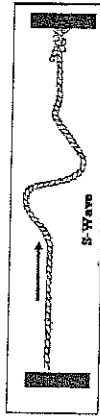
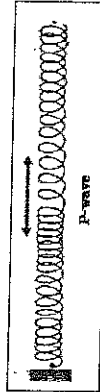


Science 9 - Unit 4 Review - Earthquakes

- Describe the relationship between the epicenter of an earthquake and the focus of an earthquake.
epicenter is underground, and the focus is above the focus, above ground.
- Label each type of wave below as a P wave or S wave and identify each as a longitudinal or transverse wave.



transverse wave



longitudinal wave

Complete the Chart below.

Wave Type	Speed	Materials it travels through	Transverse/Longitudinal
Primary wave	<i>fastest</i>	<i>solid, liquid, gas</i>	<i>longitudinal</i>
Secondary wave	<i>slower</i>	<i>solid</i>	<i>transverse</i>
Surface wave	<i>slowest</i>	<i>solid</i>	<i>both</i>

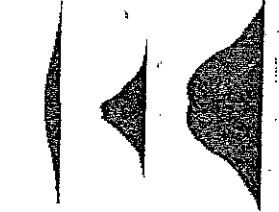
Surface waves

- Briefly describe what the Richter scale measures.
measures magnitude of an earthquake
- What does each step on the Richter scale represent?
the magnitude of the earthquake.
- Briefly describe the Modified Mercalli scale and what it measures.
measures intensity, and people's observations
- With which scale do scientists use isoseismal lines in order to determine the epicenter of an earthquake?
Mercalli
- Which scale would most likely be used to tell how much damage was done to buildings and people?
Mercalli
- Explain why the risk of earthquakes is high on the Pacific coast of the U.S.
because that's where 2 plates meet.
- Identify the type of plate boundary where earthquakes occur. Identify the instrument scientists use to measure earthquake waves.
transform fault; seismograph

Name _____

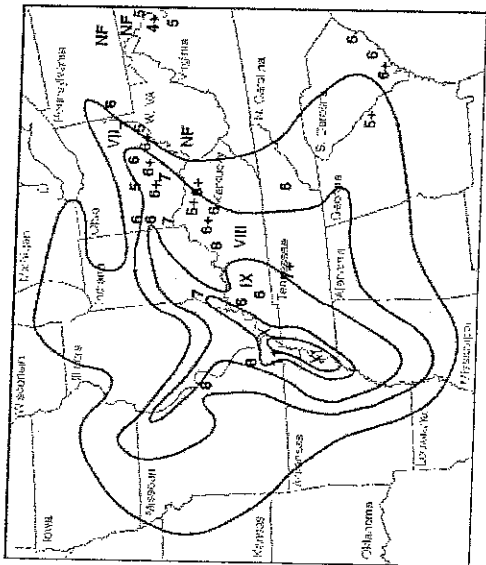
Unit 4 - Volcanoes - Review

- Describe the relationship between lava, magma and the term vent as they relate to a volcano.
lava comes out of the volcano, magma is inside the volcano, lava comes out of the vent.
- Label each type of volcano below and list one example of each. Label the most common type of volcano.
*- shield
 - composite
 - cinder cone - most common*



Complete the chart below.

Type	Magma Composition	Type of eruption	Shape	Example	Other info.
Composite	rich in silica	violent	steep slope	MT. ST. HELENS	10000 of meters high
Cinder cone	rich in number of silica	violent	cone	FANTOMI	only a short escape of lava
Shield	rich in silica	mild	gentle sloping side	HAWAII	flows great distance



Use this map to answer the questions below.

- What do the numbers represent? *- the intensity in that location*
- Where is the epicenter? *- V.I.I.I*
- Which scale, Mercalli or Richter, was used to gather the data for this map? *- Mercalli*
- What is each line called? *- isoseismic lines*
- What does each line represent? *- similar effects*
- Would you be safer in S. Carolina or Arkansas? How do you know? *- Arkansas because there's no numbers around Arkansas*
- Would you be safer in Tennessee or Georgia? How do you know? *- Georgia because there's no effects there.*
- In your opinion, is the information on this map and others like it useful if you are choosing a place to live or to build your home?

Yes because it shows what states are affected by earthquakes.

1. What is an ecosystem and how is it organized (see Figure 21-2).

An ecosystem is all the living and nonliving elements in a particular place.

2. Describe the size(s) of an ecosystem.

May vary; small as puddle

3. Describe how one small change can affect an entire ecosystem - give a specific example.
Zebra mussels; damage trout and tolerate the great lakes.

4. What does it mean to say "ecosystems gradually return to their original conditions?"

By succession, in which the population gradually increases short-term include seasonal change, long-term include forest fire.

6. How do nonnative species impact ecosystems?

They change the way the ecosystem is functioning.

7. Why is the sun so important to ecosystems?

It helps function the ecosystem.

8. Describe Figure 21-12.

It's showing an ecosystem in action, what's happening at each thing.

9. What are fossils fuels?

Fossil fuels are any fuels formed from the remains of ancient life.

10. What some benefits and drawbacks of using fossil fuels?

Benefits	Drawbacks
<ul style="list-style-type: none"> • can be used to produce fuel. • can be drilled <p>11. List five alternative energy sources.</p> <ul style="list-style-type: none"> • wind energy • hydroelectric • solar energy • geothermal • nuclear 	<ul style="list-style-type: none"> • nonrenewable • cause pollution

12. What are the benefits and drawbacks of using alternative energy sources?

Benefits	Drawbacks
<ul style="list-style-type: none"> • renewable • don't cause pollution 	<ul style="list-style-type: none"> • unpredictable • wide spread of geothermal is unlikely.

14. What are all the sources/causes of pollution mentioned in your book?

Natural causes, such as volcanic eruption.
Human causes such as chemical treatment, combustion of fuel, farm land.

POLLUTION

Complete the following table.

	Air	Water	Land
Causes	<ul style="list-style-type: none"> • dump of waste and garbage • factories • power plants • cars • fertilizers • chemicals 	<ul style="list-style-type: none"> • oil spill • fertilizers • industries • waste • chemicals 	<ul style="list-style-type: none"> • car exhaust • trash • dump • garbage
Effects	<ul style="list-style-type: none"> • people • plants • could • harmful • of smog • acid rain 	<ul style="list-style-type: none"> • water supply • the water • we drink • die • die 	<ul style="list-style-type: none"> • death • of wildlife • harmful
Possible Solutions	<ul style="list-style-type: none"> • use renewable resources • use energy • clean • vehicle 	<ul style="list-style-type: none"> • don't pollute • use water wisely • don't dump • dump in • with in • out land, give 	<ul style="list-style-type: none"> • don't use • use pesticides • dump trash • properly

15. What are some pros and cons of recycling?

pros - allows things to be used over and over again.

cons - items don't always break down

16. Why do different plastics have different numbers on their recycling codes?

Different plastics have different

numbers because it shows what

type of plastic it is and from