

Interdisciplinary Units with a Twist of Technology

Heroes, Helpers and Entrepreneurs

TIE Conference
April 6, 2008

Sioux Falls
Washington High School

Technology in the Home

Inventions of the 20th Century

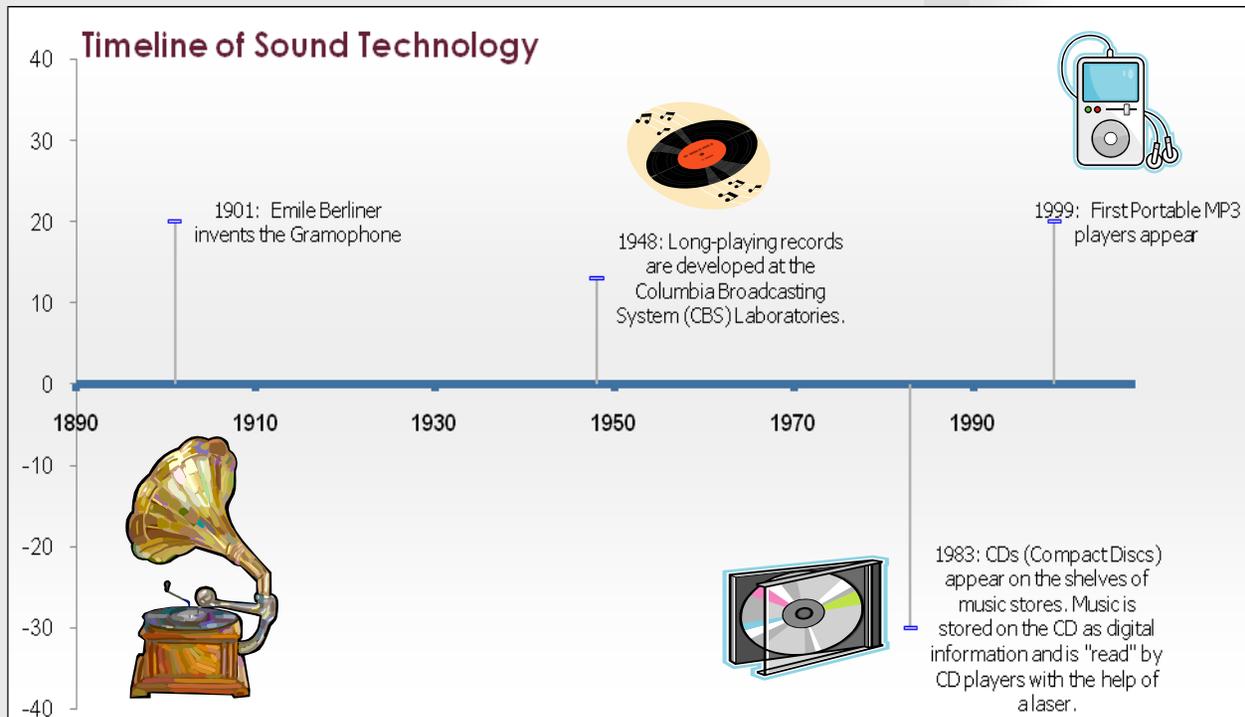
- **EXPLORE** *Inventions of the 20th Century*
This activity lets students go back through the century to discover when everyday technologies in the home first appeared.

<http://www.pbs.org/wgbh/aso/tryit/tech/>

- **CREATE** *an invention timeline with excel*

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Technology and Energy

- **ENGAGE with Energy Vampires**
This activity lets students explore the amount of energy that common household appliances use.

<http://www.energyquest.ca.gov/vampires/dswmedia/index.html>



- **EXPLORE energy :**
Your Planet Needs You, Find Out Why

http://www.energystar.gov/index.cfm?c=kids.kids_index

<http://www.touchstoneenergykids.com/farm.php>

Sources of Energy

<http://www.eia.doe.gov/kids/energyfacts/index.html>

- **CREATE books to organize research**

ENERGY
What is energy?
Where does energy come from?
What are the two types of energy?
What are the consequences of energy?

How?
 Fold and staple two sheets of paper.

How?
 Fold one sheet of paper hotdog style leaving a small edge. Then fold it hamburger style. Unfold and cut top tab into two.

