WORKSHEET 27

Year 5 Mathematics — Australian Curriculum v9.0

Measurement: Length, Mass & Volume

Curriculum Code: AC9M5M01

Name: _____ *Date:* _____

Section 1: Fluency — Choosing Appropriate Units

Choose the most appropriate unit to measure each item.

1. What unit would you use to measure the length of a pencil?
Circle one: mm   cm   m   km

2. What unit would you use to measure the distance between Sydney and Melbourne?
Circle one: mm   cm   m   km

3. What unit would you use to measure the mass of a car?
Circle one: g   kg   t

4. What unit would you use to measure the capacity of a teaspoon?
Circle one: mL   L   kL

1

5. What unit would you use to measure the length of a football field?

Circle one: mm   cm   m   km

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6. What unit would you use to measure the mass of a bag of sugar?

Circle one: g   kg   t

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7. What unit would you use to measure the capacity of a swimming pool?

Circle one: mL   L   kL

Unit Master!

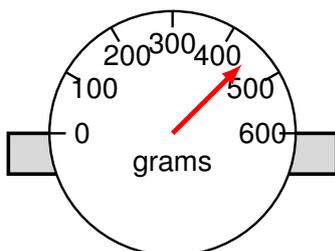Great work choosing the right units for measurement!

Joke: Why did the ruler go to school? To get a little more measured!

Section 2: Reasoning — Reading Scales & Converting Units

Read the scales and convert between units.

8. Look at the kitchen scale below. What mass is shown?

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Answer: _____

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9. Convert 3 kilograms to grams.

| kg | $\xrightarrow{\times 1000}$ | g |

Answer: _____

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10. Convert 250 centimetres to metres.

Answer: _____

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11. Convert 5000 millilitres to litres.

Answer: _____

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12. A rope is 4 metres long. How many centimetres is that?

Answer: _____

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13. A bag of rice weighs 2500 grams. What is its mass in kilograms?

Answer: _____

14. A bottle holds 1.5 litres of water. How many millilitres is that?

Answer: _____

Conversion Champion!

You've mastered moving between units like a pro!

Joke: Why did the kilogram break up with the gram? It needed more space!

Section 3: Challenge — Expressing in Multiple Units & Problem Solving

Apply your measurement skills to solve these challenge problems.

15. A student is 155 centimetres tall. Express this height in metres and centimetres.

Answer: _____

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16. A car travels 2.5 kilometres. How many metres is that?

Answer: _____

17. A jug holds 3 litres and 250 millilitres. Express this capacity in millilitres only.

Answer: _____

18. A truck weighs 3 tonnes and 500 kilograms. What is its total mass in kilograms?

Answer: _____

19. A ribbon is 85 millimetres long. Express this length in centimetres and millimetres.

Answer: _____

20. A recipe requires 0.75 litres of milk. How many millilitres is that?

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Answer: _____

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21. A box weighs 1 kilogram and 750 grams. Express this mass in grams only.

Answer: _____

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22. A swimming pool contains 8500 litres of water. How many kilolitres is that?

Answer: _____

Measurement Master!

Outstanding! You can express measurements in multiple units with ease!

Joke: What did the metre say to the centimetre? You're just a fraction of me!

End of Worksheet 27

Well done! Check your answers on the next page.

WORKSHEET 27 — ANSWER KEY
Year 5 Mathematics — Measurement
AC9M5M01: Length, Mass & Volume

Section 1: Fluency — Choosing Appropriate Units

1. cm

2. km

3. t (tonnes)

4. mL

5. m

6. kg

7. kL

Section 2: Reasoning — Reading Scales & Converting Units

8. 450 g

9. 3000 g (3 kg $\times$ 1000 = 3000 g)

10. 2.5 m (250 cm $\div$ 100 = 2.5 m)

11. 5 L (5000 mL $\div$ 1000 = 5 L)

12. 400 cm (4 m $\times$ 100 = 400 cm)

13. 2.5 kg (2500 g $\div$ 1000 = 2.5 kg)

14. 1500 mL (1.5 L $\times$ 1000 = 1500 mL)

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Section 3: Challenge — Expressing in Multiple Units & Problem Solving

15. 1 m and 55 cm (155 cm = 1 m + 55 cm)

16. 2500 m (2.5 km × 1000 = 2500 m)

17. 3250 mL (3 L = 3000 mL; 3000 mL + 250 mL = 3250 mL)

18. 3500 kg (3 t = 3000 kg; 3000 kg + 500 kg = 3500 kg)

19. 8 cm and 5 mm (85 mm = 8 cm + 5 mm)

20. 750 mL (0.75 L × 1000 = 750 mL)

21. 1750 g (1 kg = 1000 g; 1000 g + 750 g = 1750 g)

22. 8.5 kL (8500 L ÷ 1000 = 8.5 kL)

Great work on Worksheet 27!

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WORKSHEET 28

Year 5 Mathematics — Australian Curriculum v9.0

Measurement: Capacity & Mass Problem Solving

Curriculum Code: AC9M5M01

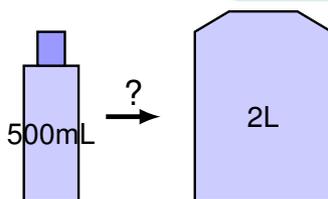*Name:* _____   *Date:* _____

Section 1: Fluency — Capacity Estimations & Comparisons

Estimate and compare capacities and masses.

