Chapter

8

Weigh It, Pour It

0433CH08

In Grade 3, we learnt about measuring weight and capacity. Do you remember the 1 kilogram salt packet and 1 litre bottle? Let us learn some more about measuring weight and capacity.

1. Look at the pictures given and write the names of the animals from heaviest to lightest.

   _____

2. Write the name of the heaviest object in your home. How did you know?

   _____

3. Do you carry your school bag with ease or with some effort?

   _____

4. Write the name of the heaviest book in your bag. How did you know?

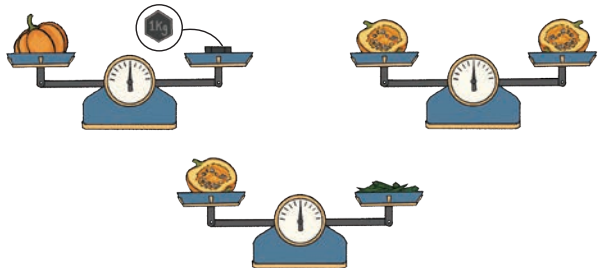
   _____

5. What is your weight? How did you know?

   _____

Fun at Vegetable Market!

Rita and Shabnam went to the market to buy some fruits and vegetables. They saw the vegetable seller weighing vegetables.



What do you think will be the weight of the half pumpkin? _____

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Let Us Do

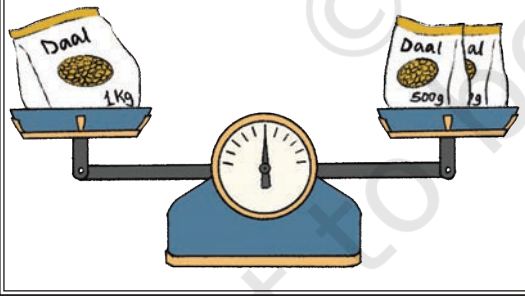
Estimate the weight of the following and put a tick mark (✓) in the appropriate cell. Try to verify if your guess is correct by using a weighing balance.

Fruits and vegetables	Estimation		Actual weight	
	Less than 1 kg	More than 1 kg	Less than 1 kg	More than 1 kg
6 Bananas				
5 Potatoes				
10 Tomatoes				
15 Onions				

Let Us Explore

We often write kg for kilogram and g for gram

a. Look at the picture. You may also try doing the same.



2 packets of 500 grams = 1000 g = 1 kg

So, 1 packet of 500 g = $\frac{1}{2}$ kg

Or 500 g = $\frac{1}{2}$ kg

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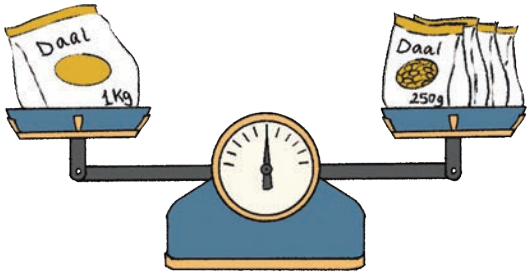
b. Look at the picture. You may also try doing the same.

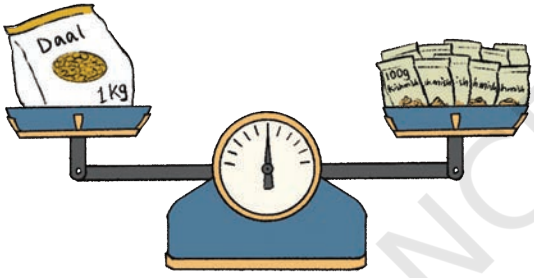


4 packets of 250 grams = 1000 g = 1 kg

So, 1 packet of 250 g = $\frac{1}{4}$ kg

Or 250 g = $\frac{1}{4}$ kg

c. Look at the picture. You may also try doing the same.



