Chapter 11: Making Things

CONTENTS

15 exercises · 37 questions

11.1	A Potter's Family	3 Q
11.2	Activity 1 — Visit a Potter	4 Q
11.3	Mini Helps at Home	1 Q
11.4	Activity 2 — Make Your Own Clay	1 Q
11.5	Activity 3 — Arrange Images in Order	1 Q
11.6	Patterns in Nature — Activity 4	4 Q
11.7	Patterns in Indian Pottery	1 Q
11.8	Brick by Brick	6 Q
11.9	Activity 5 — Types of Houses	1 Q
11.10	Activity 6 — Make a Wall	2 Q
11.11	Safety First	2 Q
11.12	Let Us Reflect — A. Write	5 Q
11.13	Let Us Reflect — B. Draw	1 Q
11.14	Let Us Reflect — C. Discuss	3 Q
11.15	Let Us Reflect — D. Interview	2 Q

11.1 A Potter's Family

Q1 What are pots used for?

Pots are used for storing water, cooking food, and keeping things in them. They come in many sizes for different uses.

Q2 What other kinds of things do potters make?

Potters make cups (kulhad), piggy banks (gullak), flower pots, plates, birdbaths, lamps (diyas), and decorative items using clay.

Q3 Why is the pot baked in a kiln?

The pot is baked in a kiln so that the heat makes it hard and strong. Without baking, the clay pot would remain soft and break easily.

11.2 Activity 1 — Visit a Potter

Q1 Visit a potter in your neighbourhood with your parents or elders in the family. Observe how the potter works on the stone wheel or the potter's wheel.

Activity: Visit a local potter with an adult. Watch how the potter centres the clay on the spinning wheel and uses both hands to pull the clay upward and shape it into a pot.

Q2 Have you wondered how clay takes a beautiful shape on a spinning wheel?

Sample answer: Yes, it is amazing! When the wheel spins fast, the potter presses and lifts the clay gently. The spinning motion and the potter's hands together give the clay a round, even shape.

Q3 Which of the products made by a potter do you use at home?

Sample answer: At home we use clay cups (kulhad) for drinking tea and clay pots for storing water. During festivals, we use small clay lamps called diyas.

Q4 Draw some of the products that you have seen at the potter's place in the box given below.

Activity: Draw items like a round pot, a kulhad, a diya, and a piggy bank. Colour them brown or terracotta to show they are made of baked clay.

11.3 Mini Helps at Home

Q1 In what ways do you help your parents and grandparents?

Sample answer: I help my parents by keeping my room tidy, setting the table for meals, watering the plants, and helping my grandparents by fetching things they need.

11.4 Activity 2 — Make Your Own Clay

Q1 Make your own clay and make any two things you like with it. Put it out in the sun to dry.

Activity: Collect soil from a muddy place, sieve out pebbles and leaves, soak in water, drain the water after a few days, and knead into dough. Shape it into two objects — such as a small bowl and an animal — and dry them in the sun.

11.5 Activity 3 — Arrange Images in Order

Q1 Arrange the images in the correct order by numbering them from 1 to 6.

The six images show the steps of pot making. The correct order is: 1 — A bag of dry clay (collecting clay); 2 — Kneading/pounding clay in a bowl (preparing the clay); 3 — Two lump-shaped clay pieces drying in the sun (shaping and drying raw clay); 4 — Shaping the pot on a spinning potter's wheel (throwing on the wheel); 5 — Baking in the dome-shaped kiln with fire (firing in the kiln); 6 — The finished baked pot (ready to use).

11.6 Patterns in Nature — Activity 4

Q1 Look around for patterns on plants. Draw any pattern of a leaf in the given box.

Activity: Observe a neem leaf and notice how the small leaflets are arranged in a row on either side of the stalk. Draw this repeated arrangement and colour it green.

Q2 Look around for patterns on animals. Draw an animal which has patterns on its body.

Activity: Draw a zebra with black and white stripes, or a butterfly with repeated wing patterns. Colour the patterns carefully to show how they repeat.

Q3 Look around for patterns on things. Draw a pattern in the box.

Activity: Look at floor tiles, a window grille, or a printed fabric. Draw the repeating shape you find — for example, squares or triangles arranged in a row.

Q4 Decorate the given objects with patterns.

Activity: Three outline objects are shown — a mug (cup with handle), a wide round matka (pot), and a tall narrow vase. Decorate each one by drawing a simple repeating pattern — for example, draw rows of small triangles around the mug, wavy lines across the middle of the round pot, and rows of dots or petals on the tall vase. Use 2 or 3 colours to make the patterns stand out.

11.7 Patterns in Indian Pottery

Q1 Tick the ones that have patterns on them.

Seven pottery items are shown. Tick the ones with patterns: Row 1 — Tick the first item (group of small terracotta pots with etched designs); Tick the second item (round bowl with geometric triangles and leaf shapes painted on it); the third item (cylindrical clay instrument) has no clear painted pattern, do not tick. Row 2 — Tick the fourth item (clay tile with carved animal/bull relief figures); Tick the fifth item (many round pots covered with dots and painted decorations); the sixth item (plain terracotta jug) has no painted pattern, do not tick; Tick the seventh item (row of tall red terracotta figurines with a repeated decorative form). Total: tick items 1, 2, 4, 5, and 7.

11.8 Brick by Brick

Q1 Where have you seen bricks?

Sample answer: I have seen bricks at construction sites where houses are being built, in boundary walls around parks and schools, and in old buildings in my neighbourhood.

