Chapter 8: How Things are Made

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8.1 Paper and Its Sources

Q1 Do you think that we waste paper?

Sample answer: Yes, we waste paper in many ways — by writing on only one side, printing unnecessary pages, and throwing away slightly used sheets. Being careful about how we use paper can help reduce this waste.

Q2 How can we reduce wastage of paper?

We can reduce paper wastage by using both sides of every sheet, printing only when needed, avoiding single-use paper cups, reusing old notebooks for rough work, and choosing digital options whenever possible.

8.2 Make Recycled Paper (Activity)

Q1 Collect materials: Old newspapers, some fenugreek seeds (methi) and water. Prepare the paper pulp, blend it, roll it out and leave to dry. (Activity: Make recycled paper following the given steps.)

Follow the five steps: collect old newspapers and fenugreek seeds; soak torn newspaper pieces with fenugreek seeds in water overnight; blend or mash the soaked mixture into a wet pulp; spread the pulp on a flat base and roll it into thin sheets; leave the sheets to dry. Your recycled paper is ready.

Q2 Colour and design the paper you have made. (Activity: Natural Colour Experiment — colour pieces of recycled paper using turmeric, spinach, beetroot and henna. Record colour and brightness.)

This is an open activity table (p.120). The textbook pre-fills only one row: Turmeric → Yellow, dull. The 'Paste a sample here' column and the Spinach/Beetroot/Henna rows are blank — students fill them by dyeing paper samples. Guidance: Turmeric gives yellow, dull colour. Spinach gives light green colour. Beetroot gives pink or magenta colour. Henna gives reddish-brown colour. Natural dyes from plants are safe and can colour paper, clothes and pots. [EXISTING ANSWER IS CORRECT — NO CHANGE NEEDED]

Q3 Make a greeting card, a paper mask or any such item made of recycled paper. (Activity)

Sample answer: Use the dried recycled paper sheet to cut out a card shape. Fold it, decorate with natural dyes or patterns, and write a message inside. You can also cut shapes from the paper to make a mask by adding eye holes and a string.

8.3 Different Types of Paper and Their Uses (Activity)

Q1 Observe different types of paper (writing paper, newspaper, art paper, cardboard, tissue paper). Paste small pieces in the space and write their uses. (Activity)

This is a pure paste-and-write activity table (p.123) with 5 rows, each showing only 'Paste here' in the Types column and a blank Uses column — no paper names or uses are printed. Students paste physical samples and write uses themselves. Guidance: writing paper for notes/letters; newspaper for reading/crafts; art paper for drawing/painting; cardboard (thick/hard) for boxes/packaging; tissue paper (soft/thin) for cleaning/wiping. [EXISTING ANSWER IS CORRECT — NO CHANGE NEEDED]

8.4 The 5Rs of Waste Management

Q1 Discuss the following situations and write down which of the 5Rs it belongs to: (a) Maya does not use a plastic straw to drink coconut water. (b) Rohan uses blank pages of his old notebooks to avoid wastage of paper. (c) Sara gives her old books to younger students for their use. (d) Kabir paints an old bottle to use as a flower vase. (e) Priya cuts old clothes to make a fun bag for carrying her books. (f) A shopkeeper turns old newspapers into paper envelopes.

(a) Maya not using a plastic straw — Refuse. (b) Rohan using blank pages of old notebooks — Reduce. (c) Sara giving old books to younger students — Reuse. (d) Kabir painting an old bottle as a flower vase — Repurpose. (e) Priya cutting old clothes to make a bag — Repurpose. (f) A shopkeeper turning old newspapers into paper envelopes — Recycle.

8.5 Let Us Get Creative with Paper

Q1 What are some objects that you can make using paper pulp? Ask your teachers and elders for more ideas.

Using paper pulp you can make bowls, pots, decorative items, masks, small trays, and greeting cards. Paper pulp can be moulded into shapes and left to dry, making it useful for crafting many everyday objects.

Q2 Write down one step you can take for each of the 5Rs in the boxes given below: Refuse, Reduce, Reuse, Repurpose, Recycle.

Sample answer: Refuse — say no to single-use paper cups or plastic carry bags. Reduce — use both sides of every sheet of paper before throwing it away. Reuse — use a cloth bag again and again instead of taking a new one each time. Repurpose — use an old newspaper to wrap gifts or line shelves. Recycle — collect used paper and send it to a recycling centre so it can be turned into new paper.

Q3 Discuss the changes you can bring in your daily life by using the 5Rs rule to avoid wastage of paper. Complete the table with your ideas for creating these changes.

Sample answer: Refuse — avoid buying products that come with excessive paper packaging. Reduce — print fewer documents and prefer digital notes in school. Reuse — use old envelopes for rough work or shopping lists. Repurpose — make bookmarks, paper bags or art from old magazines. Recycle — separate paper waste at home and put it in the recycling bin so it can be made into new paper products.