

Introduction to *Lithosphere Impact Project*

December 15, 2014

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Review: Layers of the Earth

Whiteboards! What are the major layers of the Earth?

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The Physical Structure of the Earth

Lithosphere: Continental and oceanic crust. Divided into tectonic plates.

Asthenosphere: Top part of mantle. Flows like soft plastic, think silly putty!

Upper & Lower Mantle: Thickest layer; most of Earth's mass. Hot softened rock.

Outer Core: Thought to be liquid iron & nickel

Inner Core: Thought to be solid iron & nickel

Lithosphere Impact Project

- Review: What is the lithosphere?
 - Is the rigid, outermost part of our rocky planet. Known as the crust

Three Main Areas of Impact:

- Geohazards
- Human Activities
- Traditional Energy Sources

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Area 1: Geohazards

- Geohazards**
 - Any natural hazard that is caused by the Earth.
 - They can cause great loss of life and damage to property when they occur so governments are always looking for ways to reduce the impacts of geohazards.
 - It is sometimes possible to predict when certain geohazards will occur.

Whiteboards! How many geohazards can you name?

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Earthquakes

- Let's review together....

Whiteboards! Where do earthquakes most frequently occur?

<https://www.youtube.com/watch?v=kqD0pqDOAtk>

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Volcanoes

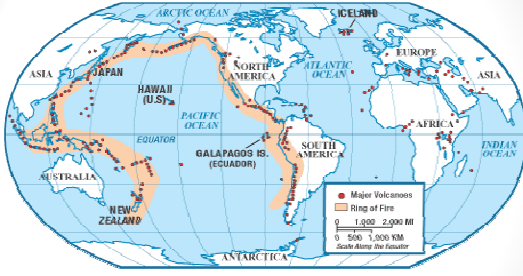
- Let's review together...



Whiteboards! Where are most of the world's active volcanoes located?


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Circum-Pacific Belt ("Ring of Fire")




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Landslides

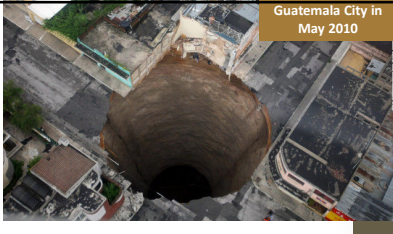


Tsunamis




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Sinkholes




Flooding



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Groundwater Pollution



A spring in Clark County on Two Mile Creek, polluted with crude oil from a break in an oil pipeline. Kentucky (2001)

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Area 2: Human Activities

- Human Activities**
 - We also impact the lithosphere. Are influences on the land have changed over time.
 - Mining
 - Deforestation
 - Agriculture
 - Overgrazing
 - Urbanization

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Area 3: Traditional Energy Sources

- **Traditional Energy Sources**
 - The traditional ways that we have made energy also make use of the lithosphere
 1. Peat
 2. Coal
 3. Oil
 4. Natural Gas
 5. Nuclear Fission
 6. Wood

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Timeline of Project

- **Today:** Introduction to the project
- **Tomorrow: Computer Lab** Research your topic
- **Wednesday:** Design a brochure on your topic
- **Thursday:** Present parts of your brochure to the class

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Drawing out your topic....

- I drew your topic
- Make note of your topic for tomorrow's research in the computer lab!
 - Conduct your research tomorrow to have the information you need to prepare your brochure on Wednesday

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Brochure

- **Public service announcements (PSA)**
 - Messages in the public interest circulated by the media
 - Objective of raising awareness, as well as changing public attitudes and behavior towards a social issue
- Example of a PSA →
- Do you know who this is?
- Smokey the Bear, created in 1944 by the U.S. Forest Service to help raise awareness on the dangers of forest fire



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What makes a good PSA

- On your whiteboards... write out characteristics of a good PSA.

Period 1
Graphics Slogan Character Headlines Attractive, catches your eye Funny Emotional Connection Catchy music/song Sense of danger, care for personal safety

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What makes a good PSA

- On your whiteboards... write out characteristics of a good PSA.

Period 2
Mascot/Character Funny Slogan Involve social media Concerns about danger → promise of safety

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What makes a good PSA

- On your whiteboards... write out characteristics of a good PSA.

Period 3

- Slogan
- Symbol
- Persuasive
- Informative
- Music/Song
- Color
- Character/Actor/Mascot
- Real People-- Interviews – how it affects people
- Action in a movie
- Interesting-- relatable

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What makes a good PSA

- On your whiteboards... write out characteristics of a good PSA.

Period 4

- Pictures
- Catchy Slogan
- Mascot
- Color; Bright; Attractive
- "Cool" I Like it
- Relatable
- Song/Music
- Logo

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What makes a good PSA

- On your whiteboards... write out characteristics of a good PSA.


Period 5

- Pictures
- Good Information
- Color
- Videos
- Music/Song
- Slogan
- Good Cover
- Sad/Emotional Tie In

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Organization

- In your research you may come across...
- Environmental Protection Agency (EPA)
 - The mission of EPA is to protect human health and the environment. EPA's purpose is to ensure that: all Americans are protected from significant risks to human health and the environment where they live, learn and work.



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Look it Up!

- Use the textbooks to look up and read the basic information about your topic

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Tonight's Homework

- Continue working on your test corrections from last week's test
 - due on Thursday, December 18th
- Notebook check on Thursday, December 18th
- Work on any missing or late work

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