

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

## Interdisciplinary Investigator: A 4th Grade Branches of Science Quest

Can you determine which expert to call for a melting glacier or a failing satellite? Analyze complex scenarios to categorize scientific fields.

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**1. An oceanographer is studying how the saltiness of the Atlantic Ocean changes when massive icebergs melt. This scientist is combining which two major branches of science?**

- A. Physics and Astronomy
- B. Earth Science and Chemistry
- C. Biology and Environmental Science
- D. Physics and Biology

**2. If an engineer is designing a new high-speed train that uses magnets to float above the tracks, they are primarily applying the laws of \_\_\_\_.**

- A. Biology
- B. Astronomy
- C. Physics
- D. Earth Science

**3. True or False: A scientist who spends their career studying the ancient soil and rock layers on the planet Mars is working in both Earth Science and Astronomy.**

- A. True
- B. False

**4. A team of researchers is investigating why a specific type of honeybee is disappearing in the Midwest. They look at the bees' health and the pesticides used on local farms. Which branch is their focus?**

- A. Physics
- B. Environmental Science
- C. Astronomy
- D. Chemistry

**5. A paleobotanist finds a fossilized leaf from millions of years ago. To understand how the plant lived, they use \_\_\_\_, but to understand the rock it was found in, they use Earth Science.**

- A. Biology
- B. Physics
- C. Astronomy
- D. Chemistry

**6. Which of these scenarios would require a Chemist's expertise to evaluate a potential solution?**

- A. Predicting the path of a hurricane using satellite data.
- B. Creating a new plastic that dissolves safely in water.

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- C. Counting the population of caribou in the Arctic.
- D. Measuring the distance between two distant galaxies.

**7. True or False: Because the Sun is a star, the study of how solar flares affect Earth's power grids is only considered Physics and has nothing to do with Astronomy.**

- A. True
- B. False

**8. Imagine a bridge collapses because the steel beams became brittle in the cold. To prevent this in the future, which two types of scientists should work together?**

- A. Biologists and Astronomers
- B. Meteorologists (Earth Science) and Chemists
- C. Chemists and Physicists
- D. Zoologists and Earth Scientists

**9. A scientist studying the digestive system of a deep-sea giant squid is working in the branch of \_\_\_\_.**

- A. Earth Science
- B. Chemistry
- C. Biology
- D. Physics

**10. True or False: Environmental Science is unique because it often combines data from Biology, Chemistry, and Earth Science to solve problems.**

- A. True
- B. False