may make you doubt your expertise.

STRAND	AUDIENCE	TYPE	SIGN-UP	REPEAT	COST
Physics/Chemistry	Middle/Jr High, Senior High/University	Demonstration	No	No	No

**10HCD We Go To The Moon**  
**10:00 AM Heritage Conference D**

**Presenter:** *John Ross*

Learn about historical moon missions and professional development opportunities. Celebrate the 40th anniversary of the Moon Landing! Presenters will discuss the history and science of the Apollo missions and a summer course to learn more.

STRAND	AUDIENCE	TYPE	SIGN-UP	REPEAT	COST
STS (Sci. Tech. Society)	General Audience	Hands-On Workshop	No	No	No

**10HSB What is a Planet?**  
**10:00 AM Heritage Seminar B**

**Presenter:** *Mike McGlone*

What is a Planet? The ongoing debate about Pluto and other bodies in the solar system. In this session, NASA resources and activities to support the debate will be experienced and shared with the participants

STRAND	AUDIENCE	TYPE	SIGN-UP	REPEAT	COST
Earth Science	Elementary, Middle/ Jr High, Senior High	Hands-On Workshop	No	No	No

**10HSD Comet On A Stick**  
**10:00 AM Heritage Seminar D**

**Presenter:** *Whitney Cobb*

Learn and model comet science. Develop a model of a comet by implementing the same thought processes a mission science and engineering team might use. Test your theories about comets and then evaluate the strengths and weaknesses of your comet model.

STRAND	AUDIENCE	TYPE	SIGN-UP	REPEAT	COST
Physics / Physical Science, Earth Science	Intermediate Elementary, Middle / Jr High	Hands-On Workshop	No	No	No

**10FHM            The Wendell G. Mohling Foundation Teacher Award**  
**10:00 AM            Flint Hills - Meadowlark**

**Presenter:**    *Carol Mohling*

How can I win the Mohling Foundation award? How do I get it? Why should I apply? Previous winner will share their experiences and answer those questions.

STRAND	AUDIENCE	TYPE	SIGN-UP	REPEAT	COST
Awards	General Audience	Demonstration	No	No	No

**10FHC            Projects - They Meet everyone's needs! High or Low or Inbetween**  
**10:00 AM            Flint Hills - Cottonwood**

**Presenter:**    *Lu Bitter*

Use projects as vehicle of learning all topics, and all grade levels. This presentation will explain how to use projects in all types of classes and subjects. I use projects in all of my classes. I have also taught a "Projects" class.

STRAND	AUDIENCE	TYPE	SIGN-UP	REPEAT	COST
Health, Physics/Physical Science, Biology, Earth Science, Environmental	Intermediate Elementary, Middle/Jr. High, Senior High, General Audience	Demonstration	No	8:3HCB	No

**10FHS            Evolution of Technology - Exploring Technology, Science & Society**  
**10:00 AM            Flint Hills - Sunflower**

**Presenter:**    *Penny Blue*

Learn how to use the Voyages Through Time - Evolution of Technology lessons in your science classes. An overview of lessons focusing on how technologies meet human needs, how technology has changed over time, and the impact technology has on our economy and society will be presented. Ideas for implementation of lessons, obtaining materials, etc, will be discussed.

STRAND	AUDIENCE	TYPE	SIGN-UP	REPEAT	COST
Physics/ Physical Science, Biology, Earth Science, Sci. Tech. Society	Middle/Jr. High, Senior High, General Audience	Hands-On Workshop	No	No	No

**10FHPR            Whiz Band Demonstrations: Back by Popular Demand**  
**10:00 AM            Flint Hills - Prairie Room**

**Presenter:**    *Patrick Wenzl*

This will be a hands-on session engaging participants in a wide variety of life, earth and physical science demonstrations and discrepant events. Emphasis will be on the "Wow" factor as well as the "Wow! How did that happen? Can we do it again?" Fill your bag with practical, exciting demonstrations and discrepant events that are guaranteed to get your students' attention on Monday morning! Limited complimentary resource materials will be provided ... plus door prizes and giveaways!

STRAND	AUDIENCE	TYPE	SIGN-UP	REPEAT	COST
All Areas	Middle/Jr. High	Hands-On Workshop	No	8FHPR	No

**10-12FHOS Teaching with Edible, Medicinal and Useful Plants**  
**10:00 AM Flint Hills - Outside Shelter**

**Presenter:** *Mary Jane Wright*

Learn to identify wild plants for use in instruction. Join us on a field walk to identify medicinal, poisonous, useful and edible plants in various stages and learn how to incorporate the information into the science, art and social studies classroom. The Saturday walk will focus on the stream and wooded areas, while on Sunday prairie plants will be stressed. Handout provided - **Field Trip 2hrs.**

STRAND	AUDIENCE	TYPE	SIGN-UP	REPEAT	COST
Biology, Environmental/ Natural Studies, Health/ Wellness	General Audience	Field Trip: Meet at Flint Hills outdoor shelter to begin both field walks.	No	No	No

**11HCA Energizing Middle School Science with Problem-Based Learning**  
**11:00 AM Heritage Conference A**

**Presenter:** *Paul Adams*

Participants from the FHSU Energizing Middle School Science with Wind Energy workshop will have a share-a thon session of materials and ideas that have been tested in the classroom.

