

Name: \_\_\_\_\_ Date: \_\_\_\_\_

## Answer Key: Crack the Code of the Natural World: A 4th Grade Science Quest

Learners strengthen their ability to categorize scientific phenomena by analyzing real-world scenarios across the various domains of scientific inquiry.

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**1. An engineer is testing a new magnet to see if it can lift heavy scrap metal. Which branch of science is most focused on the forces of magnetism and motion?**

**Answer:** B) Physics

Physics is the study of matter, energy, and forces like magnetism and gravity.

**2. A scientist who spends their day identifying different types of minerals and studying how mountains form is working in the field of \_\_\_\_\_.**

**Answer:** C) Earth Science

Earth Science involves the study of the solid Earth, including rocks, minerals, and landforms.

**3. True or False: A scientist studying how a honeybee colony survives the winter is practicing Biology.**

**Answer:** A) True

Biology is the branch of science dedicated to the study of living organisms and their life processes.

**4. If you are trying to figure out why a new type of plastic melts at a certain temperature, you are investigating the properties of matter. What branch is this?**

**Answer:** B) Chemistry

Chemistry focuses on what substances are made of and how they change or react to things like heat.

**5. To understand how the rings of Saturn were formed, a scientist would use the tools and knowledge of \_\_\_\_\_.**

**Answer:** A) Astronomy

Astronomy is the study of celestial bodies like planets, stars, and galaxies beyond Earth's atmosphere.

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**6. True or False: An Environmental Scientist would be the best person to consult if a city wanted to reduce the amount of trash ending up in the ocean.**

**Answer:** A) True

Environmental Science focuses on how humans impact the natural world and finding solutions to pollution.

**7. Zora is watching the clouds to predict whether a thunderstorm will happen this afternoon. Which specific area of Earth Science is she using?**

**Answer:** B) Meteorology

Meteorology is a branch of Earth Science that deals specifically with the atmosphere and weather patterns.

**8. A team discovers a dinosaur bone buried deep in the desert. They are using \_\_\_\_\_ to understand life from millions of years ago.**

**Answer:** C) Biology

Even though it focuses on the past, studying ancient life (Paleontology) is a specialized part of Biology.

**9. True or False: Physics is the branch of science that explains why your bike slows down when you stop pedaling due to friction.**

**Answer:** A) True

Physics explains the laws of motion and the forces, like friction, that affect how objects move.

**10. When a scientist mixes two clear liquids and they suddenly turn bright blue, they are most likely observing a reaction in which field?**

**Answer:** C) Chemistry

Chemical reactions and changes in color during an experiment are classic examples of Chemistry in action.