

St. Andrews Scots Sr. Sec. School

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Session: 2024-2025 – Notes

Class: X

Subject: English

Topic: The Making of a Scientist

Answer the following questions:

Q1. What lesson does Ebright learn when he does not win anything at a science fair?

Ans. Ebright exhibited slides of frog tissues at a science fair. He did not get any prize. He learnt an important lesson that science is not just about display. It is about projects and experiments. He began conducting experiments from that day onwards.

Q2. What are the qualities that go into the making of a scientist?

Ans. There are three essential qualities that make a scientist. The first is a first rate mind. Next is the presence of curiosity. Last but not the least, it is the will to do the best and win.

Q3. "Science shows a connection between structure and function." Show this to be so, for the spots Ebright saw on Monarch pupas.

Ans. Ebright grew cells from a monarch's wing to show that cells could divide and develop into a normal butterfly wing scales only if they were fed with the hormones from the gold spots. Later, he identified the chemical structure of the hormone and found how cells can read the blueprints of its DNA.

Q4. Mention any two of Ebright's contributions to the world of science.

Ans. He carried experiments to prove successfully that hormone produced by the gold spots of a pupa is responsible for the growth and formation of butterfly wings. He also discovered how a cell could read the blueprint of its DNA that controls heredity.

Q5. The will to win, for the right reasons, was a quality that Richard had. Do you think this quality alone can help us accomplish great feats? Why/Why not?

Ans. Learning was easy for Ebright. He found it simple to devote time and energy to many other interests. He became a champion in whatever he did. He believed in the spirit of competition to win. But he did not wish to defeat others just to win. He wanted to win to do his best.

Q6. Albert Einstein said, "The important thing is to never stop questioning." Richard was a genius who proved this quote true, Justify.

Ans. Richard Ebright was a curious child right from the beginning years of his life. His curiosity prompted him to collect rocks, fossils, coins and butterflies. He was competitive but in a good sense and always wanted to do his best. His mother also encouraged his interest in learning. He faced many failures in his life but every failure strengthened his will to succeed. Ebright worked sincerely on every science project he got every year in school. He looked to Dr Urquhart for new ideas and suggestions. He gave him a number of suggestions for experiments. Continuous research and experiments won Ebright great honours and prizes.



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