STRAND	AUDIENCE	TYPE	SIGN-UP	REPEAT	COST
STS ( Sci. Tech. Society)	Middle/J. High	Poster Presentation	No	No	No

**11HCB Kansas STARBASE Science**  
**11:00 AM Heritage Conference B**

**Presenter:** *Mike Coulter*

Participants will gain awareness of the STARBASE program and methodology used at STARBASE to teach hands-on science. This overview will provide information about STARBASE, a free, hands-on science and technology program for Kansas 4th-6th graders, and demonstrate models adaptable for teaching science principles in 3rd-8th grade classrooms.

STRAND	AUDIENCE	TYPE	SIGN-UP	REPEAT	COST
Physics / Physical Science	Intermediate Elementary, Middle / Jr High	Hands-On Workshop	No	10HCB	No

**11HCC Delightful Demos in the Dark**  
**11:00 AM Heritage Conference C**

**Presenter:** *Rhonda Reist*

See new and exciting demos of light and color! Come enjoy an hour of demos in the dark! We'll look at additive color, chemoluminescent reactions, phosphorescent materials, and a super cool new liquid nitrogen demo that glows!

STRAND	AUDIENCE	TYPE	SIGN-UP	REPEAT	COST
Physics/Chemistry	General Audience	Demonstration	No	No	No

**11HCD Evolving Dinosaurs in the Classroom**  
**11:00 AM Heritage Conference D**

**Presenter: Keith Miller**

To see how the fossil record can be used to test evolutionary hypotheses. Participants will practice using a hands-on project to illustrate how hypotheses in evolutionary science can be made and tested using fossils. Dinosaur skeletons will be used to show common descent.

STRAND	AUDIENCE	TYPE	SIGN-UP	REPEAT	COST
Biology	Senior High, College / University	Hands-On Workshop	No	No	No

**11HSB Rockets - A New Generation**  
**11:00 AM Heritage Seminar B**

**Presenter: Mike McGlone**

Learn how to turn your students into junior rocket scientists and understand Newton's Laws of motion. NASA's new Rocket Educator Guide gives an updated resource on NASA's new Constellation program and provides new ways to teach Newton's Laws of Motion and other physics principles.

STRAND	AUDIENCE	TYPE	SIGN-UP	REPEAT	COST
Physics/ Physical Science	Middle/Jr. High, Senior High	Hands-On Workshop	No	No	No

**11HSD Astrobiology: It's More Than Little Green Men**  
**11:00 AM Heritage Seminar D**

**Presenter: Julie Tipton**

Finding out more about astrobiology! This session will present some of the great information from the SETI institute about the field of astrobiology. Information about ASSET training and the Voyages Through Time curriculum will be shared as well as Winogradsky columns and some great ideas to take back and share with your classes.

STRAND	AUDIENCE	TYPE	SIGN-UP	REPEAT	COST
Biology	General	Hands-On Workshop	No	No	No

**11FHC Cosmic Rays in the Classroom**  
**11:00 AM Flint Hills - Cottonwood**

**Presenter: Gail Anne Aurand**

Introduce cosmic ray detector and e-lab to teachers. Bring cosmic rays into your physics class. Quarknet introduces the cosmic ray e-lab and demonstrates how it can be used to teach Kansas state standards in high school physics classes.

STRAND	AUDIENCE	TYPE	SIGN-UP	REPEAT	COST
	Senior High, College / University	Physics/ physical Science	No	No	No

**11FHS Little Bluestem for Kansas State Grass**  
**11:00 AM Flint Hills - Sunflower**

**Presenter: Valerie Wright**

Encourage teachers to include native grasses/prairie ecosystem in curriculum. Includes: background/process of campaign to name Little Bluestem (*sohizachyrium scoparium*) Kansas State Grass; features of this grass, ecological and economic benefits, learning activities/materials related to "little blue", and prairie ecosystems.

STRAND	AUDIENCE	TYPE	SIGN-UP	REPEAT	COST
Biology/Nature Studies	Intermediate Elementary/Middle/Jr High	Hands-On Workshop	No	9FHS	No

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12:00 Noon

***Lunch***

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1:00 PM

Heritage Hall  
 Spencer Auditorium

*Welcome by*

Sharon McDonald, President-Elect

*Recognition of Regional Outstanding Science Teacher Awardees,*

Dr. Emmett Wright, President

*Presentation of KATS Outstanding Science Teacher Award,*

Dr. Germaine Taggart, Past-President

*Presentation of the Wendell G. Mohling Scholarship,*

Kay Neil

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*Introduction of Keynote Speaker*

Mr. Michael Weiss

Last Flight to the Hubble Telescope

Mr. Weiss is currently the Deputy Program Manager of the Hubble Space Telescope Program at NASA's Goddard Space Flight Center. He received his B.S. and M.S. in Aerospace Engineering from the University of Maryland at College Park in 1978 and 1983, respectively. From 1978 to 1990, he led the systems engineering activities for numerous earth and space science spacecraft including SMM, UARS, GRO and EUVE. He also managed the systems engineering activities for the first Shuttle-based satellite repair mission, the Solar Maximum Repair Mission, which flew in 1984. He directed the systems development of the first two Hubble servicing missions that flew in 1993 and 1997, respectively. From 1997 to 2000, he served as the Deputy Division Chief of Goddard's Systems Engineering Division, which served as a home-base for all earth and space science mission systems engineers. In 1998 he returned to Hubble as the Deputy Program Manager to lead the technical development of all program activities, including servicing, operations and advanced studies. He has accumulated over 200 hours in NASA's Neutral Buoyancy Laboratory training Shuttle flight crews on servicing techniques and procedures and is an avid open water diver and underwater photographer. Under his technical direction, Hubble continues to function as the world's premier observational facility.