10 packets of 100 grams

= 1000 g = 1 kg

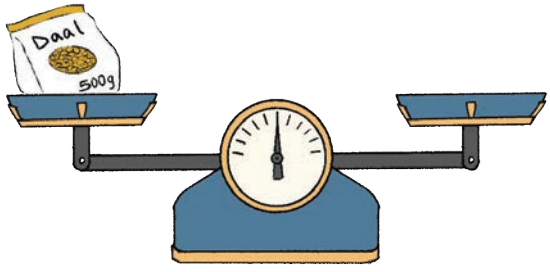
Let Us Find

1. How many 250 g daal packets will balance one 500 g daal packet?

Draw as many packets of 250 g on the empty pan such that it balances the 500 g packet shown on the left pan of the balance.

What did you find?

250 g = _____ of 500 g ($\frac{1}{2}$, 2)



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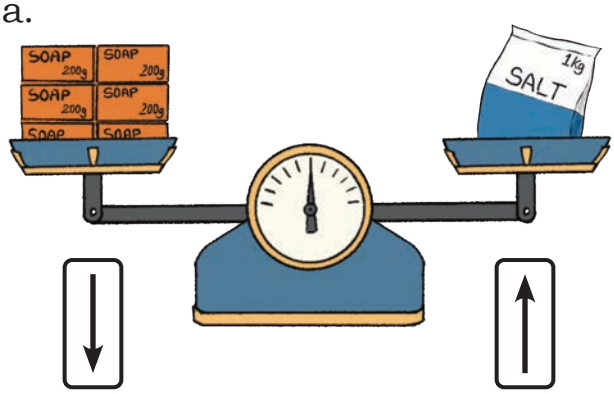
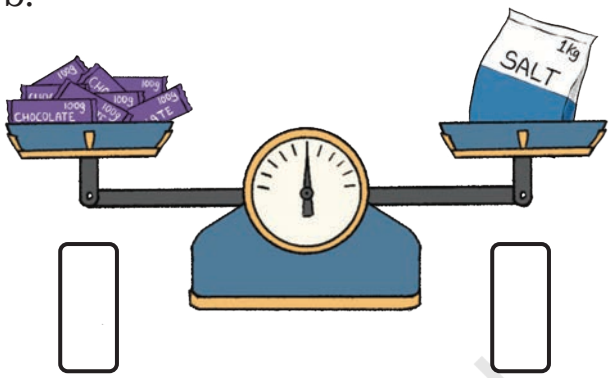
2. Draw arrows to indicate which side the pan balance will tilt? One is shown for you.

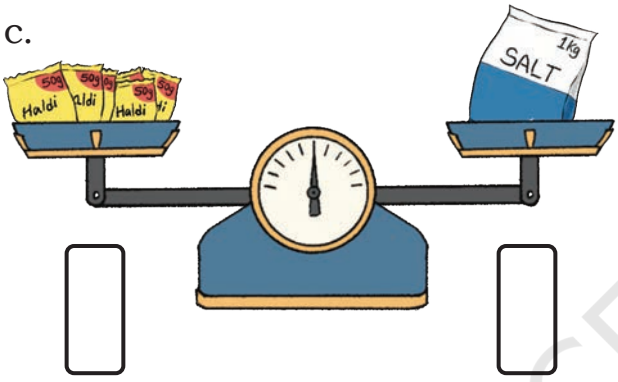
a.



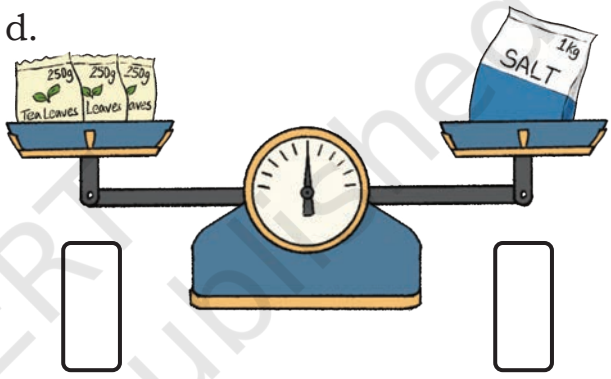
b.



c.



