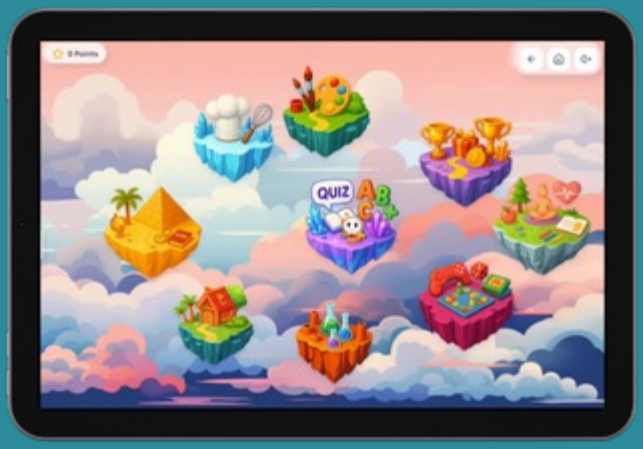

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Mass - Year 4

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Measuring Mass

Mass tells us how heavy an object, substance or person is.

milligrams (mg)

grams (g)

kilograms (kg)

tonnes (t)

1000 mg = 1 g → 1000 g = 1 kg → 1000 kg = 1 t

CHOOSE WISELY

Choose the unit that makes the measurement easy to read.

SCALES TO KNOW

Digital scales show numbers.

Analogue scales use tick marks and partial divisions.

REMEMBER

Mass does not change, even if the shape or size of an object changes.

PREVIEW

Sukindi LEARNING

Mass Measurement
Quick Guide

1. Units of mass

mg
for tiny masses

g
for small everyday items

kg
for heavier everyday items

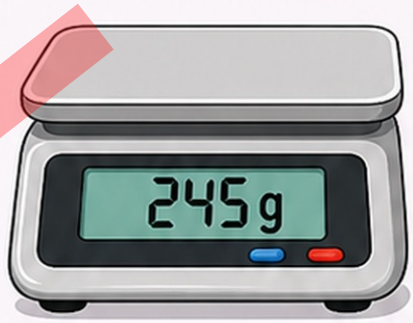
t
for very heavy objects

2. Convert

1000 mg = 1 g ➡ 1000 g = 1 kg ➡ 1000 kg = 1 t

3. Reading scales

- Find the labelled marks.
- Work out the value of each small division.
- Count carefully to the pointer.



4. Choosing a unit

Use grams for a pencil case.

Use kilograms for a school bag.

Use tonnes for a truck.

5. Comparing mass

Convert to the same unit first when needed, then compare using <, > or =.

< less than

> greater than

= equal to

PREVIEW

Sukindi LEARNING

Mass Unit Match

Cut, sort and justify your choices. Some objects can be discussed.

milligrams (mg)	grams (g)	kilograms (kg)	tonnes (t)

grain of rice

butterfly wing

paper clip

pencil

apple

glue stick

loaf of bread

lunchbox

cat

school bag

suitcase

bicycle

car

horse

truck

whale

PREVIEW

Sukindi LEARNING

I Have, Who Has? Mass Chain

1 I have 500 g.

Who has 1 kg?

2 I have 1 kg.

Who has 250 g?

3 I have 250 g.

Who has 2.5 kg?

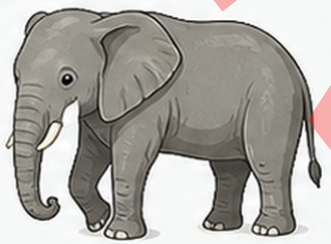
4 I have 2.5 kg.

Who has 750 g?

5 I have 750 g.

Who has 1000 kg?

6 I have 1 tonne.



Who has 4 kg?

7 I have 4 kg.

Who has 350 g?

8 I have 350 g.

Who has 0.5 kg?

9 I have 0.5 kg.

Who has 3 tonnes?

10 I have 3 tonnes.

Who has 125 g?

11 I have 125 g.

Who has 1.2 kg?

12 I have 1.2 kg.

Who has 500 g?