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2:30 PM

***Regional Meetings***

Region 1 Conference A

Region 2 Conference B

Region 3 Conference C

Region 4 Conference D

Region 5 Seminar B

Region 6 Seminar D

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**3HCA**

**Activities to Improve Observation Skills**

**3:00 PM**

**Heritage Conference A**

**Presenter: *Brian Cole***

Learn Observation Activities. Several activities involving observation skills and scientific methods will be presented. Activities can be used or adapted to various levels.

STRAND	AUDIENCE	TYPE	SIGN-UP	REPEAT	COST
Other/Not In A Strand	General Audience	Hands-On Workshop	No	8:3HCA	No

**3HCB Skimming into Inquiry**  
**3:00 PM Heritage Conference B**

**Presenter:** *Georgia Smith*

Take home a quick easy inquiry activity to use on Monday. Those attending will build a skimmer, use a turkey baster and balloon to propel the skimmer. The end result will be to test the skimmer design and hopefully win the Skim Off

STRAND	AUDIENCE	TYPE	SIGN-UP	REPEAT	COST
Physics / Physical Science	Primary / Elementary, Intermediate Elementary, Middle / Jr High	Make It Take It	No	No	No

**3HCC Gimmicks, Gizmos & Discrepant Events**  
**3:00 PM Heritage Conference C**

**Presenter:** *Doc Gizmo*

Inexpensive Science Demos & Activities. We bring a variety of inexpensive, desk-top activities you and your students can do to make Science Come Alive. Chemistry & Physics emphasis.

STRAND	AUDIENCE	TYPE	SIGN-UP	REPEAT	COST
Physics / Physical Science, Chemistry	General Audience	Demonstration	No	9:3HCC	No

**3HCD Get PUBLISHED! How to write, submit, and share your science education ideas.**

**3:00 PM Heritage Conference D**

**Presenter:** *Daniel Bergman*

Participants will learn what practical steps they can take to write and publish articles in science education publications. Do you have a terrific strategy or lesson that will amaze other science educators? Come and learn practical tips for writing, submitting, and successfully publishing your ideas.

STRAND	AUDIENCE	TYPE	SIGN-UP	REPEAT	COST
Other/Not In A Strand	General Audience	Demonstration	No	No	No

**3HSB Water Awareness and Monitoring for Elementary Students**  
**3:00 PM Heritage Seminar B**

**Presenter:** *Amanda Hopkins*

Lessons around the World Water Monitoring Day engage students in an international project. FHSU preservice elementary students educated local elementary students on water quality, testing water samples, and reporting data on-line in the World Water Monitoring Day database. Activities and lesson plans will be shared which link science to real-world applications.

STRAND	AUDIENCE	TYPE	SIGN-UP	REPEAT	COST
Environmental / Nature Studies	Primary / Elementary	Demonstration	No	No	No

**3-5HSD Introducing the Kena: A Digital Microscope for You**  
**3:00 PM Heritage Seminar D**

**Presenter: Harry McDonald**

Ken-A-Vision will provide participants with a free Kena and instruction on its use. Participants will receive instructions on how to use a digital microscope, training on its use to promote inquiry in the classroom, a free digital microscope, and software. The microscope is a \$275 value. Limited to the first 40 participants. Limit one per school.

STRAND	AUDIENCE	TYPE	SIGN-UP	REPEAT	COST
STS (Sci. Tech. Society)	Primary/Elementary	Hands-On Workshop	Yes	8:3-10:3HSD	No

4:00 PM

**New Teacher Reception**  
 Great Plains Auditorium

**4HCA Seven Habits for an Effective Teacher or Wanderings of a Science Teacher**  
**4:00 PM Heritage Conference A**

**Presenter: Paul Adams**

Reflection on the process of teaching. A light presentation on my thoughts about science teaching.

STRAND	AUDIENCE	TYPE	SIGN-UP	REPEAT	COST
Other	General Audience	Demonstration	No	No	No

**4HCB Shazam! Using the Unexpected in the Classroom**  
**4:00 PM Heritage Conference B**

**Presenter: Amy Hageman**

Incorporate Discrepant Events into Curriculum. We will model scientific discrepant events for K-12 classrooms. Participation will be encouraged to engage in hands-on learning experiences.

STRAND	AUDIENCE	TYPE	SIGN-UP	REPEAT	COST
Physics / Physical Science, Biology, Earth Science, Environmental / Nature Studies, Chemistry	Intermediate Elementary, Middle / Jr High, Senior High, College / University, General Audience	Hands-On Workshop	No	10:3HCB	No

**4HCC Shallow Water Ocean Waves**  
**4:00 PM Heritage Conference C**

**Presenter: Dwayne Beckford**

To take home a hands on activity to help their students understand shallow water ocean waves. Each participant will construct a wave tub from provided materials. Participants will use their wave tube to gain a better understanding of shallow water wave characteristics and water motions associated with shallow water waves.

STRAND	AUDIENCE	TYPE	SIGN-UP	REPEAT	COST
Earth Science	Middle / Jr High, Senior High	Hands-On Workshop	No	9:3HCA	No

**4HCD                   Phun Physics Projects**  
**4:00 PM               Heritage Conference D**

**Presenter:       *Connie Schaefer***

Learn exciting methods of teaching density, buoyancy, and simple machines. Teach density and buoyancy by designing life size cardboard row boats that can be tested in the city pool. Use the simple machines to create a Rube Goldberg project.

