



PUBLIC SCHOOL DARBHANGA

SESSION (2020-21)

CLASS-VIII

SCIENCE

SYNTHETIC MATERIAL

1. What are the properties of polythene?
2. Explain why plastic containers are favoured for storing food.
3. Explain why the following are made of thermosetting plastics:
(a) Saucepan handles, (b) Electric plugs/switches/plug boards.
4. Rana wants to buy shirts for summer. Should he buy cotton shirts or shirts made from synthetic material? Advice Rana, giving your reason.
5. Give three advantages of rayon.
6. What are the advantages of nylon?
7. Give some uses of nylon.
8. What are the advantages of using fabrics made of polyester?
9. Why people prefer to wear acrylic sweaters than pure wool sweaters?

ANSWERS:

11. Polyethene is a thermoplastic polymer. It is non biodegradable polymer. It is one of the most light weight and durable packaging material.

It is resistant to chemicals i.e. it is not attacked by strong acids or strong bases.

It burns slowly with a blue flame having a yellow tip and gives off an odour of paraffin.

The material continues on removal of the flame source and produces a drip.

2. Plastic containers are favoured for storing because:

(1) Plastic is inert i.e. it does not react with the materials stored in the container.

(2) They do not get corroded like metal containers.

(3) They are durable and versatile. Transparent plastic containers help in viewing the contents.

3. (a). Sauce pan handles are made up of thermosetting plastics because they are heat resistant. Thermoplastic melt on heating where as thermosetting plastics do not.

(b). Electric plugs/switches/plug boards are made up of thermosetting plastics because they do not conduct electricity and they also do not melt on heating. Thermoplastics are also bad conductors of electricity but they melt on heating.

4. Rana should buy **cotton shirt** because synthetic fabrics absorb very little moisture. They become sticky when the body sweats, which makes them uncomfortable to wear in hot weather

5. Rayon absorbs sweat. Rayon clothes are therefore, preferred over other synthetic fibres in summer.

It is shiny and lustrous and resembles silk in appearance.

It is durable, less expensive and easy to maintain.

Nylon has the ability to be very lustrous, or dull.

6. It is a strongest fibre hence is used for making ropes and parachutes.

It has high resistance to insects, fungi and animals, moulds, and many chemicals.

Some of the uses of Nylon are:

Nylon is used for making bath sponges. These are also called bath puffs or boofpuffs.

All waterproof clothes like rain coats, hats, leggings are made up of nylon.

7. Articles like socks, ropes, tents, toothbrushes, car seat belts, sleeping bags, curtains are also made from Nylon.

Nylon is also used for making parachutes and ropes for rock climbing.

Nylon is widely used in making tyres and military supplies.

8. Fabrics made up of Polyester are:

Strong, light weight, and have good elasticity.

Resist wrinkling and springs back into shape when creased.

Can be washed and dried easily and quickly.

9. Acrylic sweaters are preferred over pure wool sweaters because they are:

Warm, soft, light and flexible.

Resistant to moths and chemicals.

Cheap and available in variety of colours.