MEASUREMENT IN REAL LIFE

A hands-on maths adventure through everyday measuring

TIME	LENGTH	WEIGHT	CAPACITY

Inside this pack: 12 practical activities, mini challenges, space to show your working, and a complete answer key.

MEASURE THE WORLD AROUND YOU

Name: _____ Date: _____

Welcome, Measurement Explorer!

Measurement helps us cook, decorate rooms, pack bags, build things, travel and understand the world. In these activities, you will use numbers to solve everyday problems.

Remember: Write the unit with every measurement. Check whether your answer makes sense. When a question asks you to explain, show how you worked it out.

YOUR MEASUREMENT TOOLKIT

Length	millimetres (mm), centimetres (cm), metres (m), kilometres (km)
Mass	grams (g), kilograms (kg)
Capacity	millilitres (mL), litres (L)
Area	square centimetres (cm^2), square metres (m^2)
Temperature	degrees Celsius (°C)
Time	seconds, minutes, hours

Quick conversions

1 m = 100 cm • 1 km = 1,000 m • 1 kg = 1,000 g
1 L = 1,000 mL • 1 hour = 60 minutes

1. Cooking & Baking Maths

A recipe is a delicious way to practise measuring. Read each situation carefully and calculate the amount needed.

THINK • MEASURE • SOLVE

Explorer tip: Estimate first, calculate second, and always write the unit.

1. A cake needs 250 g of flour. You are making half the recipe. How much flour will you use?

_____

2. A jug contains 1 L of milk. You pour out 350 mL. How much milk remains?

_____

3. A recipe needs 3 eggs and makes 6 muffins. How many eggs are needed for 18 muffins?

_____

4. You have a 500 g bag of sugar. A recipe uses 175 g. How much sugar is left?

_____

5. A bottle holds 750 mL of juice. How many full 250 mL glasses can you pour?

_____

MINI CHALLENGE

Find a recipe at home. Choose one ingredient and write its measured quantity. What would happen if you doubled the recipe?

_____

_____

2. Measure Your Home

Imagine you are measuring a room before rearranging the furniture. Use the measurements below.

THINK • MEASURE • SOLVE

Explorer tip: Estimate first, calculate second, and always write the unit.

1. A room is 5 m long and 4 m wide. What is its perimeter?

_____

2. Find the area of the same room.

_____

3. A doorway is 90 cm wide. A cabinet is 85 cm wide. How much wider is the doorway?

_____

4. A wall is 3 m high. Convert this height into centimetres.

_____

5. A rug is 2 m long and 1.5 m wide. Find its area.

_____

MINI CHALLENGE

Measure a small object near you. Record its length and width, including units.

_____

_____

3. Weight Detective

Compare weights and solve the shopping and packing puzzles.

THINK • MEASURE • SOLVE

Explorer tip: Estimate first, calculate second, and always write the unit.

1. A watermelon weighs 3 kg 200 g. Write its mass in grams.

_____

2. A bag of rice weighs 5 kg. You use 1 kg 750 g. How much rice remains?

_____

3. Three parcels weigh 850 g, 1 kg 200 g and 650 g. Find their total mass.

_____

4. A suitcase can hold 20 kg. It already weighs 14 kg 600 g. How much more can be packed?

_____

5. Which is heavier: 2,450 g or 2 kg 600 g? By how much?

_____

MINI CHALLENGE

Find two packaged items at home. Record their masses and say which is heavier.

_____

_____

4. How Much Can It Hold?

Capacity tells us how much liquid a container can hold.

THINK • MEASURE • SOLVE

Explorer tip: Estimate first, calculate second, and always write the unit.

1. A tank holds 8 L of water. 2 L 500 mL is used. How much remains?

_____

2. A small bottle holds 300 mL. How many bottles are needed to fill 2.4 L?

_____

3. A jug contains 1.5 L. You add 750 mL. What is the new quantity?

_____

4. A bucket holds 12 L. It is one-quarter full. How much water is inside?

_____

5. You have 5 L of lemonade. It is poured equally into 10 cups. How much goes into each cup?

_____

MINI CHALLENGE

Choose two containers. Estimate which holds more, then test your prediction safely with water.

_____

_____

5. Shopping by Measurement

Product sizes can be compared using length, mass and capacity. Work out the best value or quantity.