STRAND	AUDIENCE	TYPE	SIGN-UP	REPEAT	COST
Physics/physical science, chemistry	Jr high/High School, general audience	Demonstration	No	10: 3HCD	No

**4HSB                   Water Awareness and Monitoring for Grades 3-5 Elementary Students**  
**4:00 PM               Heritage Seminar B**

**Presenter:       *Carol Borchers***

Lessons around the World Water Monitoring Day engage students in an international project. FHSU preservice elementary students educated local elementary students on water quality, testing water samples, and reporting data on-line in the World Water Monitoring Day database. Activities and lesson plans will be shared which link science to real-world applications.

STRAND	AUDIENCE	TYPE	SIGN-UP	REPEAT	COST
Environmental / Nature Studies	Primary / Elementary	Demonstration	No	No	No

**5HCB                   JUMP into Space**  
**5:00 PM               Heritage Conference B**

**Presenter:       *Amanda Waugh***

To promote hands-on activities for elementary students. A brief outline of a NASA workshop, the building of Saturn, and learning and building rockets. Come join the preservice teachers in some space FUN!

STRAND	AUDIENCE	TYPE	SIGN-UP	REPEAT	COST
Earth Science	Primary / Elementary	Demonstration	No	No	No

**5HCC                   Ocean Tides**  
**5:00 PM               Heritage Conference C**

**Presenter:       *Dwayne Beckford***

To take home a hands on activity to help their students understand ocean tides. Each participant will perform a tide gauging activity to help better understand ocean tides. Each participant will receive photo copiable materials to take home with them.

STRAND	AUDIENCE	TYPE	SIGN-UP	REPEAT	COST
Earth Science	Middle / Jr High, Senior High	Hands-On Workshop	No	10: 3HCA	No

**5HCD Two GREEN Thumps Up! Teaching Environmental Issues with Movies**  
**5:00 PM Heritage Conference D**

**Presenter: Daniel Bergman**

Participants will learn how to effectively use movie and media clips to enhance and supplement their instruction of science concepts and issues related to the environment, ecology, biology, and more. It's SHOWTIME! Learn how to make environmental issues come alive for you and your students by using clips from "The Day after Tomorrow," "Fern Gully," "Medicine Man," and other movies.

STRAND	AUDIENCE	TYPE	SIGN-UP	REPEAT	COST
Biology, Earth Science, Environmental / Nature Studies, STS (Sci. Tech. Society), Computer / Multimedia	Intermediate Elementary, Middle / Jr High, Senior High, College / University	Demonstration	No	No	No

**5HSB Livescribe and Science Presentations**  
**5:00 PM Heritage Seminar B**

**Presenter: Janice Crowley**

The Smart pen by Livescribe is an asset to any teacher who has a computer and internet access. The Smart pen records your audio and written words in real time. Come see its many uses.

STRAND	AUDIENCE	TYPE	SIGN-UP	REPEAT	COST
All Areas	Middle/Jr High, Senior High, College. General Audience	Demonstration	No	No	No

**5HSD Kansas Science Discussion**  
**5:00 PM Heritage Seminar D**

**Presenter: Harry McDonald**

Learn / discuss the latest science happenings. Meet with fellow science educators to discuss any current happening/issue involving science education in Kansas.

STRAND	AUDIENCE	TYPE	SIGN-UP	REPEAT	COST
Science Education	General Audience	Discussion	No	No	No

6:00 - 7:00 PM

***Dinner***

7:30 PM

Heritage Hall, Spencer Auditorium

***Heritage Hall Spencer Auditorium - An Evening of Fun and Fellowship***  
***~ Special Presentations***  
***~Recognizing Past Presidents***  
***~Steve Jacobs : Grand Illuminator - Challenges and Prizes!***  
*Sponsored by Sargent Welch*  
***~40th Anniversary Celebration, Social Hour***

## SUNDAY

7:00 AM

### *Laurie Cleavinger: Morning Vespers Vesper Lookout*

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#### **8:3HCA Activities to Improve Observation Skills**

**8:30 AM Heritage Conference A**

**Presenter: *Brian Cole***

Learn Observation Activities. Several activities involving observation skills and scientific methods will be presented. Activities can be used or adapted to various levels.

STRAND	AUDIENCE	TYPE	SIGN-UP	REPEAT	COST
Other/Not In A Strand	General Audience	Hands-On Workshop	No	3HCA	No

#### **8:3HCB Projects - They Meet everyone's needs! High or Low or Inbetween**

**8:30 AM Heritage Conference B**

**Presenter: *Lu Bitter***

Use projects as vehicle of learning all topics, and all grade levels. This presentation will explain how to use projects in all types of classes and subjects. I use projects in all of my classes. I have also taught a "Projects" class.

STRAND	AUDIENCE	TYPE	SIGN-UP	REPEAT	COST
Health, Physics/Physical Science, Biology, Earth Science, Environmental	Intermediate Elementary, Middle/Jr. High, Senior High, General Audience	Demonstration	No	10FHC	No

#### **8:3HCC Are you needing a demonstration to get students' attention?**

**8:30 AM Heritage Conference C**

**Presenter: *Steve Haffener***

Promote student thinking and inquiry. A number of demonstrations will be presented that may be used to increase scientific inquiry. Some are for younger students, others for older, but all make you think and help teach important scientific concepts. Handouts provided.