1. Which is larger: 250 mL or 2.5 L?

Answer: _____

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2. How many 500 mL bottles do you need to fill a 2 litre jug?

500mL ?→ 2L

Answer: _____

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3. A milk carton holds 1 litre. How many millilitres is that?

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Answer: _____

4. Which is heavier: 1500 grams or 1 kilogram?

Answer: _____

5. A water bottle holds 600 mL. How many litres is that?

Answer: _____

6. A bag of potatoes weighs 5 kg. How many grams is that?

Answer: _____

7. Which holds more: a 750 mL bottle or a 1 L bottle?

Answer: _____

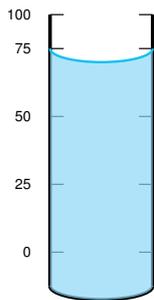www.merittutoring.com

Capacity Champion!

You're brilliant at comparing and estimating capacities!

Joke: Why did the litre go to school? To become a little more literate!

Section 2: Reasoning — Measuring & Calculating

Read measurements and solve problems.

8. A measuring cylinder shows 75 mL of water. How much more water is needed to reach 100 mL?

Answer: _____

_____

9. A baker uses 1.5 kg of flour for a cake. How many grams is that?

Answer: _____

_____

10. A fish tank holds 50 litres of water. How many millilitres is that?

Answer: _____

11. A parcel weighs 2 kg and 300 g. What is its total mass in grams?

Answer: _____

12. A petrol tank holds 45 litres. If 12 litres have been used, how many litres remain?

Answer: _____

13. A recipe calls for 250 mL of milk. You only have a 2 L carton. How many times can you make the recipe?

Answer: _____

14. A melon weighs 800 g. Express this mass in kilograms and grams.

Answer: _____

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> ### Measuring Marvellous!
>
> You've solved measurement problems like a real mathematician!
>
> *Joke: What's a measuring cup's favorite subject? Maths, because it's full of solutions!*

Section 3: Challenge — Real-World Applications

Apply your knowledge to solve real-world measurement problems.

15. A baker has 1.5 kg of flour. She uses 800 g to make bread. How much flour is left in grams?

Answer: _____

16. A swimming pool holds 500 litres of water. If the pool is losing 10 litres per hour due to evaporation, how much water will be left after 5 hours?

Answer: _____

17. A truck is carrying 3 crates. Each crate weighs 250 kg. What is the total mass in kilograms?

Answer: _____

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18. A juice factory bottles 12,000 litres of juice. Each bottle holds 2 litres. How many bottles can they fill?

Answer: _____

19. A farmer has 4.5 tonnes of grain. He sells 1500 kg. How many kilograms of grain does he have left?
(Remember: 1 tonne = 1000 kg)

Answer: _____

20. A restaurant uses 3 litres and 500 mL of oil per day. How many millilitres do they use in one week (7 days)?

Answer: _____

21. A delivery van can carry a maximum of 2 tonnes. If it already has 1200 kg loaded, how many more kilograms can it carry?
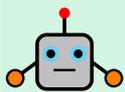
Answer: _____

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22. A rain gauge collected 85 mm of rain in January and 120 mm in February. What was the total rainfall in millimetres?

Answer: _____

Real-World Genius!

Fantastic! You can apply measurement skills to solve practical problems!

Joke: Why did the measurement bring a ladder? To reach new heights!

End of Worksheet 28

Excellent work! Check your answers on the next page.

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WORKSHEET 28 — ANSWER KEY

Year 5 Mathematics — Measurement

AC9M5M01: Capacity & Mass Problem Solving

Section 1: Fluency — Capacity Estimations & Comparisons

1. 2.5 L

2. 4 bottles (2 L ÷ 0.5 L = 4)

3. 1000 mL

4. 1500 grams

5. 0.6 L (600 mL ÷ 1000 = 0.6 L)

6. 5000 g

7. 1 L bottle

Section 2: Reasoning — Measuring & Calculating

8. 25 mL (100 mL − 75 mL = 25 mL)

9. 1500 g (1.5 kg × 1000 = 1500 g)

10. 50,000 mL (50 L × 1000 = 50,000 mL)

11. 2300 g (2000 g + 300 g = 2300 g)

12. 33 L (45 L − 12 L = 33 L)

13. 8 times (2000 mL ÷ 250 mL = 8)

14. 0 kg and 800 g (or 0.8 kg)

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Section 3: Challenge — Real-World Applications

15. 700 g (1.5 kg = 1500 g; 1500 g − 800 g = 700 g)

16. 450 L (10 L × 5 hours = 50 L lost; 500 L − 50 L = 450 L)

17. 750 kg (250 kg × 3 = 750 kg)

18. 6000 bottles (12,000 L ÷ 2 L = 6000)

19. 3000 kg (4.5 t = 4500 kg; 4500 kg − 1500 kg = 3000 kg)

20. 24,500 mL (3 L and 500 mL = 3500 mL; 3500 mL × 7 = 24,500 mL)

21. 800 kg (2 t = 2000 kg; 2000 kg − 1200 kg = 800 kg)

22. 205 mm (85 mm + 120 mm = 205 mm)

Congratulations on completing Worksheet 28!

You've mastered measurement problem-solving!

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