PREVIEW

Sukindi LEARNING

Scale Station Task Cards

Cut out the task cards. Solve each one and record your answer and reason in the table below.

1 Best Unit:

feather – mg, g, kg or t?

2 Best Unit:

school bag – mg, g, kg or t?

3 Read It:

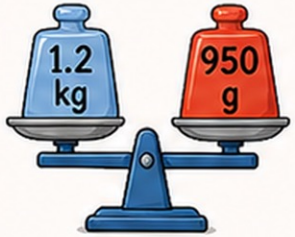
digital scale shows 3.4 kg.

4 Read It:

digital scale shows 680 g.

5 Compare:

1.2 kg or 950 g?



6 Compare:

2 tonnes or 1800 kg?

7 Convert:

3500 g = ____ kg.

8 Explain:

Why would we not measure a truck in grams?

Card	Answer	Reason
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		

PREVIEW

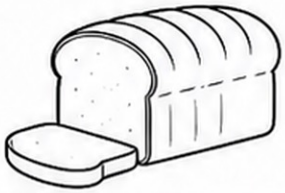
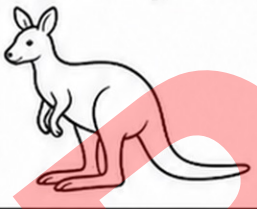
Sukindi LEARNING

Name: _____

Choose the Best Unit

Choose the most appropriate unit of mass for each item: mg, g, kg or t.
Then explain two choices.

Part A: Choose the best unit of mass for each item.

1. grain of sand Unit: _____	**2.** postage stamp Unit: _____	**3.** pencil Unit: _____	**4.** orange Unit: _____
5. loaf of bread  Unit: _____	**6.** kitten Unit: _____	**7.** school bag Unit: _____	**8.** suitcase Unit: _____
9. adult kangaroo  Unit: _____	**10.** small car Unit: _____	**11.** delivery truck Unit: _____	**12.** blue whale Unit: _____

Part B: Complete the conversions.

1. 1000 mg = _____ g
2. 1000 g = _____ kg
3. 1000 kg = _____ t
4. 2 kg = _____ g
5. 3.5 kg = _____ g
6. 4500 g = _____ kg

Part C: Explain one item that would be measured in grams and one item that would be measured in tonnes.

_____

_____

_____

_____

PREVIEW

Sukindi LEARNING

ANSWERS

Choose the Best Unit

Choose the most appropriate unit of mass for each item: mg, g, kg or t.
Then explain two choices.

Part A: Choose the best unit of mass for each item.

1. grain of sand

Unit: mg

2. postage stamp

Unit: g

3. pencil

Unit: g

4. orange

Unit: g

5. loaf of bread

Unit: g

6. kitten

Unit: kg

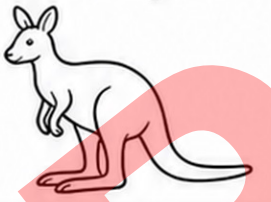
7. school bag

Unit: kg

8. suitcase

Unit: kg

9. adult kangaroo



Unit: kg

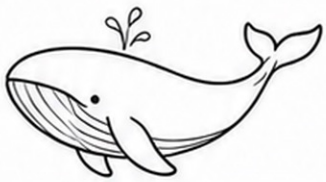
10. small car

Unit: t

11. delivery truck

Unit: t

12. blue whale



Unit: t

Part B: Complete the conversions.

1. 1000 mg = 1 g
2. 1000 g = 1 kg
3. 1000 kg = 1 t
4. 2 kg = 2000 g
5. 3.5 kg = 3500 g
6. 4500 g = 4.5 kg

Part C: Explain one item that would be measured in grams and one item that would be measured in tonnes.

An orange is measured in grams because it is a small everyday item.

A truck is measured in tonnes because it is very heavy.

