

## Skills Worksheet

**Concept Review**

**In the space provided, write the letter of the description that best matches the term or phrase.**

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|-------------------------------|--|
| _____ 1. hypothesis           | a. process of obtaining information by using the senses  |
| _____ 2. theory               | b. process by which experts in a field examine another expert's work prior to publication                                    |
| _____ 3. geology              | c. scientific study of the oceans  |
| _____ 4. independent variable | d. explanation that is based on observations and that can be tested  |
| _____ 5. dependent variable   | e. factor that is manipulated in an experiment   |
| _____ 6. astronomy            | f. scientific study of the universe  |
| _____ 7. meteorology          | g. factor in an experiment that changes as a result of changes in other factors  |
| _____ 8. oceanography         | h. scientific study of Earth's atmosphere  |
| _____ 9. observation          | i. scientific study of the origin, history, and structure of Earth   |
| _____ 10. peer review         | j. explanation of a phenomenon based on observation, experimentation, and reasoning; supported by a large amount of evidence |

**In the space provided, write the letter of the answer choice that best completes each statement or best answers each question.**

- \_\_\_\_\_ 11. How does science differ from art, architecture, and philosophy?
- a. The goal of science is human endeavor.
  - b. Science takes more mental energy.
  - c. Science is the same as these other endeavors.
  - d. The goal of science is to explain natural phenomena.
- \_\_\_\_\_ 12. In their scientific study of Earth, what did the ancient Chinese do?
- a. record time
  - b. keep accurate records of births and deaths
  - c. keep records of earthquakes
  - d. invent electricity

**Concept Review** *continued*

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- \_\_\_\_\_ 13. What is Earth science?
- a. the scientific study of chemical mixtures
  - b. the scientific study of Earth and the universe around it
  - c. the scientific study of animal behavior
  - d. the scientific study of life on Earth
- \_\_\_\_\_ 14. In the scientific process, forming a hypothesis is often immediately followed by what step?
- a. publishing the results in a scientific journal
  - b. conducting a peer review of the hypothesis
  - c. testing the hypothesis by conducting an experiment
  - d. drawing conclusions about the hypothesis
- \_\_\_\_\_ 15. Which of the following is true about the impact of science on society?
- a. New technology created by science sometimes causes problems.
  - b. The impact of science on society is always positive.
  - c. Scientific knowledge does not help us understand our world.
  - d. Science never has any impact on society.
- \_\_\_\_\_ 16. If experimental results do not support a hypothesis, what may happen?
- a. The hypothesis will become a theory.
  - b. The hypothesis may be changed or discarded.
  - c. The hypothesis will be published in a scientific journal.
  - d. The scientist who developed it may resign his position.
- \_\_\_\_\_ 17. What area of Earth science is likely to involve the study of climate?
- a. geology
  - b. biology
  - c. astrology
  - d. meteorology
- \_\_\_\_\_ 18. By tracking celestial movements, the ancient Maya were able to
- a. create accurate calendars.
  - b. invent astrology.
  - c. develop the scientific process.
  - d. figure out geometry.
- \_\_\_\_\_ 19. What do scientists use to simulate conditions in the natural world?
- a. trial and error
  - b. conceptual and physical models
  - c. geology and meteorology
  - d. books and records
- \_\_\_\_\_ 20. Scientific measurement is based on
- a. precision and accuracy.
  - b. climate and weather conditions.
  - c. independent and dependent variables.
  - d. trial and error.