

Important Concepts . . .

Preview Review



Science

Grade 9

W3 - Quiz

Important Concepts of Grade 9 Science

W1 - Lesson 1	Electrical Principles
W1 - Lesson 2	Electrical Circuits
W1 - Lesson 3A	Energy Consumption
W1 - Lesson 3B	The Distribution of Matter in Space
W1 - Lesson 4	Objects in Space
W1 - Lesson 5	Optical and Radio Telescopes
W1- Quiz	
W2 - Lesson 1	Physical and Chemical Properties of Materials
W2 - Lesson 2	Chemical Reactions
W2 - Lesson 3	Using the Periodic Table
W2 - Lesson 4	Naming Chemical Compounds
W2 - Lesson 5	Writing Chemical Equations
W2 - Quiz	
W3 - Lesson 1	Variation
W3 - Lesson 2	Reproduction and Patterns of Inheritance
W3 - Lesson 3A	Genes and Cell Division
W3 - Lesson 3B	Organisms and Matter in their Environment
W3 - Lesson 4	Biological and Chemical Monitoring/Acids and Bases
W3 - Lesson 5	Transfer of Materials through the Air, Ground, and Water/Biological Impacts of Hazardous Chemicals
W3 - Quiz	

Materials Required

Textbook:
Science in Action 9

Science Grade 9
Version 5
Preview/Review W3 - Quiz

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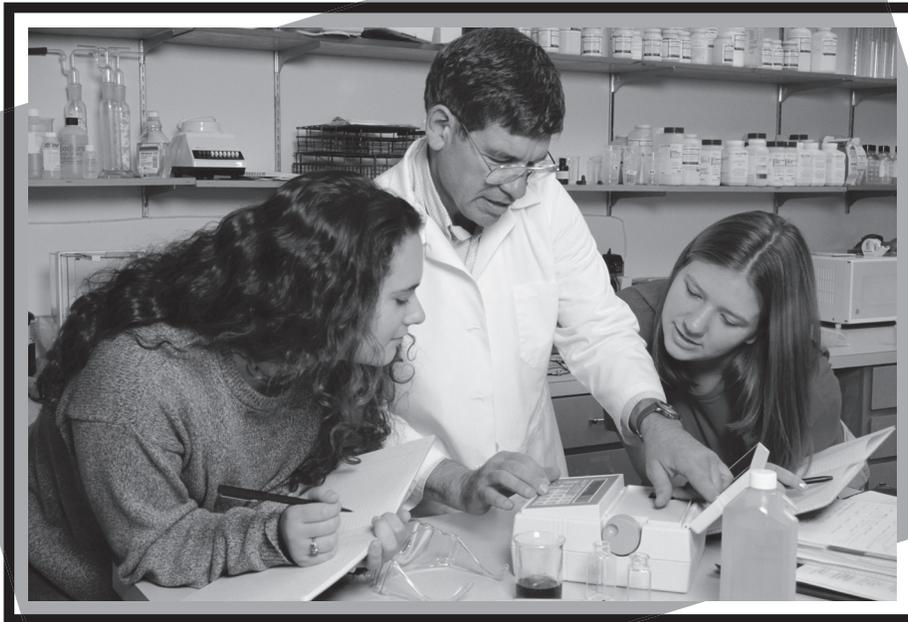
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Preview/Review Concepts for Grade Nine Science



W3 - Quiz

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/ 30 marks

This quiz should take approximately 20 minutes to complete.

Part I: Multiple Choice

Place the letter of the best answer in the blank before each question. (5 marks)

- _____ 1. A group of individuals of the same species that live in a certain place is a
- A. community
 - B. ecosystem
 - C. population
 - D. niche
- _____ 2. Bacteria split exactly in two during this asexual reproductive process called
- A. budding
 - B. spore production
 - C. vegetative reproduction
 - D. binary fission
- _____ 3. Spaghetti is classified as a type of nutrient called
- A. protein
 - B. carbohydrate
 - C. lipid
 - D. nucleic acid
- _____ 4. The movement of water from a high concentration to a low concentration across a semipermeable membrane is known as
- A. diffusion
 - B. osmosis
 - C. active transport
 - D. intake
- _____ 5. An increase in concentration of a chemical as it moves up the food chain is called
- A. photolysis
 - B. decomposition
 - C. contamination
 - D. biomagnification

Part II: Matching

Match the following words to their definitions. (8 marks)

Words

- A. continuous variation
- B. discrete variation
- C. artificial selection
- D. active transport
- E. organic compound
- F. inorganic compound
- G. chromosome
- H. gene
- I. macronutrient
- J. micronutrient
- K. purebred
- L. dispersion

Definitions

- _____ structure in which DNA is arranged and along which genes are located
- _____ nutrients that organisms need in large amounts
- _____ a complex molecule that contains carbon
- _____ the movement of molecules from a low concentration to a high concentration requiring the addition of energy
- _____ the scattering of a substance away from its source
- _____ a plant or animal that has ancestors with the same form of a trait
- _____ differences in characteristics that have a range of form (for example, height of adults)
- _____ the process in which humans select individuals to reproduce

Part III: Written Response

1. State one main purpose of asexual reproduction and one of sexual reproduction. Name one type of sexual and one type of of asexual reproduction. (4 marks)

2. How many chromosomes do humans have in each cell in their bodies? Where did these chromosomes come from? (2 marks)

3. Body builders must eat the right kind of nutrient to build muscle. What type of nutrient do they have to eat? (1 mark)

Give an example of a food that contains this nutrient. (1 mark)

4. Identify two factors that determine whether or not an airborne pollutant is found five miles from the source or 100 miles from the source. (2 marks)

5. Answer the following questions dealing with acids.

- a. Explain how you could identify if a solution was an acid by using litmus paper. (1 mark)

- b. What is the pH of an acid? Give an example of a common household substance that is acidic. (1 mark)

- c. How can an acid can be neutralized? (1 mark)

- d. Identify one end product of the reaction of an acid and a base. (1 mark)

6. Explain briefly how the addition of fertilizers to a lake can contribute to the winterkill of fish. (3 marks)
