

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

## Answer Key: Science Sorter: Picking Your Specialty Quiz (8th Grade)

Classification skills, interdisciplinary connections, and field identification. Perfect for a middle school science careers unit or an introductory diagnostic tool.

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**1. A scientist is studying how the tectonic plates under the Pacific Ocean move. Which branch of science is the primary focus of this research?**

**Answer:** C) Earth Science

Earth Science (or Geoscience) focuses on the physical systems of our planet, including lithospheric plate movements and seismology.

**2. Physics is the study of how living organisms grow and adapt to their environments.**

**Answer:** B) False

The study of living organisms and their adaptations is Biology. Physics deals with matter, energy, and forces.

**3. The branch of science that investigates the atomic composition of substances and how they react with one another is known as \_\_\_\_\_.**

**Answer:** B) Chemistry

Chemistry is defined as the study of matter at the molecular and atomic levels, specifically focusing on chemical reactions and bonding.

**4. If a researcher is analyzing high-speed photos of a soccer ball to determine its acceleration and velocity, they are working within which field?**

**Answer:** A) Physics

Physics involves the study of motion, forces, and energy, making it the correct field for calculating velocity and acceleration.

**5. A scientist using a rover to search for signs of ancient water on Mars is primarily practicing the branch of \_\_\_\_\_.**

**Answer:** D) Astronomy

Astronomy focuses on objects and phenomena outside of Earth's atmosphere, including planetary exploration.

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**6. Environmental Science often combines knowledge from multiple branches like biology and earth science to solve problems.**

**Answer:** A) True

Environmental science is interdisciplinary, meaning it draws from several different fields to understand human impact on the planet.

**7. Which of these topics would fall under the category of Biology?**

**Answer:** B) The way cellular respiration provides energy to cells

Biology is the study of life; cellular respiration is a vital biological process that occurs in living organisms.

**8. The study of the atmosphere and weather forecasting is a specialized part of Earth Science known as \_\_\_\_\_.**

**Answer:** A) Meteorology

Meteorology is the specific branch of Earth Science concerned with the processes and phenomena of the atmosphere.

**9. A chemist would likely be the person to design a more efficient battery for electric cars.**

**Answer:** A) True

Batteries rely on chemical reactions (electrochemistry) to store and release energy, so Chemists are essential in their design.

**10. Which branch of science would be most concerned with how a solar flare might disrupt satellite communications on Earth?**

**Answer:** D) Astronomy

Astronomy deals with solar activities and celestial events that originate outside our planet's atmosphere.