STRAND	AUDIENCE	TYPE	SIGN-UP	REPEAT	COST
Physics / Physical Science, Earth Science	General Audience	Demonstration	No	8HCC	No

#### **8:3HCD Fossils in a Bucket**

**8:30 AM Heritage Conference D**

**Presenter: *John Eppich***

Learn about fossil collecting. This is a program that brings fossils to the classroom. You will get to sift for sharks teeth as well as other fossils. Door prizes for everyone!

STRAND	AUDIENCE	TYPE	SIGN-UP	REPEAT	COST
Earth Science	General Audience	Hands-On Workshop	No	No	No

**8:3HSB Mars Bound**  
**8:30 AM Heritage Seminar B**

**Presenter:** *Mike McGlone*

How does NASA design a mission to Mars? Learn how to bring this process into your classroom and challenge the science and mathematics knowledge of you students.

STRAND	AUDIENCE	TYPE	SIGN-UP	REPEAT	COST
Other/Not In A Strand	Intermediate Elementary, Middle/Jr High	Hands-On Workshop	No	No	No

**8:3-10:3HSD Introducing the Kena: A Digital Microscope for You**  
**3:00 PM Heritage Seminar D**

**Presenter:** *Harry McDonald*

Ken-A-Vision will provide participants with a free Kena and instruction on its use. Participants will receive instructions on how to use a digital microscope, training on its use to promote inquiry in the classroom, a free digital microscope, and software. The microscope is a \$275 value. Limited to the first 40 participants. Limit one per school.

STRAND	AUDIENCE	TYPE	SIGN-UP	REPEAT	COST
STS (Sci. Tech. Society)	Primary/Elementary	Hands-On Workshop	Yes	3-5HSD	No

**9:3HCA Shallow Water Ocean Waves**  
**9:30 AM Heritage Conference A**

**Presenter:** *Dwayne Beckford*

To take home a hands on activity to help their students understand shallow water ocean waves. Each participant will construct a wave tub from provided materials. Participants will use their wave tube to gain a better understanding of shallow water wave characteristics and water motions associated with shallow water waves.

STRAND	AUDIENCE	TYPE	SIGN-UP	REPEAT	COST
Earth Science	Middle / Jr High, Senior High	Hands-On Workshop	No	4HCC	No

**9:3HCB Electronic Science Notebooks**  
**9:30 AM Heritage Conference B**

**Presenter:** *Penny Blue*

Make better use of technology by implementing e-notebooks. Ways to use Microsoft Office OneNote to design and maintain paperless student science notebooks will be presented and discussed. Bring your laptop (w/ OneNote) and learn how it works.

STRAND	AUDIENCE	TYPE	SIGN-UP	REPEAT	COST
All Areas	Middle/Jr. High, Senior High, College, General Audience	Hands-On Workshop	No	8FHC	No

**9:3HCC Gimmicks, Gizmos & Discrepant Events****9:30 AM Heritage Conference C****Presenter: Doc Gizmo**

Inexpensive Science Demos & Activities. We bring a variety of inexpensive, desk-top activities you and your students can do to make Science Come Alive. Chemistry & Physics emphasis.

STRAND	AUDIENCE	TYPE	SIGN-UP	REPEAT	COST
Physics / Physical Science, Chemistry	General Audience	Demonstration	No	3HCC	No

**9:3HCD Sun, Moon, and Stars****9:30 AM Heritage Conference D****Presenter: Mary Robillard**

Experience an activity from the a new FOSS Kit. Participants will complete an activity from the new Sun, Moon and Stars FOSS kit. Activities are designed to provide concrete astronomy experiences for 3rd and 4th graders. Prizes!

STRAND	AUDIENCE	TYPE	SIGN-UP	REPEAT	COST
Earth Science	Intermediate Elementary	Hands-On Workshop	No	8HCD	No

**9:3HSB Lunar and Meteorite Certification****9:30 AM Heritage Seminar B****Presenter: Mike McGlone**

Learn how to model the Earth-Moon system, investigate meteorites, and become certified to borrow Moon rocks and meteorites from NASA.

STRAND	AUDIENCE	TYPE	SIGN-UP	REPEAT	COST
Earth Science	Elementary, Middle/ Jr High, Senior High	Methods	No	No	No

**10:3HCA Ocean Tides****5:00 PM Heritage Conference A****Presenter: Dwayne Beckford**

To take home a hands on activity to help their students understand ocean tides. Each participant will perform a tide gauging activity to help better understand ocean tides. Each participant will receive photo copiable materials to take home with them.

STRAND	AUDIENCE	TYPE	SIGN-UP	REPEAT	COST
Earth Science	Middle / Jr High, Senior High	Hands-On Workshop	No	5HCC	No

**10:3HCB Shazam! Using the Unexpected in the Classroom****4:00 PM Heritage Conference B****Presenter: Amy Hageman**

Incorporate Discrepant Events into Curriculum. We will model scientific discrepant events for K-12 classrooms. Participation will be encouraged to engage in hands-on learning experiences.

