

7th Grade Science Final Review

Energy and Waves Unit

1. What is energy?

2. What is a wave?

3. Why does a wave passing through the water not carry an inner tube away?

4. How are waves created?

5. What is a seismic wave?

6. What is a medium?

7. What kind of wave is a sound wave? Draw it.

8. What kind of wave is a light wave? Draw it.

9. How does the sun produce energy?

10. What types of energy does the sun produce?

11. What is nuclear fusion?

12. How much of the sun's light reaches the Earth?

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Matter Unit

1. Matter is made of _____.
2. What are phase changes? Are they a physical or chemical change?

3. What is the Law of Conservation of Matter (in terms of chemical reactions?)

4. Give 3 examples of a chemical change.

5. On the pH scale, which substances register 0 - <7? _____
6. Which substances register from >7-14 _____
7. What are substances that = 7 called? _____
8. Arrange the following properties into the correct category:
Color, mass, flammability, density, pH (acidity), reactivity, boiling point, freezing point
physical property chemical property
9. Describe at least 5 types of evidence that a chemical change has taken place:

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Photosynthesis

1. Plants use energy from _____ to make food.
2. Which type of energy transformation occurs during photosynthesis?

3. What are the reactants in photosynthesis? _____
4. What are the products? _____
5. What is the glucose used for? _____
6. What other materials does a plant make using glucose?

7. What evidence proves that plants make their own food using sunlight, carbon dioxide and water?

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Cells and Heredity

1. What are all living things made out of? _____

2. What is the organization of living things, from simple to complex?

3. What is a tissue?

4. What is an organ? _____

5. What is a specialized cell? What kinds of organisms contain specialized cells?

6. What kinds of things do all cells have in common?

7. How do single-celled organisms grow?

8. How do multi-celled organisms grow?

9. What are genes?

10. How many chromosomes does each parent contribute to the offspring in sexual reproduction?

11. What are the advantages of sexual reproduction?

12. What are the advantages of asexual reproduction?

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Atmosphere, Water Cycle, Weather and Climate Unit

1. How much of Earth's water is salty? _____ Fresh? _____
2. In what form is most of Earth's fresh water found? _____
3. What is the Water Cycle?

4. What is the atmosphere?

5. What is the most abundant gas in the atmosphere? _____
(abundant: *adjective*- existing or available in large quantities; plentiful)
6. Second most abundant? _____
7. Explain how convection causes movement of air in the atmosphere.

8. What weather conditions are associated with a cold front?

9. What weather conditions are associated with a warm front?

10. What is the cause of all of earth's wind, precipitation, air and ocean currents and all other weather phenomena? _____
11. How is climate different from weather?

12. How does the ocean affect climates?

