6. The Making Of a Scientist ( Footprints without Feet)

Q1: How did a book become a turning point in Richard Ebright’s life?

A: Richard Ebright was interested in collecting butterflies. By the time he was in the second grade, he had collected all the twenty-five species of butterflies found around his hometown. This would have been the end of his butterfly collecting . But at this point his mother got him a book called “ The Travels of Monarch X”. Hr came to know about the migration of monarch butterflies to Central America through this book. Then his interest was aroused in Monarch butterflies and opened the world of science to him. This proved to be turning point in the life of young Richard Ebright. He began to raise Monarch butterflies in the basement of his home, and study them in different stages of their development.

Q2: How did his mother help him?

His mother encouraged his interest in learning. She took him on trips, bought him telescopes, microscopes, cameras, mounting materials and other equipments, and helped him in many other ways. If he didn’t have anything to do, she found things for him to learn. Even the book that became a turning point in his life was given to him by his mother. So, it can be said that his mother played an important role in making of the scientist.

Q3: What lesson does Ebright learn when he does not win anything at a science fair?

A: Ebright realizes that mere display of something does not mean science. To win at a science fair he will have to do real experiments.

Q4: What experiments and projects does he then undertake?

A:He makes experiments to find out what causes the viral diseases that kills nearly all monarch caterpillars. He undertakes a project to test the theory that viceroy butterflies copy monarchs to survive.

Q5: What are the qualities that go into the making of a scientist?

A: The author mentions three qualities that go into the making of a scientist—a first rate mind, curiosity, and the will to win for the right reasons. Richard Ebright was a very intelligent student. He was also a champion debater, a public speaker, a good canoeist and an expert photographer. He always that extra effort. He was competitive, but for the right reasons. From the first he had a driving curiosity that ultimately led him to his theory about cell life.

Q6; how can one become a scientist, an economist, a historian…? Does it simply involve reading many books on the subject? Does it involve observing, thinking and doing experiments?

A: Reading books is just one aspect of learning. This is an exercise in information gathering. It is how your brain processes the information that affects the degree of learning. The first and the foremost criteria to become a genius in one’s chosen field is to have great curiosity and unending hunger to discover more. Next criteria is a good sense of observation which helps to correlate findings with what seen or experienced in the real world. Experiments are must to test your findings against possible variables and in real life situations. And last, but not the least criteria is an urge to work really hard on the area of interest.