STRAND	AUDIENCE	TYPE	SIGN-UP	REPEAT	COST
Physics / Physical Science, Biology, Earth Science, Environmental / Nature Studies, Chemistry	Intermediate Elementary, Middle / Jr High, Senior High, College / University, General Audience	Hands-On Workshop	No	4HCB	No

**10:3HCC Teaching Scientific Argumentation to enhance science literacy****10:30 AM Heritage Conference C****Presenter: Jim Ellis**

To learn how to use a graphic organizer and discussion strategies to promote student engagement in developing and analyzing scientific argumentation. The presentation will share a graphic organizer and teaching strategies for enhancing student knowledge and ability related to scientific argumentation that has been developed and pilot tested by a collaborative group of middle-level science teachers and University educator during a three-year NSF-supported research project.

STRAND	AUDIENCE	TYPE	SIGN-UP	REPEAT	COST
Other/Not In A Strand	General Audience	Methods	No	10HCA	No

**10:3HCD Phun Physics Projects****4:00 PM Heritage Conference D****Presenter: Connie Schaefer**

Learn exciting methods of teaching density, buoyancy, and simple machines. Teach density and buoyancy by designing life size cardboard row boats that can be tested in the city pool. Use the simple machines to create a Rube Goldberg project.

STRAND	AUDIENCE	TYPE	SIGN-UP	REPEAT	COST
Physics/physical science, chemistry	Jr high/High School, general audience	Demonstration	No	4HCD	No

**10:3HSB Integrating Math and Science for Elementary Students****10:30 AM Heritage Seminar B****Presenter: Mike McGlone**

NASA has several resources for elementary teachers that integrates math and science. Come and have some fun!

STRAND	AUDIENCE	TYPE	SIGN-UP	REPEAT	COST
Physics/physical science, earth science	primary/ elementary, intermediate elementary	Hands-On Workshop	No	9HSB	No

11:30 AM - 12:30 PM

**Lunch**

## Executive Officers



KATS President  
Dr. Emmett Wright



President-Elect  
Sharon McDonald



Vice President  
Dr. Kimberly Staples



Secretary  
Kathy Rome



Treasurer  
Vicki Anderson

## Regional Representatives

### Region

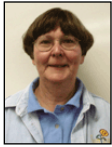
### Grade Level

#### *Elementary*

#### *Secondary*

#### *College*

1



Georgia Smith



Laurie Cleavinger



Dr. Jim Ellis

2



Kathy Huntzinger



Christine Herald



Dr. Jacqueline Spears

3



Karen Heins



Marilyn McComber



Dr. Matt Seimears

4



Dina Duggin



Shirley Rose



Daniel Bergman

5



Corinne Masters



David Wildeman



Dr. Paul Adams

6



Carol Hewitt

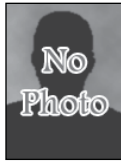


Lori Coles



Carol Bonham

## Liaisons



KSDE Liaison  
David Barnes



Informal Science Liaison  
Jared Bixby

## Committee Chairs & Appointees



Membership Chair  
Lori Coles



Past President  
Dr. Germaine Taggart



KACEE Representative  
Diane Maddox



KATS Kamp Registration Chair  
Mary Butel



KATS Newsletter Editor and Publisher  
Dr. Paul Adams



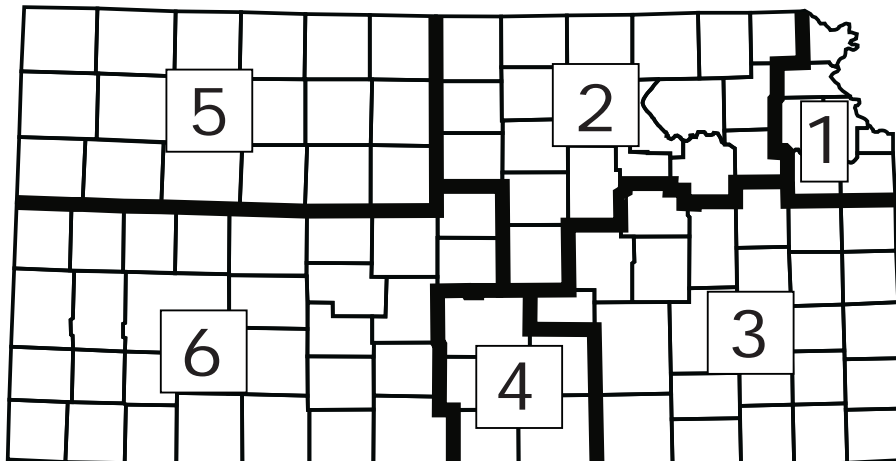
KATS Office Consultant  
Vicki Andersen



Webmaster  
Tim Anderson



NSTA District XI Director  
James Puckett



## EXECUTIVE COMMITTEE OFFICERS

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## COMMITTEE CHAIRS AND APPOINTEES

### *Membership Chair*

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Work: 620-873-2981  
Fax: 620-873-2201  
colesl@usd226.org

### *KATS Kamp Registration Chair*

Mary Butel  
1409 W 35th St N  
Wichita, KS 67204-3913  
Home: 316-838-4130  
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mary-b@cox.net

### *Past President*

Dr. Germaine Taggart  
2302 Donald Dr  
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Work: 785-628-4240  
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gtaggart@fhsu.edu

### *Webmaster*

Tim Andersen  
11308 W 53rd Ter  
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tim@andersenimages.com

### *KATS Newsletter Editor and Publisher*

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Hays, KS 67601  
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padams@fhsu.edu

### *KACEE Representative*

Diane Maddox  
10509 W 88th Ter  
Overland Park, KS 66214-1906  
Home: 913-894-2069  
Work: 913-239-5300  
Fax: 913-894-2069