THINK • MEASURE • SOLVE

Explorer tip: Estimate first, calculate second, and always write the unit.

1. A 2 kg pack of oats costs $8. A 500 g pack costs $2.50. Which has the lower cost per kilogram?

_____

_____

2. One ribbon is 2.4 m long and another is 185 cm long. What is their total length in centimetres?

_____

3. A 1 L bottle costs $3.20. A 500 mL bottle costs $1.80. Which costs less per litre?

_____

_____

4. A shop sells 750 g of nuts. How many grams are needed to make 4 equal packs?

_____

5. A customer buys 1.25 kg of apples and 850 g of pears. Find the total mass in grams.

_____

MINI CHALLENGE

Find two products sold in different pack sizes. Which information would help you compare their value?

_____

_____

6. Garden Maths

A garden is full of opportunities to measure lengths, areas and distances.

THINK • MEASURE • SOLVE

Explorer tip: Estimate first, calculate second, and always write the unit.

1. A rectangular flower bed is 6 m long and 2 m wide. Find its area.

_____

2. A garden path is 12 m long. You have laid 7.5 m. How much is left?

_____

3. A plant grows 18 cm in one month and 24 cm the next month. What is its total growth?

_____

4. A square lawn has sides of 4 m. Find its perimeter.

_____

5. You place a plant every 50 cm along a 4 m straight border. How many 50 cm spaces fit along the border?

_____

MINI CHALLENGE

Sketch a simple garden bed and label two lengths you would need to measure.

_____

_____

7. Build It Right

Builders and makers measure carefully to avoid wasting materials.

THINK • MEASURE • SOLVE

Explorer tip: Estimate first, calculate second, and always write the unit.

1. A shelf is 120 cm long. Three equal sections are needed. How long is each section?

_____

2. A wooden strip is 2.5 m long. You cut off 75 cm. How much remains in centimetres?

_____

3. A rectangular tabletop is 140 cm by 80 cm. Find its area in cm^2.

_____

4. A frame needs four pieces: two of 60 cm and two of 40 cm. What total length of strip is needed?

_____

5. A project needs 3.6 m of wire. You have 250 cm. How many more centimetres do you need?

_____

MINI CHALLENGE

Name one item you could make at home. List two measurements you would need before starting.

_____

_____

8. Temperature Around Us

Temperature is measured in degrees Celsius. Read the changes and compare the temperatures.

THINK • MEASURE • SOLVE

Explorer tip: Estimate first, calculate second, and always write the unit.

1. The morning temperature is 14°C and the afternoon temperature is 27°C. What is the increase?

_____

2. A freezer is at –18°C. The temperature rises by 5°C. What is the new temperature?

_____

3. A city records 31°C on Monday and 26°C on Tuesday. How much cooler was Tuesday?

_____

4. A temperature is 8°C below zero. Write it using a negative number.

_____

5. The temperature moves from 19°C to 12°C. Describe the change.

_____

MINI CHALLENGE

Record today's temperature, if available. Is it warmer or cooler than you expected?

_____

_____

9. The Measurement Conversion Challenge

Convert carefully. Remember to include the correct unit.

THINK • MEASURE • SOLVE

Explorer tip: Estimate first, calculate second, and always write the unit.

1. Convert 4.7 m into centimetres.

_____

2. Convert 3,250 g into kilograms and grams.

_____

3. Convert 2.65 L into millilitres.

_____

4. Convert 6 km 80 m into metres.

_____

5. Convert 845 cm into metres and centimetres.

_____

6. Convert 95 minutes into hours and minutes.

_____

MINI CHALLENGE

Create your own conversion question using a unit of length, mass or capacity. Then solve it.

_____

_____

10. Time & Measurement

Combine time with distance, speed and everyday planning.

THINK • MEASURE • SOLVE

Explorer tip: Estimate first, calculate second, and always write the unit.

1. A cyclist travels 12 km in 1 hour. At the same speed, how far will the cyclist travel in 3 hours?

_____

2. A walk starts at 9:35 a.m. and ends at 10:20 a.m. How long is the walk?

_____

3. A train travels 180 km in 2 hours. What is its average distance per hour?

_____

4. A baker spends 15 minutes preparing, 35 minutes baking and 10 minutes cooling. Find the total time.

_____

5. A tap fills a container at 2 L per minute. How much water flows in 6 minutes?

_____

MINI CHALLENGE

Choose a journey you know. Estimate how long it takes and how far you travel.

