Synthetic Fibres and Plastics

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LESSON PLAN

SPECIFIC OBJECTIVES

The students will learn about

- monomers and polymers
- synthetic fibres
- properties, uses, advantages and disadvantage of using synthetic fibres
- plastics, their types and properties
- plastics and the environment

TEACHING AIDS

Pictures/charts/models/animations on structure of polymers; rayon, nylon, polyester and acrylic fibres and different things made of these fibres; Different objects made of plastics; harms of plastics; jute bags; International symbol of recycling.

LESSON PLAN

- Teacher will start the chapter by going through the points given in 'Know these points before you start' section.
- Teacher will ask questions on artificial and natural fibres based on the previous knowledge of students.
- Now, teacher will define monomers, their types and polymers and will explain the process of polymerisation.
- Teacher will explain natural and synthetic polymers.
- Teacher will explain properties and uses of various synthetic fibres (as given in the chapter).
- Now, teacher will explain differences in the properties of synthetic and natural fibres by demonstrating the related activity given in the chapter.
- Teacher will ask students to solve Check Point 1.
- Now, teacher will discuss plastics, their properties, types and uses.

- Teacher will then discuss harmful impacts of plastics on the environment.
- Teacher will also discuss the measures to reduce plastic pollution.
- Now, teacher will ask students to solve Check Point 2.
- Teacher will make students revise the new terms given under the head 'Know These Terms'.
- Finally, teacher will help students to solve the questions given in exercises under the head 'Practice Time' and 'Think Zone'.

BOOST UP

- Teacher should demonstrate and explain activities given in the chapter.
- Teacher should discuss the information given under the head 'Something More'.
- Teacher should discuss the conversation of Annu and Mannu given in between the topics.
- Students should be encouraged to find uses of natural and synthetic fibres from everyday life. They should also be encouraged to explore adverse effects of plastics on the environment.
- Teacher should encourage students to minimise the use of plastic articles.
- Students should be encouraged to find more ways, other than those given in the chapter, to reduce plastic pollution.

EXPECTED LEARNING OUTCOMES

The students know about

- artificial fibres.
- monomers, polymers and synthetic, and natural polymers, their properties and uses.
- plastics, their properties, types, uses and harmful impacts on the environment.
- measures to reduce plastic pollution.

EVALUATIVE QUESTIONS

The teacher may ask the following questions for evaluating the understanding of students:

1. Define synthetic fibres.
2. Write the differences between polymers and monomers.
3. Mention two properties of rayon.
4. Who discovered nylon? Write its few properties.
5. Mention three advantages of synthetic fibres.
6. Give two examples of thermoplastics.
7. How can we reduce plastic pollution?
8. Why do plastic articles remain unchanged for years in garbage?