### *KATS Office Consultant*

Vicki Andersen  
PO Box 1172  
Mission, KS 66222-1172  
Home: 913-432-9823  
vandergal@yahoo.com

## LIAISONS

### *KSDE Liaison*

David Barnes  
Math/Science Program  
Work: 785-296-2091  
Fax: 785-296-3523  
dbarnes@ksde.org

### *Informal Science Liaison*

Jared Bixby  
625 N Hedville Rd  
Salina, KS 67401-0  
Home: 785-787-0422  
Work: 785-827-9488  
Fax: 785-827-3738  
Jared@rollinghillswildlife.com

# ***Honoring KATS Past Presidents***

## *KATS Past Presidents:*

1967-1968	Leonard Molotsky
1968-1969	Twyla Sherman
1969-1970	Jan Holman
1970-1971	George Ratzlaff
1971-1972	Glenn Clarkson
1972-1973	Dave Knorr
1973-1974	Eugene Crawford (Deceased)
1974-1975	Betty Amey
1975-1976	DeWayne Backhus
1976-1977	Ramona J. Anshutz
1977-1978	Wendell Mohling (Deceased)
1978-1979	Neil Miller
1979-1980	Leland Keller (Deceased)
1980-1981	Sam Wine
1981-1982	Dudley Fryman
1982-1983	Jan Woerner
1983-1984	Maurice Witten (Deceased)
1984-1985	Walter Smith
1985-1986	Lloyd Fugate
1986-1987	Cathy Yeotis
1987-1988	Charlotte McDonald
1988-1989	Larry Enochs
1989-1990	Carol Williamson
1990-1991	Thomas Manney
1991-1992	Brad Williamson
1992-1993	Brad Williamson
1993-1994	Rose Mary McGuire
1994-1995	Donna Bogner
1995-1996	Captola Taylor Harris
1996-1997	Gary Andersen
1997-1998	Terry Behrendt
1998-1999	Mary Robillard
1999-2000	Barbara Prater
2000-2001	Alan King
2001-2002	Mary Butel
2002-2003	Earl Legleiter
2003-2004	Kay P Neill
2004-2005	Scott D. Capes
2005-2006	David Pollock
2006-2007	Kenneth Thompson (stepped down due to illness)/David Pollock
2007-2008	Germaine Taggart
2008-2009	Emmett Wright

## *Charter Members of KATS:*

Dewayne Backhus  
Neil Miller  
Stan Martin (Deceased)  
Bill Claflin  
John Nickel (Deceased)  
Dean Jernigan  
Glenn Crumb  
Donna Bogner  
Ramona J. Anshutz

## KATS Kamp 2009 List of Exhibitors

Friday, 5:00 PM – 8:00 PM  
Saturday, 8:00 AM – 2:00 PM

Note: Providing an accurate list of exhibitors is intended to recognize vendors for their contributions to KATS. We very much appreciate their involvement with KATS and they deserve our support. We regret any errors or omissions.

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<b><i>It's About Time</i></b> Heff Jones Education Division	Lena Richardson, Administrative Coordinator William Garrison, Sales Consultant lducasserichardson@herffjones.com <a href="http://www.its-about-time.com/">http://www.its-about-time.com/</a>	84 Business Park Drive Suite 300 Armonk, NY 10504 Phone 914-273-2233 Ext. 5-07 Fax 914-206-6444
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Active Physical Science, Active Chemistry, Active Physics, Environmental Science, Project Based Inquiry, Science (Middle School)

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<b><i>Emporia State University</i></b>	Malone I. Davies mdavise@emporia.edu	810 Highway 170 Reading, KS 66868 620-341-5958
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Resources (such as the Kansas School Naturalist) and summer course offerings of interest to Kansas science teachers.

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<b><i>Ken-A-Vision</i></b>	Mary Mitchell, Mike Hiesberger mmitchell@ken-a-vision.com	5615 Raytown Kansas City, Mo 64133
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<b><i>NSTA</i></b>	James L. Puckett jpuckett@socet.net	5505 Valley Dr. Apt. V Saint Joseph, MO 64503-1975
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Information about NSTA membership, student and teacher awards programs, complimentary journals, pens, and pins will be available.

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<b><i>Kansas Foundation for Agriculture in the Classroom</i></b>	Cathy Musick ksfac@ksu.edu	124 Bluemont Hall Kansas State University Manhattan, KS 785-532-7946
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Exploring Kansas Natural Resource Guide for grades 5-6 & complimentary lesson plans. Covers biomes in Kansas, water systems. We are giving each teacher a free Natural Resources & Education Guide at our exhibit.

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<b><i>CPO Science</i></b>	Jessie Herman jherman@cpo.com 816-591-4560	904 West 121st Street Kansas City, MO 64145
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CPO Science provides hands-on, inquiry-based equipment, textbooks, and investigations for grades 6-12

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<b><i>Delta Education</i></b>	Cori Read cread@delta-edu.com 303-674-0303	3257 West Yarrow Circle Superior, CO 80027
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Science manipulatives 8 kits for grades K-8 including FOSS (Full Option Science System) as well & DSM(Delta Science Modules) as well as SEEDS of Science/Roots of Reading.

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<b><i>College of Engineering Kansas State University</i></b>	Tom Roberts clhewitt@ksu.edu 785-532-5455 Fax: 785-532-7810	1056 Rathbone Hall College of Engineering Kansas State University, Manhattan, KS 66506
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Information regarding careers in engineering and literature about the College of Engineering and what it has to offer students.