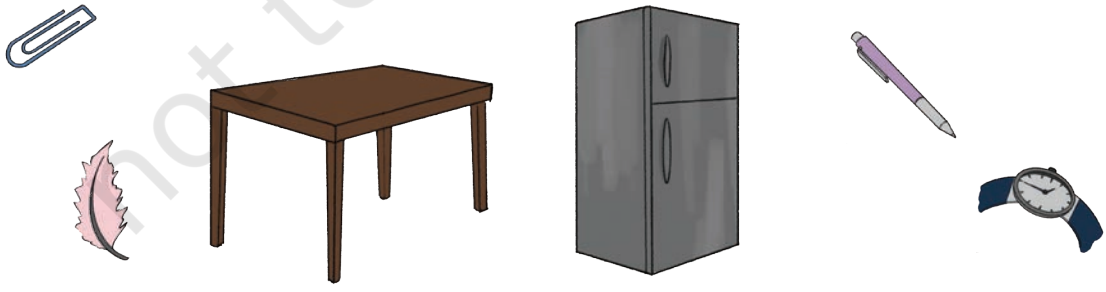
d.



3. Match the unit convenient for measuring each of the following objects?

Kilograms

Grams



Note for Teachers: You could try to organise a weighing balance in grade and weights like 100 g, 500 g, 1 kg. You could also ask children to do this task at home or in their neighbourhoods.

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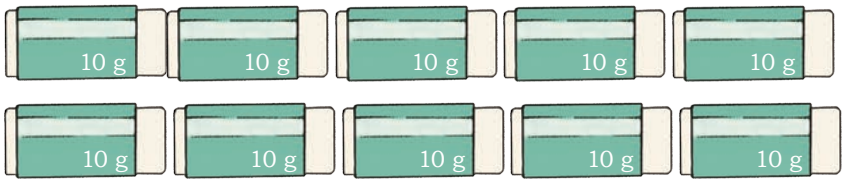
Let Us Do



1. How many erasers will weigh the same as a 50 g *Haldi* packet?_____
2. A 100 g soap bar will weigh the same as _____ erasers.
3. _____ erasers will weigh the same as 250 g sugar.

Let Us Think

Boxes of Sweet

Mr Shrinathan, a sweet shop owner has several orders for 1 kg *Kaju-katli* but he has to pack them in different sized boxes.

Write down the number of boxes needed to pack 1 kg *Kaju-katli* in the blank space:

1. Mr Das wants the sweets in boxes weighing 500 g each. _____
2. Mrs Fernandes wants the sweets in boxes weighing 250 g each. _____
3. Mrs Khan wants the sweets in boxes weighing 100 g each. _____
4. Mr Patel wants the sweets in boxes weighing 50 g each. _____

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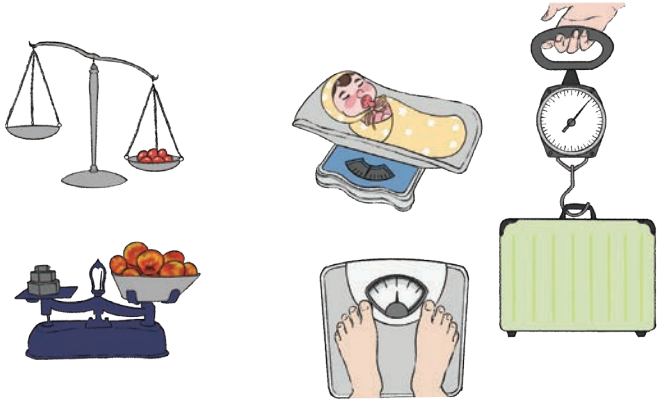
Weighing Machines

Do you know the different types of weighing machines used to weigh different objects?