PREVIEW

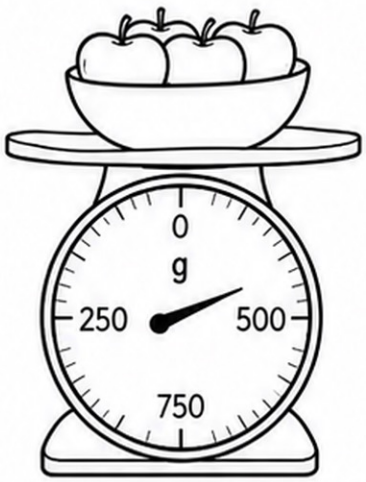
Sukindi LEARNING

Name: _____

Scale Detective: Reading Mass

Read each scale carefully. Use the marked units and partial divisions to record each mass.

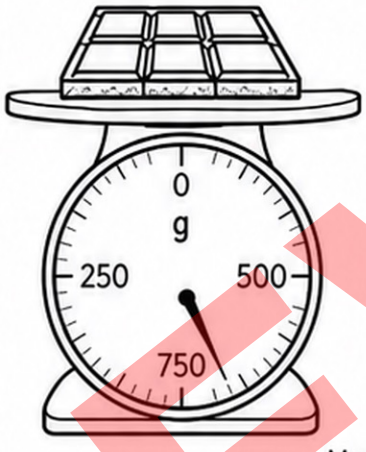
1.



apples

Mass: _____

2.



chocolate bar

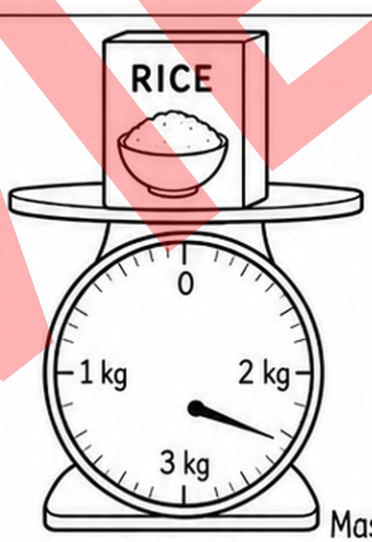
Mass: _____

3.

flour

Mass: _____

4.



rice

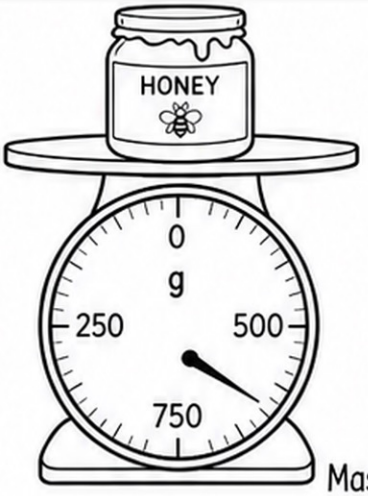
Mass: _____

5.

pumpkin

Mass: _____

6.



honey

Mass: _____

Challenge: Explain how you worked out one reading.

_____

_____

_____

PREVIEW

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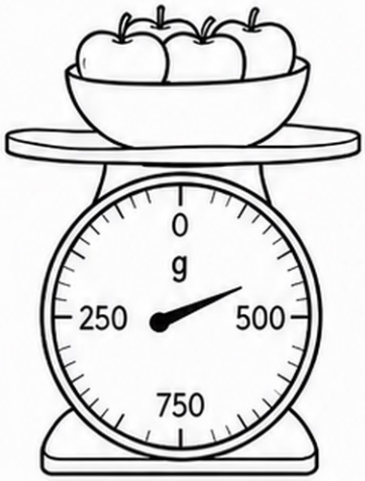
ANSWERS

Scale Detective: Reading Mass

Read each scale carefully. Use the marked units and partial divisions to record each mass.