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<b><i>Sunset Zoo</i></b>	Jared Bixby bixby@ci.manhattan.ks.us 785-587-2730	2333 Oak St. Manhattan, KS 66502
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Sunset Zoo offers a wide range of educational programming to teachers and schools at the Zoo or at their school.

## KATS Kamp 2009 Main Presenters with E-mail Contacts

<i>Presenter</i>	<i>E-mail</i>	<i>Location and Time</i>
Adams, Paul	padams@fhsu.edu	11HCA: 9HCA: 4HCA
Arnold, Phil (Doc Gizmo)	doc_gizmo@hotmail.com	3HCC9: 3HCC
Aurand, Gail Ann	gaurand@pikevalley.com	11FHC
Backhus, DeWayne	dbackhus@emporia.edu	Fri. 9: 30
Beckford, Dwayne	dwayne_beckford@usd368.org	4HCC9: 3HCA: 5HCC.10: 3HCA
Bergman, Daniel	daniel.bergman@wichita.edu	5HCD: 3HCD
Bitter, Lu	muzikman60@sbcglobal.net	9FHC: 10FHC8: 3HCC
Blue, Penny	pblue@usd405.com	10FHS: 8FHC9: 3HCB
Bogner, Donna	dojbo@southwind.net; wcobb@mcrel.org	9HSD
Bonham, Carol	carolb@prattcc.edu	9HCD
Borchers, Carol	caborchers@fhsu.edu	4HSB
Cobb, Whitney	wcobb@McRel.org	10HSD
Cole, Brian	coleb@sabetha441.k12.ks.us	3HCA8: 3HCA
Coulter, Mike	mike.coulter@us.army.mil	10HCB11HCB
Crowley, Janice	jcrowley@wcsks.com	5HSB
Ellis, James	jdellis@ku.edu	10HCA9: 3HCC
Eppich, John	eppichj50@hotmail.com	8: 3HCD
Fritts, Beth	mike.coulter@us.army.mil	8HCB9HCB
Haffener, Steven	haffener@usd230.org	8HCC8: 3HCC
Hageman, Amy	hageman3@ksu.edu	4HCB10: 3HCB
Hopkins, Amanda	ahopkins@fhsu.edu	3HSB
Kennard, Perry	pkennard@usd497.org	8HCA
McDonald, Harry	biologycctrack@hotmail.com	3-5HSD8: 3-10: 3HSD: 5HCD
McGlone, Mike	mcglonem@mac.com	10HSB; 9: 3HSB; 11HSB 8HSB; 9HSB10: 3HSB; 8: 3HSB
Miller, Keith	kbmill@ksu.edu	11HCD
Mohling, Carol	cmohling@aol.com	10FHM
Newdigger, Carrie	newdiggerc@usd351.com	8HSD
Reist, Rhonda	rreiston@olatheschools.com	10HCC; 11HCC
Robillard, Mary	mrobillard7360@att.net	8HCD9: 3HCD
Rose, Shirley	srose@usd259.net	8FHS
Ross, John	jross@fhsu.edu	10HCD
Schaef, Connie	schaefc@usd300ks.com	4HCD10: 3HCD
Sherow, Thomas	tosherow@usd260.com	8FHM
Smith, Georgia	georgiasmith@smsd.org	3HCB
Taggart, Germaine	gtaggart@fhsu.edu	9FHM
Tipton, Julie	jtipton@usd405.com	11HSD
Waugh, Amanda	arwaugh@scatcat.fhsu.edu	5HCB
Wenzl, Patrick	patrick.wenzl@harcourt.com	8FHPR; 10FHPR; 9FHPR; 11FHPR
Williamson, Carol	williamc@olatheschools.com	9HCC
Wright, Valerie	konzaed@ksu.edu	9FHS; 11FHS
Wright, Mary Jane	thewrightart@yahoo.com ; birdhunt@ksu.edu	FH Outdoor Shelter

\*Note: Providing an accurate list of presenters is intended to recognize their valuable contributions to KATS. Kats appreciates their involvement and willingness to make KATS a success. We regret any errors or omissions. Please note that co-presenters are not included in this list since e-mail addresses were not obtained from them. Co-presenters are not included in the list above since e-mail addresses were not obtained from them.

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## NOTES



# KATS KAMP 2009 - PERSONAL PLANNER

SATURDAY - 25 APRIL 2009

<i>Time</i>	<i>Title</i>	<i>Location</i>
8:00 AM		
9:00 AM		
10:00 AM	Silent Auction - Mohling Scholarship	Heritage Hall, Lower Level
11:00 AM		
10:00 AM		
12:00 PM	Lunch	Williams
1:00 PM	Keynote Speaker: Mr. Michael Weiss	Heritage Hall, Spencer Auditorium
2:30 PM	Regional Meetings	
3:00 PM		
4:00 PM		
5:00 PM		
3:00 PM		
4:00 PM		
5:00 PM		
6:00 PM	Dinner	Williams
7:30 PM	Special Presentations	Heritage Hall, Spencer Auditorium
Later	40th Anniversary Celebration, Social Hour	Heritage Hall, Lower Level

SUNDAY - 26 APRIL 2009

<i>Time</i>	<i>Title</i>	<i>Location</i>
7:00 AM	Interdenominational Vespers	Vesper Lookout
7:15 - 8:30 AM	Breakfast	Williams
8:30 AM		
9:30 AM		
10:30 AM		
11:30 AM	Lunch	Williams