Let Us Do

Ask your parents and find the amount of consumption of the following items at your home in a month.

Items	Weight
Atta	
Rice	
Pulses	
Sugar	

Taran and his sister are lifting packets of flour, rice, and salt.

What do you think they are experiencing while lifting these packets?

Have you ever lifted such packets at your home? What do you experience? Discuss.

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Let Us Do

1. Try to lift some objects around you and write the names of three objects that you can lift easily. Estimate and write their weights.

   1. _____ 2. _____ 3. _____

2. Now write the names of things that you can lift with a lot of effort. Estimate and write their weights.

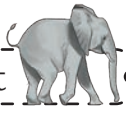
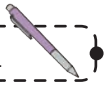
   1. _____ 2. _____ 3. _____

3. How many 1 kg packets are in

   a. 10 kg : _____ c. 50 kg : _____

   b. 20 kg : _____ d. 25 kg : _____

4. Match the objects in the left column with their estimated weights in the right column.

A cat 	1 g to 5 g
An elephant 	150 kg to 300 kg
A 1 litre filled bottle 	3 kg to 5 kg
A tiger 	10 g to 15 g
An empty gas cylinder 	6 kg to 10 kg
A pen 	More than 1000 kg
A leaf 	15 kg
A wooden chair 	800 g to 1000 g

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Do You Know?

Mirabai Chanu is an Indian weightlifter. She won the silver medal at the 2020 Tokyo Olympics in the Women's 49 kg event. She lifted a total of 202 kg.

Measuring Capacity

Do you remember the 1 litre bottle? How much water does your water bottle hold?

Find bottles and containers that can hold the following quantities of water. Write their names in the appropriate columns in the table given below.

Less than 1 litre	1 litre	More than 1 litre

Take help from your teachers and parents to collect different bottles with different capacities—500 *ml*, 250 *ml*, 100 *ml*, 50 *ml*, and 10 *ml*.

We often write l for litre and ml for millilitre

Try to fill a one litre bottle with the water contained in different smaller bottles.

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Let Us Find

a) How many 500 *ml* bottles will fill a 1 *l* bottle?

500 ml + 500 ml = 1 l

1000 ml = 1 l

$$\textbf{500 ml} = \frac{1}{2}\ \textbf{l}$$

b) How many 250 *ml* bottles will fill a 1 *l* bottle?

250 ml + 250 ml + 250 ml + 250 ml = 1 l

1000 ml = 1 l

$$\textbf{250 ml} = \frac{1}{4}\ \textbf{l}$$

c) How many 100 *ml* bottles will fill a 1 *l* bottle?

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d) How many

250 *ml* in $\frac{1}{2}$ *l* = _____ 250 *ml* in 750 *ml* = _____

100 *ml* in $\frac{1}{2}$ *l* = _____ 100 *ml* in 800 *ml* = _____

Let Us Do

1. Find a dosing cup or a bottle of 10 *ml* and try to find how many 10 *ml* will fill a 100 *ml* bottle _____

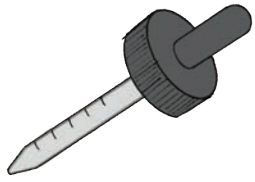
Find how many

a) 10 *ml* dosing cups will fill a 250 *ml* glass? _____

b) 10 *ml* dosing cups will fill a 500 *ml* vessel? _____

c) 10 *ml* dosing cups will fill a 1 *l* bottle? _____

2. Take a 1 *ml* dropper and find out



a) How many 1 *ml* droppers will fill a 10 *ml* dosing cup? _____

b) How many droppers will fill a teaspoon? _____

3. Find out how much of these liquids are used at a time.

a) Eye drops Less than 1 *ml* at a time.