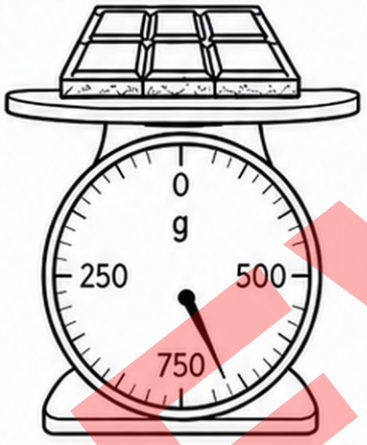
1.



apples

Mass: 350 g

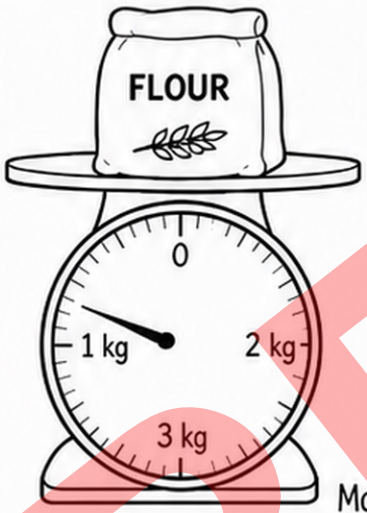
2.



chocolate bar

Mass: 750 g

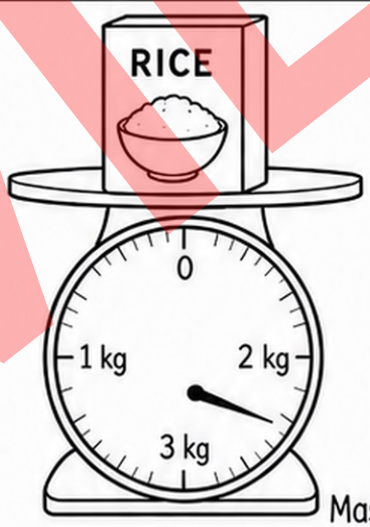
3.



flour

Mass: 1.2 kg

4.



rice

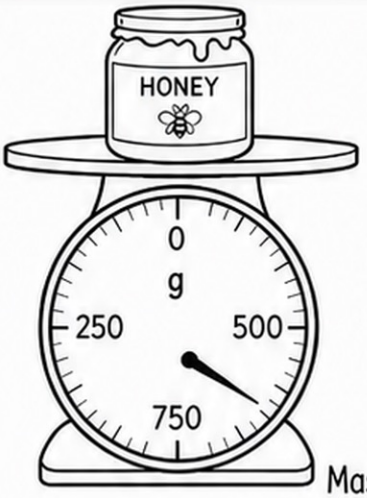
Mass: 2.5 kg

5.

pumpkin

Mass: 4.75 kg

6.



honey

Mass: 680 g

Challenge: Explain how you worked out one reading.

I counted the tick marks between the labelled numbers.

PREVIEW

Sukindi LEARNING

Name: _____

Convert and Compare Mass

Convert where needed, then compare the masses using <, > or =.

Part A: Convert.

1. 2000 g = _____ kg
2. 4500 g = _____ kg
3. 3 kg = _____ g
4. 2.75 kg = _____ g
5. 3000 kg = _____ t
6. 1.5 t = _____ kg

Part B: Compare using <, > or =.

1. 950 g ☐ 1 kg
2. 2.5 kg ☐ 2500 g
3. 3.2 kg ☐ 320 g
4. 1500 kg ☐ 1.5 t
5. 750 g ☐ 0.7 kg
6. 4 t ☐ 3900 kg

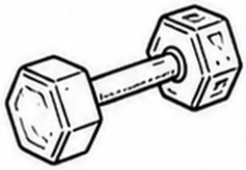
Part C: Order from lightest to heaviest: 1.2 kg, 950 g, 1.05 kg, 800 g.

1. _____ 2. _____ 3. _____ 4. _____

800 g

950 g

1.05 kg



1.2 kg

PREVIEW

Sukindi LEARNING

ANSWERS

Convert and Compare Mass

Convert where needed, then compare the masses using <, > or =.

Part A: Convert.

1. 2000 g = 2 kg
2. 4500 g = 4.5 kg
3. 3 kg = 3000 g
4. 2.75 kg = 2750 g
5. 3000 kg = 3 t
6. 1.5 t = 1500 kg

Part B: Compare using <, > or =.

