

## Class 10, English Supp. Book

### Ch. 6 - The Making of a Scientist

By- Robert W. Peterson

#### Question and Answers:

Q1) How did a book become a turning point in Richard Ebright's life?

Ans) After Richard had collected all the 25 species of butterflies that were found in his surroundings, he thought that it would be an end to butterfly collection when his mom bought him a book named 'Travels of Monarch X' which told him about how butterflies migrated to Central America. This book aroused an interest in him for exploring more of what was to come and started studying more about monarch butterflies.

Q2) How did his mother help him?

Ans) His mother played a turning role in the life of the scientist as she used to buy him telescopes, microscopes, cameras, mounting equipment and used to try to help him by getting him things to learn in the evening when he used to be free. She also used to take him out on field trips and the book Travels of Monarch X was also bought by her. So we can say that the mother played a very important role in the making of what he was.

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

Ans) He learnt that just by showing neat and clean simple slides won't make him win anything but the actual experiment that he will perform will help him win the prize at any fair.

Q4) What experiments and projects does he then undertake?

Ans) He did an experiment to see the cause of the viral disease that kills nearly all the monarchs after a few years and also took up a project to prove that the viceroy butterflies copy monarchs to survive by behaving like them.

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

Ans) According to the chapter, there are three qualities that a person needs to have to be a scientist. Firstly, a first - rated mind, secondly, curiosity and thirdly, the will to win for the right reasons.

#### **EXTRA Short Answer Type Questions [2 Marks each]**

##### **Question 1.**

What rare achievement did Richard manage at the age of twenty-two?

##### **Answer:**

Richard had a rare honour at the age of twenty-two. He wrote an article with his friend about a theory of how cells work. The article was published in the scientific journal 'Proceedings of the National Academy of Science.' No one had this achievement at such a young age before him.

**Question 2.**

Richard became a collector at an early age. How?

**Answer:**

Richard was the only child of his parents. He had no company at home to play with. So, he started collecting things in his spare time. He would collect coins, fossils, rocks and butterflies as a hobby.

**Question 3.**

Comment on the role played by Richard's mother in his success.

Or

How did Ebright's mother help him in becoming a scientist? [CBSE 2015]

**Answer:**

Richard's mother made Richard the centre of her life. She would buy microscopes, telescopes and books for him. She arranged trips for him and would also prepare difficult tasks for him. This helped him to learn a lot.

**Question 4.**

How did 'The Travels of Monarch X' prove a turning point in his life?

**Answer:**

Richard was bored with collecting butterflies. At this time, his mother got the book 'The Travels of Monarch X' for him. After reading the book, he studied the migration of butterflies and it opened the world of science to him.

**Question 5.**

Why did Richard lose interest in tagging butterflies?

**Answer:**

Richard raised thousands of butterflies, tagged them and released them to study their migration. But soon, he lost interest because only two of his tagged butterflies were returned to him and they had travelled only seventy-five miles.

**Question 6.**

Which project did Richard undertake in the eighth grade?

**Answer:**

Richard undertook the project to find the cause of a viral fever that had killed thousands of butterflies. He thought that a beetle might carry the virus although he was not able to prove it.

**Question 7.**

Richard's project on the purpose of the twelve tiny gold spots on a monarch pupa was highly valuable in two ways. List the two ways.

**Answer:**

This project had a huge impact. First, he discovered a hormone that was necessary for the growth of the pupa. Secondly, he got a chance to work at a famous laboratory.

**Question 8.**

Mention any two of Ebright's contributions to the world of science. [CBSE 2011]

**Answer:**

Ebright discovered a hormone that was necessary for the growth of a butterfly. His other important contribution proved to be his study of how cells read their DNA.

### Question 9.

In addition to science, what were the other interests of Richard?

#### Answer:

A part from science, Richard was a good debater and a public speaker as well as a canoeist and an all-round outdoors person. He loved photography as well.

### Question 10.

Mr. Weiherer pays a glowing tribute to Richard. What did he say?

#### Answer:

Mr. Weiherer was Ebright's social studies teacher. He praised him for his brilliant mind, his curiosity and a will to win for the right reason. He also admired Richard for his spirit to do his very best all the time.

### Question 11.

Why do viceroy butterflies copy the monarch butterflies?

#### Answer:

Birds eat viceroy butterflies because they taste good to them, whereas monarch butterflies do not taste good to the birds. So the viceroys try to copy the monarchs to protect themselves from the birds.

### Question 12.

Hobbies play a very important role in one's life; elaborate this with reference to "The Making of a Scientist". [CBSE 2016]

#### Answer:

Richard Ebright started collecting butterflies as a hobby. This led him to research and discover many things. Hence, hobbies play an important role in one's life.

### Question 13.

What were the factors which contributed in making Ebright a scientist? [CBSE 2014]

#### Answer:

Three qualities of Ebright which contributed were a first rate mind, a sense of curiosity and a will to win for the right reason.