b) Honey _____

c) Cough Syrup _____

d) Cooking Oil _____

e) _____ _____

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4. Mr Krishna packages perfumed oils in different sized bottles. During a festival, the following customers asked for 1 *l* perfumed oils but in different sized bottles. Write the number of bottles each of them will get.

   a) Ms Shetty wants bottles of 500 *ml* each _____

   b) Mr Muthukumar wants bottles of 200 *ml* each _____

   c) Ms Naini wants bottles of 100 *ml* each _____

   d) Ms Kannan wants bottles of 50 *ml* each _____

5. Estimate and verify by measuring. Use the bottles you have collected for this purpose (for example, 500 *ml*, 250 *ml*, 100 *ml*, 50 *ml*, and 10 *ml*).

Container	Estimate	Actual capacity
Water bottle		
Glass		
Mug		
Jug		
Bucket		
Teaspoon		
Bowl		

Let Us Explore

Visit nearby shops and make a list of different items that are sold in the following quantities.

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50 *ml*	100 *ml*	200 *ml*	250 *ml*	500 *ml*	900 *ml*

Let Us Find

a) How many litres of water do you drink in a day? How did you find out?

_____

b) How much water can a crow drink at a time?

_____

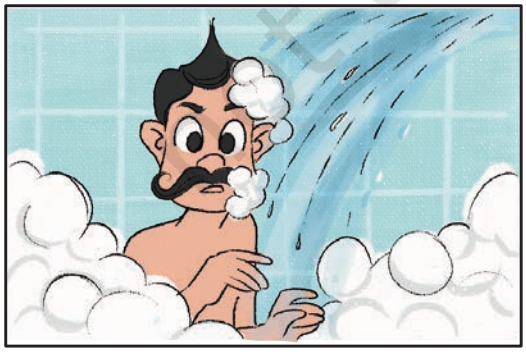
c) How much milk do you drink in one day?

_____

d) How much water does an elephant drink in a day?

_____

What do you use the most water for? What do you use the least water for? Compare this with a few others in your grade . In which activities is your water usage the same?



How much water may be used in the following activities?

a. Water for taking a shower

b. Watering crops in a field

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c. Watering flowering plants

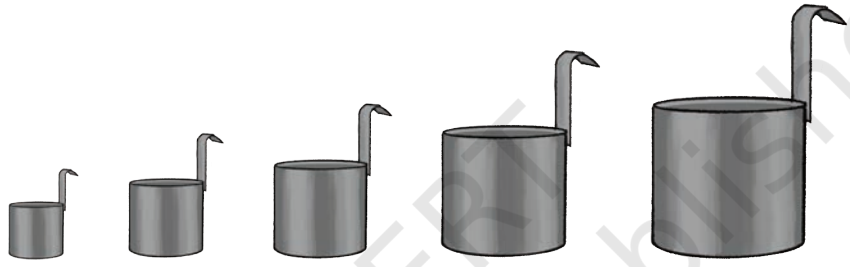
d. Washing clothes

e. _____

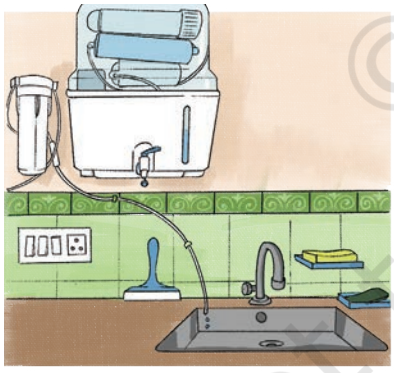
f. _____

Containers Used for Measuring Capacity

Have you seen these measuring cans for measuring milk?



Water Conservation in Everyday Life



Have you ever noticed a small drip of water flowing from your tap or water purifier? Have you considered how much water is actually being wasted?

Take a container and put it under the leaking tap or water purifier for an hour. How much water is lost in an hour from just a slow drip? Did it surprise you?

How much water is lost in a day?

How much do you think is lost in a week?

How would this wastage of water affect us?

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