1. 950 g [<] 1 kg
2. 2.5 kg [=] 2500 g
3. 3.2 kg [>] 320 g
4. 1500 kg [=] 1.5 t
5. 750 g [>] 0.7 kg
6. 4 t [>] 3900 kg

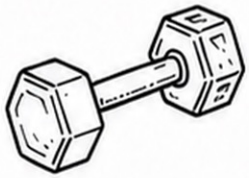
Part C: Order from lightest to heaviest: 1.2 kg, 950 g, 1.05 kg, 800 g.

1. 800 g
2. 950 g
3. 1.05 kg
4. 1.2 kg

800 g

950 g

1.05 kg



1.2 kg

PREVIEW

Sukindi LEARNING

Name: _____

Digital or Analogue?

Read the display or scale. Then choose the most sensible instrument.

Part A: Read the digital scales.

1. parcel

Mass: _____

2. melon

Mass: _____

3. glue stick

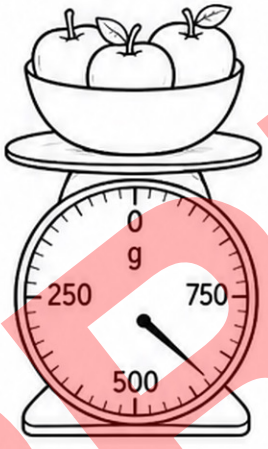
Mass: _____

4. bucket

Mass: _____

Part B: Read the analogue scales.

5. apples

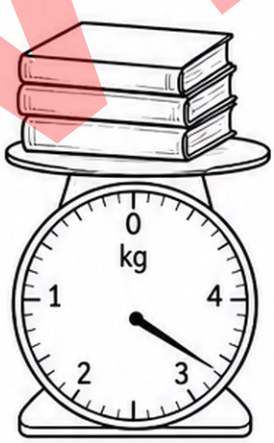


Mass: _____

6. rice bag

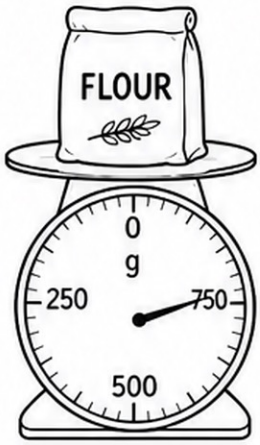
Mass: _____

7. books



Mass: _____

8. flour



Mass: _____

Part C: Choose the best instrument.

kitchen scale • bathroom scale • luggage scale • truck weighbridge

1. adult person

Best instrument: _____

2. suitcase

Best instrument: _____

3. cupcake ingredients

Best instrument: _____

4. delivery truck

Best instrument: _____

PREVIEW

Sukindi LEARNING

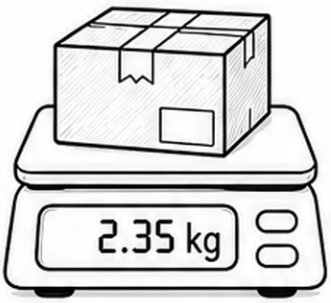
ANSWERS

Digital or Analogue?

Read the display or scale. Then choose the most sensible instrument.

Part A: Read the digital scales.

1. parcel

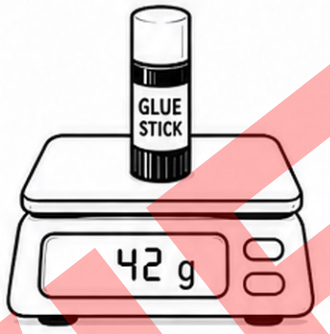


Mass: 2.35 kg

2. melon

Mass: 4.8 kg

3. glue stick



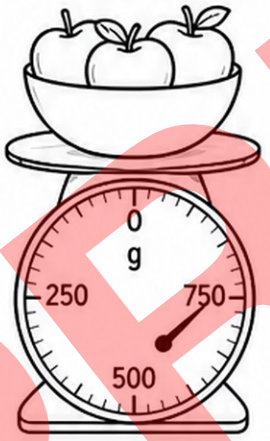
Mass: 42 g

4. bucket

Mass: 1.25 kg

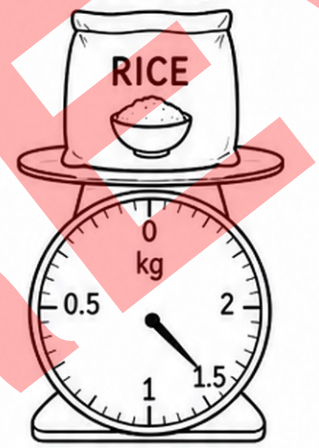
Part B: Read the analogue scales.

