CHAPTER-6 | The Making of a Scientist

QUIZ-01

1. What marked the beginning of Richard Ebright's journey into the world of science?
   A. His school science fair
   B. Collecting rocks and fossils
   C. Reading The Travels of Monarch X
   D. Observing stars with a telescope (C)

Explanation : The Travels of Monarch X inspired Ebright to explore butterfly migrations, sparking his interest in science and experiments.

2. How did Richard Ebright's mother support his scientific curiosity?
   A. By enrolling him in science fairs
   B. By providing tools and equipment for learning
   C. By taking him to scientific conferences
   D. By introducing him to famous scientists (B)

Explanation : Ebright's mother provided telescopes, microscopes, and books, fostering his passion for learning and scientific exploration.

3. What was the purpose of tagging butterflies in Ebright's early experiments?
   A. To identify their habitats
   B. To study butterfly diseases
   C. To understand butterfly migration patterns
   D. To test the effects of insect hormones (C)

Explanation : Tagging butterflies was part of a study on monarch butterfly migration, guided by Dr. Urquhart's research initiative.

4. Why did Ebright feel disappointed at his first science fair?
   A. His display was not neat enough
   B. He didn't perform a real experiment
   C. His slides of frog tissues were incorrect
   D. He didn't collect enough data (B)

Explanation : Ebright realized that the winners conducted real experiments, unlike his display of frog tissue slides under a microscope.

5. What was the focus of Ebright's eighth-grade science project?
   A. Tagging monarch butterflies
   B. Investigating a disease affecting monarch caterpillars
   C. Testing the chemical structure of hormones
   D. Comparing monarchs and viceroys (B)

Explanation : His project explored a viral disease affecting monarch caterpillars, demonstrating his commitment to real scientific experimentation.

6. What did Ebright discover about the gold spots on a monarch pupa?
   A. They were ornamental
   B. They served as a defense mechanism
   C. They produced a hormone vital for development
   D. They helped monarchs migrate (C)

Explanation : Ebright's research proved that the gold spots secreted a hormone crucial for the butterfly's full development.

7. What significant discovery did Ebright make during his junior year in college?
   A. The process of DNA fingerprinting
   B. A theory on how cells read DNA blueprints
   C. The lifecycle of monarch butterflies
   D. The cure for butterfly viral diseases (B)

Explanation : Ebright's observations of X-ray photos, combined with earlier findings, led to a groundbreaking theory on cell function.

8. What qualities does the chapter suggest are essential for becoming a scientist?
   A. Intelligence, curiosity, and will to win for the right reasons
   B. Hard work, competitiveness, and academic excellence
   C. Observational skills, patience, and mentorship
   D. Passion, persistence, and creativity (A)

Explanation : Ebright's success was attributed to his intellect, curiosity, and desire to achieve for the right reasons, as highlighted in the chapter.

9. What was the conclusion of Ebright's project on viceroy butterflies?
   A. Viceroys taste better than monarchs
   B. Birds avoid viceroys due to their resemblance to monarchs
   C. Monarchs copy viceroy butterflies for protection
   D. Viceroys and monarchs have the same taste to birds (B)

Explanation : Ebright confirmed the theory that viceroys mimic monarchs to avoid predation by birds.

10. How did Richard Ebright balance his scientific pursuits with other activities?
    A. He avoided extracurricular activities
    B. He excelled in debating, photography, and outdoor sports
    C. He focused entirely on academics
    D. He devoted all his time to experiments (B)

Explanation : Alongside his scientific endeavors, Ebright was an accomplished debater, photographer, and outdoorsman, demonstrating a well-rounded personality.