

# ENGLISH

## CHAPTER 10: THE COMET II



## THE COMET II

### ~Summary~

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The lesson "**The comet II**" is a continuation of "The comet I" written by Jayant Narlikar. The story of comet II focuses on Duttada's **superstitious** family and the precautions taken by global conference participants to avert the predicted destruction of the Earth due to Comet Dutta's impact.

After conversing with Mr. James Forsyth about stopping Comet Dutta from colliding with the Earth, Mr. John Macpherson, Defence Science Advisor, had scheduled a **world conference**. At that conference, scientists and experts **worldwide**, including Manoj Dutta (the discoverer of Comet Dutta), confirmed James' prediction regarding Comet Duttada's effects on Earth. When they (conference members) confirmed James' **prediction**, they discussed and suggested a solution to the Comet Dutta problem; that is, the conference had agreed to take a **deflective** measure against Comet Dutta.

The conference attendees proposed sending a spacecraft with a nuclear payload to encounter Comet Dutta and then remotely exploding the **spacecraft** at the precise moment they (Comet Dutta and the spacecraft) meet. The operation against Comet Dutta was called the '**Project Light Brigade**'. It was set to begin on October 9th to deflect Comet Dutta and prevent it from attacking the Earth on December 15th. The specifics of the conference were determined to be kept secret. During that period, Duttada and Sir John became good friends, and Sir John told Duttada that he would buy **Christmas** gifts only after December 15th, as it was the day Comet Dutta was predicted to collide with the Earth and he was not sure of the Light Brigade's success.

After a three-week stay in London, Duttada returned to **Kolkata** to find his family members planning a yajna to pacify Comet Dutta. Duttada's family believed that conducting such a **yajna** would calm down the comet and protect the Earth from its harmful effects. Duttada was furious with his family and refused to do yajna. His thoughts were entirely focused on the Project Light Brigade's outcomes. Playing with his grandson, **Khoka**, was his only form of relief.

Since his return from London, Duttada has been in contact with Sir John regularly. In the middle of October, he received a reply from Sir John stating that he felt confident in purchasing his Christmas gifts, **indicating** the Project Light Brigade's success.

And, as predicted, Comet Dutta passed close to the Earth on December 15th, but it went away without striking. **Indrani Debi** told Duttada that Comet Dutta had passed by without causing any harm to the Earth because of the yajna they had done. The story concludes with Duttada's perplexity over the wide gap between superstition and **science**.

### ~Conclusion~

The Comet – Part 2 illustrates the capabilities of human beings with a scientific mindset to think rationally and manage nature. However, it was difficult to remove the gap between rational and superstition as it is far more sinister and wider for anyone to eliminate. Presenting the CBSE Class 8 English It So Happened Prose Summary of The Comet – Part 2 that must have helped 8th standard students to have a comprehensive understanding of the chapter.

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## NCERT SOLUTIONS

### Questions (Page No. 83) (Comprehension Check - I)

Question 1. "For a moment James wondered if he had done his sums right." Why was James doubtful about his sums and calculations?

Answer: James was doubtful about his sums and calculations because when James looked up from his window a star-studded night sky, he knew somewhere amongst these stars was Comet Dutta that was heading for a collision with Earth. It was hard for him to believe the calamity of the future could have an impact on such a peaceful night.

Question 2. What did the scientists at the conference say about James's 'sums'?

Answer: The experts and scientists checked and rechecked James Forsyth's calculation with the latest observations of Comet Dutta. They found that his calculations and sums were correct that a comet might collide with Earth soon. However, there was a small chance that the comet might just graze the atmosphere of the Earth and not collide with it. But this slight intermission was not a reassurance for not taking an action.

Question 3. Immediate action was needed, the scientists decided. Give one example each of 'defensive' and 'offensive' action mentioned in the text.

Answer: The 'defensive' measures dismissed by the experts was to live in underground bunkers as it was not a practical proposition. The 'offensive' action was to marginally deflect Comet Dutta from its path by giving it a push. This could possibly be achieved by placing a nuclear payload in a spaceship and sending it to intercept the approaching comet and detonating it by using a remote control.

Question 4. "I am not buying any Christmas presents till December 15." What did Sir John mean by that?

Answer: When Sir John said that he was not buying any Christmas presents till December 15, he intended to mean that he was quite unsure about the success of this experiment. December 15 was the day the comet would hit the Earth and if the experiment failed, the comet would collide with Earth.

