

You'll be turning in your textbook this week. You can use the following items to assist you in addition to [Glencoe's Online Resources](#).

- ★ Your Science Notebook --- vocabulary from each lesson, your answers to the questions in the "Summarize It" boxes
- ★ End of chapter review questions (done on binder paper ch 5-9), the end of chapter Agree/Disagrees in the SciNB,
- ★ Returned tests and/or WIGWAYS from chapters 5 through 9.

## Review Questions for Chapters 5 - 14

- answer on binder paper in full complete sentences, be sure to restate the questions.

### 5. Plate Tectonics

- 5.1. What is the relationship between a fracture and a fault?
- 5.2. What type of boundary occurs along mid-ocean ridges? What happens at these boundaries? How is Iceland an example of a landform along the mid-ocean ridge?
- 5.3. What type of boundary occurs along the San Andreas Fault? What happens at this boundary?
- 5.4. What type of stresses are involved in mountain building?

### 6. Earthquakes

- 6.1. Where is the focus of an earthquake located?
- 6.2. Which type of seismic wave usually causes the most damage, and why?
- 6.3. What is the difference between an earthquake's magnitude and its intensity?
- 6.4. What are three hazards that can result from an earthquake?

### 7. Volcanoes

- 7.1. What are three places where volcanoes occur?
- 7.2. What kind of volcano is characterized by free-flowing basaltic lava and very little explosive activity?
- 7.3. What are some warning signs scientists look for to help predict volcanic eruptions?
- 7.4. What is a pyroclastic flow?
- 7.5. What are 6 volcanic landforms?

### 8. Weathering and Erosion

- 8.1. What are two examples of chemical weathering?
- 8.2. What causes erosion?
- 8.3. What is the difference between the formation of U-shaped valleys and V-shaped valleys?

- 8.4. Why are plants or vegetation important in preventing erosion?
- 8.5. How can plants or vegetation cause erosion?
- 8.6. What landforms would you expect to find in the California deserts, along the coast, and in the mountains and valleys? Which of these are due to erosion and deposition?
- 8.7. Explain how scientists can figure out the relative age of a rock. (Principle of Superposition, Inclusion...)

### 9. Earth's Atmosphere

- 9.1. Name five gasses found in Earth's atmosphere (list them in order from most abundant to least).
- 9.2. Why is the amount of solar radiation at Earth's poles less than the equator?
- 9.3. What is the process that heats air close to Earth's surface?
- 9.4. What is an updraft? How is it different than a downdraft?
- 9.5. Describe how natural geologic events and human actions can increase the average surface temperature on Earth.

### 10. Oceans

- 10.1. What is a bathymetric map? How is it made?
- 10.2. What factors influence the formation of surface and ocean currents?
- 10.3. How does sand form? How is it transported along California's coast? How have humans influenced the movement of the sand?
- 10.4. Why is water off the California coast colder than water at a similar latitude off the Atlantic coast?

### 11. Weather & Climate

- 11.1. Which cycle moves water in Earth's hydrosphere? What are the 3 to 4 major ways water moves through this cycle? What are the different types of precipitation?
- 11.2. What percent of the water on Earth is fresh water & where can fresh water be found?

- 11.3. What are four main factors that determine weather?
- 11.4. What are high-pressure systems and low-pressure systems?
- 11.5. What is the difference between weather and climate?
- 11.6. How does California's climate influence our need to conserve water?
- 11.7. How do the cycles of day and night, seasons, El Niño, and La Niña affect California's weather?
- 11.8. What is a rain shadow? How does it form?
- 11.9. How do the California westerlies affect the weather in California?

### 12. Ecological Roles

- 12.1. What are four abiotic factors that are parts of ecosystems?
- 12.2. What is a limiting factor?
- 12.3. How do two California biomes, the desert and the chaparral, differ?
- 12.4. What does an organism's niche describe?

### 13. Energy and Matter in Ecosystems

- 13.1. What is the difference between producers and consumers?
- 13.2. What is the role of producers in a food chain?
- 13.3. How is a food chain different from a food web?
- 13.4. How does nitrogen in the air make its way into plants?

### 14. Resources

- 14.1. What is the difference between organic and inorganic resources?
- 14.2. What are renewable resources?
- 14.3. How did fossil fuels form?
- 14.4. How does driving automobiles deplete nonrenewable resources?
- 14.5. What are 3 natural resources in California? Why should they be conserved or used?