Non-renewable 	Renewable 
Sources of Energy	

Mapping Sources of Energy in SD

- *EXPLAIN what are the energy sources in South Dakota?*

SD energy profiles

http://tonto.eia.doe.gov/state/state_energy_profiles.cfm?sid=SD

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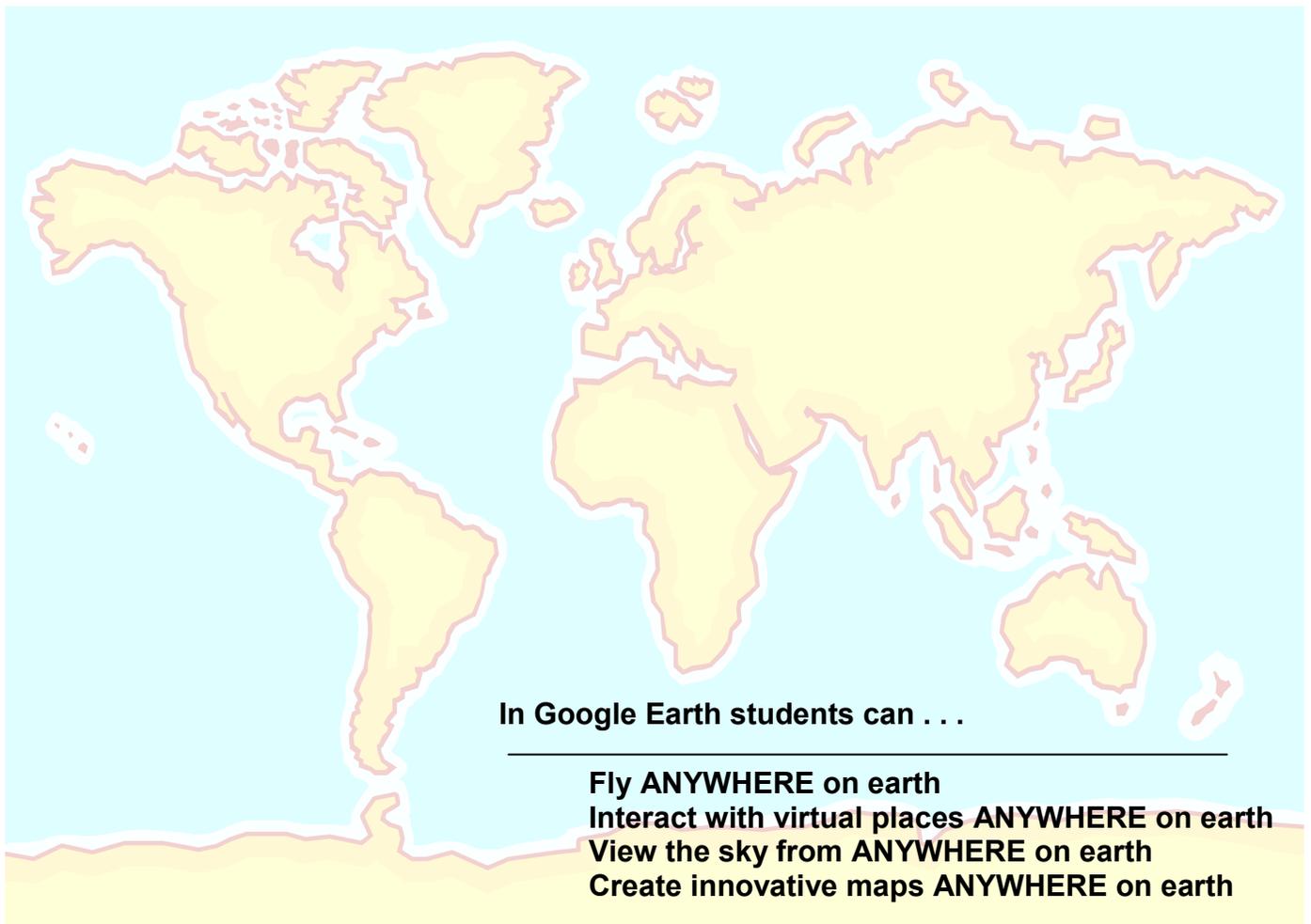
- *MAP energy sources in SD*

Google Earth

<http://earth.google.com>

It's FREE!!!!

Explore the world in 3-dimensions using satellite imagery.

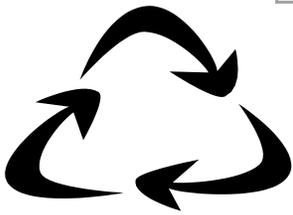




Be A HERO: Save Energy

- *MOTIVATE students to action with success stories*

Learn about the progress SD is making with renewable energy with the free online video "Windmills to Windfarms"	http://sdwind.com/moreinfo/moreinfo.htm
Learn how students at other schools are saving energy.	http://www.energystar.gov/index.cfm?c=kids.kids_cal
"This bulb" Utube video.	http://www.youtube.com/watch?v=FvOBHMb6Cqc
"Lights Out-Energy Saving Game".	http://www.touchstoneenergykids.com/games/cfl_game.php



- *BRAINSTORM strategies to save energy*

"You can make big changes-Find out how".	http://www.energystar.gov/index.cfm?c=kids.kids_index
Find out where energy is wasted in the average American home.	http://www.teachersdomain.org/resources/tdc02/sci/ess/earthsys/warmingweb/index.html
Energy-saving tips	http://www.touchstoneenergykids.com/
"Change a light-bulb, Change the world campaign"	http://www.energystar.gov/index.cfm?c=kids.kids_cal
"Recycle my old Fridge"	http://www.recyclemyoldfridge.com/

4th Grade Science Standards Met:

4.L.2.2 Students are able to explain how a size of a population is dependent upon the available resources within its community

Know community resources

Define population

4.S.1.1 Students are able to describe how people continue to invent new ways of doing things, solving problems, and getting work done.

Ways progress makes our lives easier

People and inventions can have tremendous impact on our daily lives; (cell phones vs. telephone)

4.S.1.2 Students are able to explain how new ideas and inventions often affect people

Explain the benefits of new ideas and inventions. (television, electric lights)