Q2 Have you ever seen how bricks are made?

Sample answer: Yes, I have seen workers fill mud into rectangular moulds to shape the bricks. The bricks are then dried in the sun and baked in a kiln to make them hard.

Q3 Are all houses made of bricks?

No, not all houses are made of bricks. In some places, houses are made of wood, mud, bamboo, stones, or grass depending on the local climate and materials available.

Q4 What do you think are other materials used to build houses?

Houses can be built using wood, stone, cement, glass, bamboo, mud, cow dung, grass, and steel. Different regions use different materials based on what is available.

Q5 Why do you think mud houses are better for the environment?

Mud houses use natural materials like soil, grass, and wood which are found locally, so they do not need factories or long transport. They also stay cool in summer and warm in winter, saving energy.

Q6 Look around at the houses in your neighbourhood. What are the houses made of?

Sample answer: Most houses in my neighbourhood are made of bricks, cement, and steel with glass windows. Some older houses have wooden doors and stone walls.

11.9 Activity 5 — Types of Houses

Q1 Look at the pictures below. Guess the name of each type of house. Fill in what type of house it is and what it is made of.

Four types of houses are shown in the table. Row 1 — Picture shows a tent (green and yellow triangular shelter with poles and ropes). Name: Tent. Made of: Cloth or canvas and metal or wooden poles. Row 2 — Picture shows a tall skyscraper/apartment building with many floors and glass walls. Name: Apartment building (or multi-storey building). Made of: Bricks, cement, steel, and glass. Row 3 — Picture shows a low stone and wood cottage near water with trees. Name: Stone house (or kutcha/rural stone house). Made of: Stones and wood. Row 4 — Picture shows a houseboat on water with a palm tree. Name: Houseboat. Made of: Wood.

11.10 Activity 6 — Make a Wall

Q1 Make some bricks using a matchbox mould, small paper boxes, clay or atta (dough). Stack them in the two arrangements shown. Which one is sturdier?

The arrangement where each row of bricks is offset (staggered) from the one below is sturdier. The joints do not line up, so the weight is spread evenly and the wall does not fall easily.

Q2 Which one falls more easily when pushed?

The arrangement where all the bricks are stacked directly on top of each other (joints aligned) falls more easily when pushed, because the weak joints all line up vertically.

11.11 Safety First

Q1 Are there any safety rules at home?

Sample answer: Yes, at home we do not touch hot vessels or the gas stove, we do not go near open windows on upper floors, and we do not play with sharp objects or electric sockets.

Q2 Do you have any safety rules at school?

Sample answer: At school we walk in the corridors, do not run near the staircase, listen to the teacher during drills, and do not climb over the boundary wall.

11.12 Let Us Reflect — A. Write

Q1 What is the process of pot making?

The potter first collects clay and makes it wet by adding water. He kneads it like dough until it is smooth. He then places the clay on a spinning wheel and shapes it into a pot. The pot is dried and then baked in a hot oven called a kiln. After baking, the pot is hard and ready to use.

Q2 How do artists get ideas for their arts?

Artists observe patterns in nature — like spots on a leopard, stripes on a zebra, the shape of leaves, or the colours of a butterfly — and use these as ideas for the designs they paint on pots and other objects.

Q3 What is a kiln?

A kiln is a very hot oven used by potters and brick makers. Clay pots and bricks are placed inside the kiln and baked at high heat to make them hard and strong.

Q4 What are houses made of?

Houses can be made of many materials. Most houses use bricks, cement, steel, and glass. In some places, people build houses with mud, wood, bamboo, grass, stones, or cow dung depending on the weather and what is available locally.

Q5 Find videos on YouTube that show the process of things being made. Write down the steps in as much detail as possible.

Activity: Ask an elder to help you search for a video showing how a common object — like a clay pot, a pencil, or a brick — is made. Watch carefully and write each step in order, for example: (1) Raw material collected, (2) Material shaped, (3) Dried or processed, (4) Finished product ready.

11.13 Let Us Reflect — B. Draw

Q1 Draw and colour any three different kinds of houses.

Activity: Draw three types of houses — for example, a mud house with a thatched roof, a brick house with a flat roof, and a wooden house on stilts. Colour each one and label it with the materials used.

11.14 Let Us Reflect — C. Discuss

Q1 Why do we have different kinds of houses?

We have different kinds of houses because people live in different climates and places. People in cold areas need thick walls to stay warm, while people in rainy areas need sloping roofs. Local materials also decide how a house is built.

Q2 Why do people wear helmets at construction sites?

People wear helmets at construction sites to protect their heads from falling bricks, stones, or heavy tools. A helmet can prevent serious injuries and keeps workers safe while they build tall structures.

Q3 What would happen if there were no patterns in nature?

If there were no patterns in nature, everything would look random and plain. Animals would have no markings to camouflage or attract mates, leaves and flowers would look alike, and artists would have far fewer ideas for beautiful designs.

11.15 Let Us Reflect — D. Interview

Q1 Interview someone who makes crafts or toys in your locality. Share the information in the class.

Activity: Visit a local craft maker — a potter, weaver, or toy maker — with an elder. Ask them: What do they make? What materials do they use? How long does it take? Write their answers and share with your class.

Q2 Find out how some commonly used objects like pencils, erasers, pens and notebooks are made. Ask your elders.

Activity: Ask your parents or a teacher how a pencil is made. A pencil is made from a thin rod of graphite placed inside a wooden casing. Erasers are made from rubber. Notebooks are made by cutting and binding paper made from wood pulp. Write what you find out and share in class.