## EXTRA Long Answer (Value Based) Type Questions [8 Marks each]

### Question 1.

Richard's mother had a great influence on him. Discuss.

Or

Discuss the role of Ebright's mother in making him a scientist. [CBSE 2011]

#### Answer:

Richard's mother played a huge role in making him a great scientist. She would take him on trips to encourage learning. He was a single child. After his father died, his mother made him the focus of her life. She would buy him all kinds of microscopes, telescopes and other equipment. After dinner, she gave him problems to solve. This helped Richard to learn a lot. She was his only companion for a long time. It was his mother who got him the book 'The Travels of Monarch X'. This book opened the world of science for Richard. She also wrote to Dr Urquhart to guide her son. The scientist helped Richard and guided him. Thus, his mother actually shaped him into an extraordinary scientist.

### Question 2.

Ebright's study of monarch pupas had a far reaching impact. Elaborate.

**Answer:**

For a long time the scientific community had regarded the bright spots on a monarch pupa as purely ornamental. But Dr Urquhart did not believe it. Nor did Richard. He started his experiments on the monarch pupa. He built a device with the help of a friend. This led to the discovery of a hormone. Richard proved that the hormone was necessary for the growth of the butterfly. This discovery got him many honours. Also, it led to another important study. He began working on how cells read their DNA. DNA is the carrier of heredity and is called the blueprint of life. His theory could find answers to many cancers and diseases.

**Question 3.**

Richard Ebright displayed a well-rounded personality. Do you agree? Elucidate in the context of the given text. **[CBSE 2016]**

**Answer:**

Richard's genius was obvious by the time he was in his second grade. He managed to collect all twenty-five species of butterflies around his hometown and classify them. He also loved to collect coins, fossils and rocks. Science was not his only passion. He was an active member of his school's oratory club and model United Nations club and was an effective debater and a public speaker. He loved photography as well.

He was an enthusiastic canoeist and an all-around outdoors person. Learning was easy for him. So 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. Thus, he displayed a well-tounded personality.

**Question 4.**

Dr Urquhart contributed significantly to Ebright's growth as a scientist. Explain

**Answer:**

Richard had become bored with collecting butterflies. His mother got him a book on the migration of butterflies. Richard came in contact with Dr Urquhart through the book. Dr Urquhart directed him to study the migration pattern of butterflies.

When he did not win any prize in the science fair in seventh grade, he again wrote to Dr Urquhart to guide him. The scientist gave him many suggestions for new experiments. Richard performed these experiments throughout his high school and won many prizes. Later, he worked on why bright spots are found on a monarch pupa, motivated by Dr Urquhart. It led to the discovery of a new hormone. The discovery of this new hormone further led to an important theory. The theory was about how cells read their DNA. In this way Dr Urquhart proved to be his true mentor.

**Question 5.**

What are the values required to become a successful scientist like Richard Ebright? Elaborate with reference to the lesson 'The Making of a Scientist'.

**Answer:**

Curiosity to know more and a motivation to find reasons for existence of anything or any phenomena are necessary for becoming a successful scientist. The urge to know more develops the scientific aptitude in a person. At a very young age, Ebright became competitive by participating in various county fairs. He never lost hope and kept on trying to do better. In addition to curiosity and motivation, Ebright displayed the qualities of hard work, sincerity, determination and patience. He also accepted failure and success in the right spirit. Thus, he became a successful scientist.

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Trick questions stimulate the brain and provide fun. They help fill the time & provide relaxation. Additionally, trick questions give your brain a workout! Common sense and experience will not help you answer these tricky questions. Even though some of the answers are logical or rely on common sense, your first thought is quite often incorrect. Some trick questions are funny, some are a play on words, and some involve looking at things differently. Service of questions and answers for motorists. Questions on the topics: maintenance, operation, repair, breakdowns, selection and purchase of cars. I like that you can choose a car model and a category (engine, performance, tuning, engine oil, tra. Question and answer service for students. Not infrequently, on classical sites, questions and answers are asked to solve homework, well, just decide instead of you. Few people like this and therefore students do not receive help. 15 most common questions for entry level job interviews, plus 15 behavioral questions. Learn how to answer each question. Last updated on January 3rd, 2021 at 09:09 am. Following a recent study that reported on entry-level job interviews in ninety seven different corporations in the United States, we put together a list of fifteen most common interview questions, for the first rounds of interviews. We analyzed each question. We looked at it from the perspective of an employer, and a perspective of a job seeker. Questions and answers to chapter 4 study guides. Questions And Answers Great Gatsby Characters Friendship Behavior. Terms in this set (10). Add your own terms and definitions, questions and answers, and notes (whatever you are studying) to Quizlet to create a custom set. You can make your sets private or keep them public to share with others. Use images and audio. By preparing answers for these common interview questions, you can develop compelling talking points to make a great impression during your next job interview. In this article, we share some of the most commonly asked interview questions with tips on what interviewers are looking for in your response and example answers. Image description.