5. apples



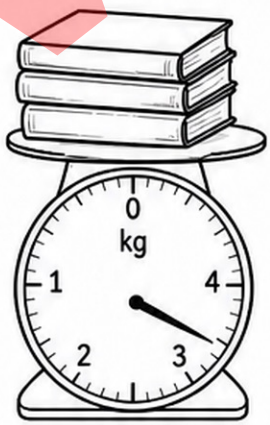
Mass: 600 g

6. rice bag



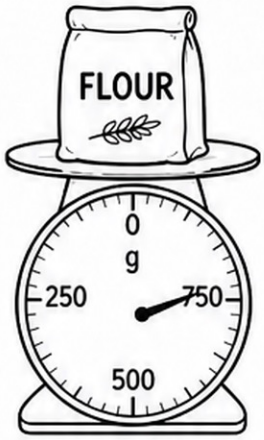
Mass: 1.5 kg

7. books



Mass: 3.25 kg

8. flour



Mass: 750 g

Part C: Choose the best instrument.

kitchen scale • bathroom scale • luggage scale • truck weighbridge

1. adult person

Best instrument: bathroom scale

2. suitcase

Best instrument: luggage scale

3. cupcake ingredients

Best instrument: kitchen scale

4. delivery truck

Best instrument: truck weighbridge

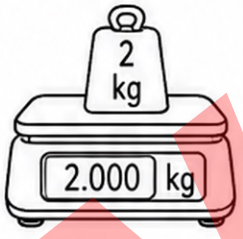
PREVIEW

Sukindi LEARNING

Name: _____

Compare and Order Mass

Convert to the same unit when it helps. Use <, > or =, then order the



Part A: Write <, > or = in the box.

1.	1.4 kg	☐ 1400 g	**4.**	3750 g	☐ 3.5 kg
2.	850 g	☐ 0.9 kg	**5.**	0.25 kg	☐ 250 g
3.	2 tonnes	☐ 2050 kg	**6.**	4.2 t	☐ 4200 kg

Part B: Order each set from lightest to heaviest.

Set 1: 600 g, 1 kg, 750 g, 0.5 kg

1. _____ **2.** _____ **3.** _____ **4.** _____

Set 2: 2.2 kg, 1800 g, 2 kg, 2500 g

1. _____ **2.** _____ **3.** _____ **4.** _____

Set 3: 1.5 t, 1400 kg, 2 t, 950 kg

1. _____ **2.** _____ **3.** _____ **4.** _____

Part C: Why is it useful to convert measurements before comparing?

_____

_____

_____

PREVIEW

Sukindi LEARNING

ANSWERS

Compare and Order Mass

Convert to the same unit when it helps. Use <, > or =, then order the

Part A: Write <, > or = in the box.

1.	1.4 kg	=	1400 g	**4.**	3750 g	>	3.5 kg
2.	850 g	<	0.9 kg	**5.**	0.25 kg	=	250 g
3.	2 tonnes	<	2050 kg	**6.**	4.2 t	=	4200 kg

Part B: Order each set from lightest to heaviest.

Set 1: 600 g, 1 kg, 750 g, 0.5 kg

1. 0.5 kg **2.** 600 g **3.** 750 g **4.** 1 kg

Set 2: 2.2 kg, 1800 g, 2 kg, 2500 g

1. 1800 g **2.** 2 kg **3.** 2.2 kg **4.** 2500 g

Set 3: 1.5 t, 1400 kg, 2 t, 950 kg

1. 950 kg **2.** 1400 kg **3.** 1.5 t **4.** 2 t

Part C: Why is it useful to convert measurements before comparing?

It makes the numbers easier to compare because they are in the same unit.