**Reviewing Main Ideas for Chapters 5 - 14:**

**Chapter 5: Plate Tectonics**

➔**Lesson 1 Main Idea:** There are three main types of plate boundaries, where stresses cause rock to deform. What are three types of plate boundaries, and what type of stress affects each?

Plate boundary	motion at boundary	type of stress	Change in plate position	Topographic features	Example(s) in California or world	Type of Fault which is formed
1. C_____	An <u>oceanic</u> and an <u>oceanic</u> plate move toward each other.	_____	One of the plates slides beneath the other (denser plate _____)	- _____ - _____	-Japan Island Arc	_____
	One <u>oceanic</u> and one <u>continental</u> plate move toward each other.		The oceanic plate always sinks (or _____)	- _____ - _____	- _____	
	A <u>continental</u> plate and a <u>continental</u> plate move toward each other.		Colliding continents are uplifted.	- _____ - _____	- _____	
2. D_____gent	Two plates move away from each other.	_____	_____ _____	- _____ - _____	- _____ - _____	_____
3. T_____	Two plates slide past each other.	_____	One plate slides _____ _____	- _____ - _____	-San Andreas Fault, California -Izmit fault, Turkey	S_____ _____

➔**Lesson 2 Main Idea:** Many of California’s landforms were produced by plate tectonic activity, which continues today.

California contains both a transform boundary and an offshore convergent boundary. Complete the chart below.

Landform	Plate Boundary Type	Type of Stress Experienced
Los Angeles Basin		
Cascade Range		
San Andreas Fault		
Mid-Atlantic Ridge ( <i>not in California</i> )		

**Chapter 6: Earthquakes**

**➔Lesson 1 Main Idea: Most earthquakes occur at plate boundaries when rocks break and move along faults.** Describe one region on Earth where earthquakes occur along a plate boundary.

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**➔Lesson 2 Main Idea: Earthquakes cause seismic waves that provide valuable data.** What is the difference between the focus of an earthquake and its epicenter?

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**➔Lesson 3 Main Idea: Data from seismic waves are recorded and interpreted to determine the location and size of an earthquake.** Why do scientists need to know the arrival time of both S-wave and P-waves to determine the distance to an earthquakes epicenter?

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**➔Lesson 4 Main Idea: Effects of an earthquake depend on its size, and on the types of structures and geology in a region.** How can buildings be constructed to tolerate shaking and avoid collapsing during an earthquake?

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**Chapter 7: Volcanoes**

➔**Lesson 1 Main Idea: Most volcanic activity occurs along plate boundaries where plates move relative to one another.** How do volcanoes at divergent plate boundaries differ from volcanoes at convergent plate boundaries? Where do volcanoes form if they're NOT near a plate boundary?

Where Volcanoes Occur	Cause	Topographic features	Example(s) in California or world	Type of Eruption
1. C _____ gent	Subduction at Ocean to Oceanic Plate	-Island Arcs	-Japan Island Arc	
	Subduction at Continental to Oceanic Plate	-Volcanic Arcs, -Mountains & Mountain Ranges	- _____	
2. D _____ gent	Plates pulling apart, magma filling in between during fissure eruptions	-rift valleys, - _____	- _____ - _____	
3. H _____ S _____	Location of superheated magma in mantle	- _____	- _____ Islands -Yellowstone National Park	

➔**Lesson 2 Main Idea: The composition of magma controls volcanic eruptions and determines the different types of lava flow and volcanic features.** What can you predict about a volcano's eruption if it has granitic magma? (*Hint: use SciNB p. 74-75*)

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➔**Lesson 3 Main Idea: Volcanic eruptions can change human and wildlife habitats.** Describe two hazards of volcanic eruptions. Why are they hazardous to humans?

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➔**Lesson 2 Main Idea: Heat can be distributed within the atmosphere.** How do convection currents distribute heat in the atmosphere?

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➔**Lesson 3 Main Idea: Solar energy is responsible for the continuous movement of air in the troposphere, which transports and distributes heat around Earth.** How is solar energy responsible for the trade winds? *(Hint: remember the relationship between latitude and the angle that the Sun's radiation (light) hits the Earth and the Three-Cell Model.)*

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**Chapter 10: Oceans**

➔**Lesson 1 Main Idea: Mapping the ocean floor is important to understanding Earth's global features.** Why could it be important to identify the location of deep ocean trenches?