_____

_____

11. Measurement Mystery Puzzles

Read the clues, spot the useful information and solve each mystery.

THINK • MEASURE • SOLVE

Explorer tip: Estimate first, calculate second, and always write the unit.

1. A mystery ribbon is longer than 1 m but shorter than 1.5 m. It is 35 cm longer than a 90 cm ribbon. How long is it?

_____

2. A parcel weighs 2 kg. Two small boxes inside weigh 450 g each. What is the mass of the remaining contents?

_____

3. A container holds 2 L. It has 650 mL inside. How much more is needed to fill it?

_____

4. A rectangular mat has a perimeter of 18 m. Its length is 5 m. What is its width?

_____

5. A walk is 3.6 km. You have walked 2,450 m. How many metres remain?

_____

MINI CHALLENGE

Write a measurement riddle for someone else to solve. Include enough clues for one clear answer.

_____

_____

12. The Ultimate Measurement Challenge

Plan a mini makeover for a study corner. Use the information and show your calculations.

THINK • MEASURE • SOLVE

Explorer tip: Estimate first, calculate second, and always write the unit.

1. The study area is 3 m long and 2 m wide. Find its area.

_____

2. A desk is 120 cm long. A shelf is 85 cm long. What is their combined length in metres?

_____

3. A floor mat is 1.5 m by 1 m. Find its area.

_____

4. You have 5 m of decorative border. The desk area needs 2.4 m and the shelf needs 1.8 m. How much border remains?

_____

5. Write two measurements you would take before buying a chair or desk. Explain why each is useful.

_____

_____

MINI CHALLENGE

Draw your study corner plan. Label the dimensions of the space and the furniture you would place in it.

_____

_____

_____

ANSWER KEY

Suggested answers are provided below. For open-ended mini challenges, answers will vary. Encourage clear working and correct units.

CHECK YOUR THINKING

1. Cooking & Baking Maths

1. 125 g

2. 650 mL

3. 9 eggs

4. 325 g

5. 3 glasses

2. Measure Your Home

1. 18 m

2. 20 m^2

3. 5 cm

4. 300 cm

5. 3 m^2

3. Weight Detective

1. 3,200 g

2. 3 kg 250 g

3. 2 kg 700 g

4. 5 kg 400 g

5. 2,600 g is heavier by 150 g

4. How Much Can It Hold?

1. 5 L 500 mL

2. 8 bottles

3. 2.25 L

4. 3 L

5. 500 mL

5. Shopping by Measurement

1. 2 kg pack: $4 per kg; 500 g pack: $5 per kg. The 2 kg pack is cheaper.

2. 425 cm

3. 1 L bottle: $3.20/L; 500 mL bottle: $3.60/L. The 1 L bottle is cheaper.

4. 3,000 g

5. 2,100 g

6. Garden Maths

1. 12 m²

2. 4.5 m

3. 42 cm

4. 16 m

5. 8 spaces

7. Build It Right

1. 40 cm

2. 175 cm

3. 11,200 cm²

4. 200 cm

5. 110 cm

8. Temperature Around Us

1. 13°C

2. –13°C

3. 5°C cooler

4. –8°C

5. It decreases by 7°C

9. The Measurement Conversion Challenge

1. 470 cm

2. 3 kg 250 g

3. 2,650 mL

4. 6,080 m

5. 8 m 45 cm

6. 1 hour 35 minutes

10. Time & Measurement

1. 36 km

2. 45 minutes

3. 90 km per hour

4. 60 minutes (1 hour)

5. 12 L

11. Measurement Mystery Puzzles

1. 125 cm (1.25 m)

2. 1 kg 100 g

3. 1,350 mL

4. 4 m

5. 1,150 m

12. The Ultimate Measurement Challenge

1. 6 m^2

2. 2.05 m

3. 1.5 m^2

4. 80 cm

5. Answers will vary; e.g. seat height to check comfort and desk height to check fit.

WELL DONE, MEASUREMENT EXPLORER!

You have used measurement to solve problems involving length, mass, capacity, area, temperature and time. Keep looking for maths in the world around you!