

MIDDLE SCHOOL CIA  
MON, APRIL 21, 2008

ANNOUNCEMENTS:

Employment/Positions:

Some open positions: many MS Science (034,234,235), more to come?

Ninth grade science/Chemistry

No Bio openings anticipated.

Requests for transfer must be approved by both principals and supervisor.

Teachers leaving system are asked to informally inform supervisor. (Resignation before June STILL saves health benefits for summer).

IDEAS???

Summer Programs:

2,3,4<sup>th</sup> grade with UNH.

BioDiversity Peabody still has slots

Others... see CT Science Connection newsletter emailed.

Science Fair:

Registrations finalized Wed, Apr 23<sup>rd</sup>.

7/8 Science teachers don't HAVE to run fair for school!

Curriculum:

Draft of [7<sup>th</sup> grade](#), [8<sup>th</sup> grade additional units](#) online.

FEEDBACK WANTED!!!!!! On all curriculum, ideas for other activities, projects, labs, assessments, etc... send via email!

DISTRICT Committee: to look at time and schedules for science.

Info/feedback wanted:

What happens during CMT?

How much science does EVERY student get?

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TOPIC of the DAY:

Issues based Science

WHY?

HOW?

WHAT?

## CT SCIENCE STANDARDS

apply science process skills  
read and write science-related texts  
search scientific databases  
use mathematics to make sense out of data  
pose and evaluate arguments based on evidence  
apply logical conclusions from such arguments

INQ2 Read, interpret and examine the credibility and validity of scientific claims in different sources of information.

INQ9 Articulate conclusions and explanations based on the results of the research, and assess their validity based on the design of the investigation.

INQ10 Communicate about science in different formats, using relevant science vocabulary, supporting evidence and clear logic.

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STUDENTS TALK TO EACH OTHER ABOUT SCIENCE, ISSUES and THEIR THINKING!!

HOW:

Evaluate a web site:

Have a debate:

Write an essay:

Present an issue:

Have a FORUM:

(assign a role to each group, they investigate, present, discuss, a town council decides)

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IMPACT OF SCIENCE AND TECHNOLOGY:

RISKS

BENEFITS

ADVANTAGES

DISADVANTAGES

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ASSESSMENT:

GENERAL RUBRIC (writing) 1-6

Taking a clear stand or position

Supporting position with accurate and relevant information

Organizing ideas logically and effectively

Expressing ideas with clarity and fluency

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MAKING DECISIONS/ FORMING OPINIONS

Yes/No ---→ IN BETWEEN -→ OPEN ENDED

What is the effect of fossil fuel use on global temperatures? (science)

Why do we use fossil fuels for energy? (science, economics)

What is the effect of fossil fuel use on the environment? on society? (science, social)

What alternatives are there to fossil fuels?

What are the risks/benefits or the advantages/disadvantages to using fossil fuels for energy?

What are the credible, reliable sources on using fossil fuels for energy?

Should we keep using fossil fuels? (Yes/No)

Yes, but..... NO, and use this instead....

What should we do about fossil fuels? Why? How?

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MIDDLE SCHOOL:

What are the advantages and disadvantages of food preservatives? What is your opinion and why?

How should/do we protect ourselves from natural disasters?

Resources:

“Society and Science” Decision Making Episodes for Exploring Society, Science and Technology Stahl

Dr. X and the Quest for Food Safety Interactive Video (46:00 min.)

<http://www.cfsan.fda.gov/~comm/vltdrx.html>

Science And Our Food Supply: Curriculum <http://www.foodsafety.gov/~fsg/teach.html>

Event Based Science Modules: Volcano, Earthquake, Asteroid, Hurricane

Online resources:

National Center for Case Study Teaching in Science

<http://ublib.buffalo.edu/libraries/projects/cases/case.html>

Case Study Teaching in Science Bibliography:

<http://ublib.buffalo.edu/libraries/projects/cases/teaching/casebiblio.html>

FORCES OF NATURE

<http://library.thinkquest.org/C003603/english/index.shtml>

What are some ways we can use this with middle school students?

What are the structures needed?

How will you get the students talking/discussing with each other?

EXAMPLE:

Slippery Slope landslide: [http://ublib.buffalo.edu/libraries/projects/cases/landslide\\_notes.html](http://ublib.buffalo.edu/libraries/projects/cases/landslide_notes.html)  
SLIPPERY SLOPE OF LITIGATING GEOLOGIC HAZARDS:  
CALIFORNIA'S PORTOGUESE BEND LANDSLIDE

DISCUSSION NOTES:

What does YOUR GROUP think the main cause of the landslide was?

Earthquake      Vibration from Construction      Added Mass to the head of the slide

Added Mass to the "toe" of the slide      Vibration from traffic

Added water from septic system to the clay/groundwater      volcanic ash

Weakening of clay from detergents      wave erosion at the toe

WHY?

WHO SHOULD PAY FOR "FIXING" THE SLIDE?

The homeowners on the hillside      the company who built the homes

The people in Rolling Hills (north of the slide)

the company who built Crenshaw Blvd      the company who built Palos Verdes Drive

the company who built the septic systems      geologists who helped the county

the county of Los Angeles who approved the roads

WHY?

WRITING ASSIGNMENT: Who is responsible for protecting against landslides? (in general) . Discuss your opinion, and what you think the role of individual people, scientists, companies, and local and state governments should be in protecting against landslides. What should each do, and why?

(3-5 paragraphs)

THEN:

Meet as a class and DECIDE!