## Questions (Page No. 87) (Comprehension Check - II)

Question 1. What is Duttada expected to do on his return from London?

Answer: Upon his return from London, Duttada was expected to perform a shanti yagna to pacify the evil spirit behind the comet. This yagna was arranged by his wife, Indrani Debi who thought a yagna could help to minimize the evil effects of a comet on Earth and she had called the priests to bless her husband too.

Question 2. What is his reaction to the proposal?

Answer: Duttada reacted very angrily to the proposal of sitting on a yagna to fight the evil effects of a comet that is likely to collide with Earth. He simply remarked that it was a superstition and refused to perform the yagna meant to fight the ill-effects of a comet.

Question 3.

- a. What does 'Project Light Brigade' refer to?
- b. What does Sir John say about the Project in his letter to Duttada in October?

Answer:

- a. When the scientists in the secret conference were confident that Comet Dutta was likely to collide with Earth soon, they decided to join hands together to save the planet from it. 'Project Light Brigade' refers to the plan to deflect the comet's path by causing a nuclear explosion near it.
- b. In his letter to Duttada in October, Sir John mentioned that the 'Project Light Brigade' had begun its charge and they were hoping for the best. This meant that the spaceship with the nuclear payload was launched on time.

Question 4. Did Sir John buy Christmas presents on December 15? How did Duttada get to know about it?

Answer: Yes, Sir John bought Christmas presents on December 15. Duttada came to know about it from the urgent telex message sent by Sir John Macpherson on November 18. The letter mentioned that he was confident of buying his Christmas presents on December 15 which meant that 'Project Light Brigade' was indeed a successful operation that helped in averting Comet Dutta.

Question 5. Why, according to Indrani Debi, had the comet not been disastrous? Do you agree with her?

Answer: According to Indrani Debi, the comet had not proved to be disastrous because she felt the shanti yagna performed in her house was the ideal solution that helped in averting the comet's path from colliding with Earth.

No, I don't agree with her because her opinion was completely based on superstitions. As a matter of fact, it was the joint efforts of the scientists in the secret conference who chalked out a plan, the 'Project Light Brigade' to deflect the comet's path by causing a nuclear explosion near it. This experiment proved fruitful and helped in saving the Earth and all the people of the planet from a massive destruction.

Question 6. Is Duttada's general outlook

- a. rational?
- b. moral?
- c. traditional?

Choose the right word. Say why you think it right.

Answer: Duttada was a scientist with a rational and scientific outlook. As he observed stars and their movements, he was aware of what comets are composed of. He was fully aware that there is no connecting link between scientific reason such as appearance of comets and traditions or customs which define misfortunes of the Earth. Hence, he proved his point when he did not participate in the yagna.

## Questions (Page No. 88)

### (Exercise)

Discuss the following topics in small groups. Write your answers afterwards.

Question 1. Should a scientist's findings be suppressed if they seem disturbing? Give reasons for and against the topic.

Answer: No, a scientist's findings should never be suppressed or ignored because he/she tries to discover the truth behind unknown spatial objects through scientific reason and research. Nicolaus Copernicus was one such mathematician and astronomer. He created a model of the universe that placed the Sun rather than the Earth at the center of the universe, which finally proved to be correct. On the contrary, people in Galileo's time believed that the Earth was indeed at the center of the universe. They believed that the Sun and others planets revolved around it.

Question 2. Do you think ours is a traditional society? What are some of the things we do to be called traditional? Do you find these things useless or useful?

Answer: Yes, our society is still very traditional and conservative, despite the great advancements made by science and factual reason. This is mainly because of the ignorance of the people. The priests try to instil full traditional beliefs in people through various customs and rituals. They believe that they can pacify the evil spirits away by making ample offerings to please God. All these are pointless and futile practices.

Question 3. Give two or three examples to show how science has been useful to us.

Answer: Science is a knowledgeable resource which helps us to discover the truth behind unknown possibilities through effective research and reason. It is a never ending process. Science has made living a comfortable process for us and protected us from famines, floods, natural calamities, diseases, etc.

Question 4. Give one example to show how science has been misused, and has as a result been harmful to us.

Answer: There have been various misuses of science through the creation of nuclear power or discovery of atomic bomb. The discovery of gun powder has led to the creation of hydrogen bombs and lethal arms and ammunitions. Such misuse of science has therefore, led to huge loss of life and property across the globe.