It’s called Library Science for a reason! 😊

Kellie Vaughn, Lee Elementary
Janet Latham, W.S. Ryan Elementary
Mary Pruitt, Borman Elementary
Aaron Graves, Savannah Elementary
Carol Richmond, Wilson Elementary
Denton ISD
Find your avenue to collaboration

- District Science Program
- Adopt-a-Tree
- Discovery Centers
- Paper Making
- FOSS kits
- Novel/Science Connections
District Training

- Know curriculum, instruction and materials
- Use the knowledge to incorporate and strengthen instruction through the library
Ants
Bats
Bat Poem

• Use Photostory to create product!

Bats
DISCOVERY CENTERS
History of a Tree

- **Bark** - protects the inside of the tree.
- **Fibres** - stores food from leaves.
- **Cambium** - the tree grows from here.
- **Xylem** - carries minerals and water in sap.
- **Sapwood** - carries minerals and water in sap.
- **Heartwood** - dead hard center of tree, supports tree.
- **Scar** - shows fire damage.

How old do you think this tree was? _______
Do You Recognize These Leaves and Needles?

LEAF COLLECTING

- Identify leaves and needles by their shape, size, and arrangement.
- Collect samples from different environments to compare and contrast.
- Use a field guide or consult with a botanist for identification.
- Store collected leaves and needles in a dry, labeled collection box.
- Use collected leaves for various educational and artistic projects.
SPECIAL PROGRAMS

- MAKING PAPER: 2\textsuperscript{ND} GRADE BILINGUAL
- RECYCLING
- LITERATURE CONNECTION: WESLANDIA
Weslandia
PAUL PLEISCHMAN

miserable
miserable
desdichado

outcast
marginado

Listening through the heating vent, Wesley knew they were right. He was an outcast from the celebration around him.

He alone in his town disliked pizza and soda, alarming his mother and the school nurse. He found professional football stupid. He'd refused to shave half his head, the hairstyle worn by all the other boys, despite his father's bribe of five dollars.
ADOPT-A-TREE

- 1st Grade Bilingual, 2nd Grade Bilingual, 2nd Grade, 3rd Grade, EXPO 1st/2nd Combo
- Plant Life, Conservation, Renewable Resources
- Resource: Project Learning Tree (Teachers’ Conservation Network)
- Literature Connection: Fiction/NonFiction
PARTS OF A TREE
FOSS Kits

• FOSS Kits available:
  – Tree
  – Air and Weather
  – Landforms
  – Magnets
FOSS Kits

• Schedule
  – Meet with Team
  – Look at Investigations that match TEKS
  – Assign Investigations to team members and librarian
  – Create Master Schedule (times, dates, teachers)
FOSS Kits

• Teacher Responsibilities:
  – Assign groups
  – Be on time
  – Set up investigation on assigned day
  – Help facilitate investigation and discussion
  – Review with students in the classroom

• Librarian Responsibilities:
  – Provide space
  – Help with set up
  – Set up investigation on assigned day
  – Look for media correlations (read aloud, video streaming, etc.)
  – Help facilitate investigation and discussion
FOSS Kits - Pictures
Connecting Literature and Science

• *Hubert Invents the Wheel* by Claire and Monte Montgomery
• Met with Science Coordinators
• Teacher Read Alouds
• Set up centers in library
• Force and Motion and Invention Research
Third Grade
• (6) Science concepts. The student knows that forces cause change. The student is expected to:
• (A) measure and record changes in the position and direction of the motion of an object to which a force such as a push or pull has been applied;

Fourth Grade
• (5) Science concepts. The student knows that complex systems may not work if some parts are removed. The student is expected to:
• (A) identify and describe the roles of some organisms in living systems such as plants in a schoolyard, and parts in nonliving systems such as a light bulb in a circuit; and
• (B) predict and draw conclusions about what happens when part of a system is removed.

Fifth Grade
• (3) Scientific processes. The student uses critical thinking and scientific problem solving to make informed decisions. The student is expected to:
• (A) analyze, review, and critique scientific explanations, including hypotheses and theories, as to their strengths and weaknesses using scientific evidence and information;
• (B) draw inferences based on information related to promotional materials for products and services;
• (D) evaluate the impact of research on scientific thought, society, and the environment; and
• (E) connect Grade 5 science concepts with the history of science and contributions of scientists.
**Divide Class into 6 teams (make sure they know their TEAM NAME!!! :))**

**4th and 5th - bring science journals**
Planning Science In the LMC

- What TEKS do we lack good resources to teach?
- What concepts (TEKS) need reinforcement? *(Hubert Invents the Wheel)*
- What do teachers need help teaching, because they lack the time or skills to find resources and lessons?
TEKS 8(C) 4th Grade

8(C) identify the kinds of species that lived in the past and compare them to existing species.

• Textbook was not adequate.

• Teacher did not have time to locate species and their pre-historic relatives and couldn’t find another teacher who had a great lesson.
Librarians to the Rescue

• **Search skills + time give us great resources**
  
  Discovery Channel “Meet the Beast” –
  
  Gives facts about prehistoric animals and their closest relatives.
  

• **Integrate library skills and other resources.**
  
  Britannica – Online Encyclopedia
  
  Kidspiration – Venn Diagram
Meaningful Multimedia Project
If you can’t collaborate...elaborate!

Carol Richmond, Wilson Elementary
Denton ISD
Fifth grade science videos

- Divide fifth grade science vocabulary into groups of words
- Assign a group of words to each group of 3-4 students

<p>| | |</p>
<table>
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<tr>
<td>conductor, insulator</td>
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<tr>
<td>compound, mixture, properties</td>
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<tr>
<td>carbon Cycle, carbon dioxide, photosynthesis, oxygen, respiration, transpiration</td>
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<tr>
<td>nitrogen Cycle, nitrogen</td>
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<tr>
<td>decay, decomposer</td>
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<tr>
<td>food chain, food web, carnivore, herbivore, omnivore</td>
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<tr>
<td>consumers, producer</td>
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<tr>
<td>water Cycle, precipitation, evaporation, condensation</td>
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Fifth grade Science Videos

- Research the word groups
- Write a script or make a story board
- Script approval
- Practice
- Video tape
- Edit using Windows Movie Maker
- Movie Marathon
Heat is a form of energy that moves from one object to another as a result of a difference in temperature. It usually moves from a hot object to a cooler object. The cooler object absorbs this energy and becomes warmer.

Ordinary matter is made of atoms and molecules, which are always in motion. As the molecules in an object move faster, the heat energy in the object grows. As the heat of the object increases, so does the temperature.
Turtle and His Peeps
Cheezy Puppet Show

Instinct
Learned Behaviors
Feedback from the Classroom

• Ownership of their terms
• Excitement about the project
• Teacher used some in class to review concepts
• Science TAKS results: 98% passing, 65% commended
K-2 Electronic Worksheets

- Piggyback on science topics from classroom
- Read pumpkin stories:
  - *Too Many Pumpkins* by Linda White
  - *Pumpkin Circle* by George Levenson
- Import science videos from UnitedStreaming
- Students fill-in-the-blank
Life Cycle of the Pumpkin
Word bank: flower fruit seed seedling plant
Happy Halloween!
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