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➔**Lesson 2 Main Idea: Ocean currents help distribute heat around Earth.** A deep ocean current flows from the North Atlantic ocean to warmer waters in the Atlantic Ocean. What causes this current to flow?

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➔**Lesson 3 Main Idea: The shore is shaped by the movement of water and sand.** How do breakwaters and groins protect buildings near the ocean?

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➔**Lesson 4 Main Idea: Geology and ocean currents influence life in California.** How do geology and ocean conditions influence the marine life near the California coast?

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**Chapter 11: Weather & Climate**

➔**Lesson 1 Main Idea: Weather describes the atmospheric conditions of a place at a particular time.** What is dew point, and what is its relationship to humidity?

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➔**Lesson 2 Main Idea: Several factors, such as differences in pressure, heat, air movement, and humidity drive changes in the weather.** What are the two types of weather fronts, and how do they form?

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➔**Lesson 3 Main Idea: The climate of a region is often defined by annual temperatures and precipitation amounts.** How is California's climate affected by the climate controls listed below?

➔**Lesson 4 Main Idea: California's climate is primarily mediterranean and highland.** What are the characteristics of a mediterranean climate?

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Climate Controls	Precipitation	Temperature
Latitude		
Proximity of land to water		
Ocean currents		
Prevailing winds		
Location of mountains		
Human influences on climate		

**chapter 12: Ecological Roles**

**➔Lesson 1 Main Idea: Living things and nonliving factors, such as air, water, sunlight, and soil, interact in Earth's ecosystems. How do living things affect air?**

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**➔Lesson 2 Main Idea: Climates and the types of life they support define biomes on Earth. Ecological roles are the same in different biomes, but may be filled by different species. In what ways are California's temperate deciduous forests similar to and different from tropical rain forests?**

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**Chapter 13: Energy and Matter in Ecosystems**

**➔Lesson 1 Main Idea: Producers make their own food, mostly using energy from the Sun. All other organisms depend on producers as their energy source. Why are decomposers important for the movement of energy in an ecosystem?**

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**➔Lesson 2 Main Idea: Energy flows through ecosystems, from producers to consumers and decomposers. Why do energy pyramids get smaller at each higher level?**

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➔**Lesson 3 Main Idea: Matter cycles in ecosystems.** Why is the decay of organisms an important part of the carbon, nitrogen, and phosphorus cycles?

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**Chapter 14: Resources**

➔**Chapter 14 - Lesson 1 Main Idea: People use a variety of materials from different parts of Earth to meet a diverse range of needs.** Describe two ways that nonrenewable resources are used. Describe two ways that renewable resources are used.

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➔**Lesson 2 Main Idea: Some of Earth's natural resources can be used directly or indirectly for energy, usually through conversion to electricity.** What natural resource is used most to generate electricity in the United States? Is it renewable or nonrenewable? What are two alternate forms of energy used to generate electricity?

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➔**Lesson 3 Main Idea: Conserving resources can help prevent shortages and reduce pollution.** What is resource conservation? What are three ways you can conserve energy in your daily life?

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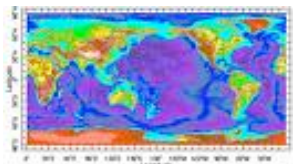
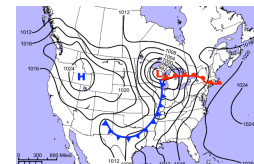


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**Making this semester's topics useful outside of the classroom:**

A. What are four landforms should you avoid when selecting a location for a home in California? How or why can they cause geological hazards?

<b>Describe landform or location.</b>	1	2	3	4
<b>What it looks like (illustrate)?</b>				
<b>How or why is it a hazard?</b>				

B. Scientists use a variety of maps to represent the Earth.

<b>Type of Map</b>	1 _____ metric maps	2. Air Pressure Maps	3. Map of Faults	4. Map of Ocean C_____s
<b>What it looks like (illustrate)?</b>				
<b>In Textbook</b>	TB p. _____	TB p. _____	TB p. _____	TB p. 448
<b>How is it used in Science or real world?</b>				

C. Describe 3 ways energy and heat is transfered & where it occurs on Earth or in the Universe. (see SciNB p. 100)

R_____ -	C_____ -	<b>Convection</b> - Heat transfers in fluids (like the mantle, atmosphere) moving particles in a convection current.
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