PREVIEW

Sukindi LEARNING

Name: _____

Mass Problem Solvers

Solve each mass problem. Show a conversion or comparison when it helps.

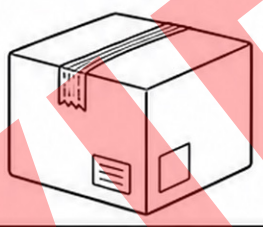
1. Mia's lunchbox has a mass of 850 g.
Her water bottle has a mass of 1.1 kg.
Which has the greater mass?

_____

_____

_____

2. A parcel has a mass of 2.75 kg.
Write this mass in grams.



_____ g

3. A bag of soil has a mass of 4500 g.
Write this mass in kilograms.

_____ kg

4. A delivery van can carry 2 tonnes.
It is loaded with 1600 kg of boxes.
How many kilograms can still be added?

_____ kg

5. Order these fruit boxes from lightest to heaviest:
1.2 kg, 950 g, 1.05 kg.

_____ , _____ , _____

6. A digital scale shows 0.65 kg.
Explain why 650 g is the same mass.

_____

_____

_____

_____

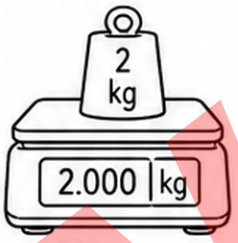
PREVIEW

Sukindi LEARNING

ANSWERS

Mass Problem Solvers

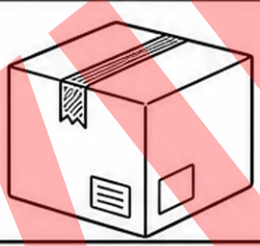
Solve each mass problem. Show a conversion or comparison when it helps.



1. Mia's lunchbox has a mass of 850 g.
Her water bottle has a mass of 1.1 kg.
Which has the greater mass?

water bottle, because 1.1 kg = 1100 g and 1100 g > 850 g.

2. A parcel has a mass of 2.75 kg.
Write this mass in grams.



2750 g

3. A bag of soil has a mass of 4500 g.
Write this mass in kilograms.

4.5 kg

4. A delivery van can carry 2 tonnes.
It is loaded with 1600 kg of boxes.
How many kilograms can still be added?

400 kg

5. Order these fruit boxes from lightest to heaviest:
1.2 kg, 950 g, 1.05 kg.

950 g , 1.05 kg , 1.2 kg

6. A digital scale shows 0.65 kg.
Explain why 650 g is the same mass.

0.65 kg = 650 g because 1 kg = 1000 g, so 0.65 kg is 65 hundredths of a kilogram.

PREVIEW

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Name: _____

Score: ___ / 20

Measuring Mass Assessment - Page 1

Scenario: You are helping organise the school market stall.

1. Circle the best unit for each item.

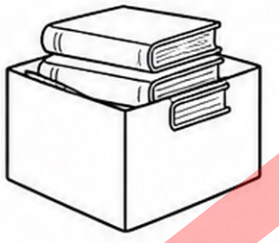
a) paper clip

mg / g / kg / t

b) bag of apples

mg / g / kg / t

c) box of books



mg / g / kg / t

d) delivery truck

mg / g / kg / t

2. Complete the conversions.

a) 3 kg = _____ g

b) 2750 g = _____ kg

c) 1.5 t = _____ kg

d) 4200 kg = _____ t

3. Write <, > or = in the box.

a) 950 g ☐ 1 kg

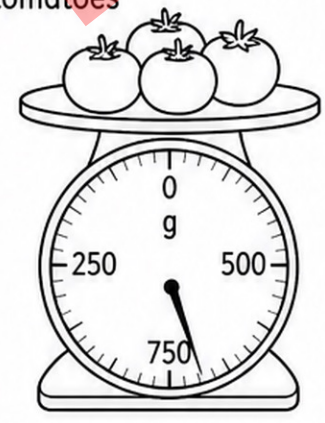
b) 2.5 kg ☐ 2500 g

c) 1.8 t ☐ 1800 kg

d) 4 t ☐ 3900 kg

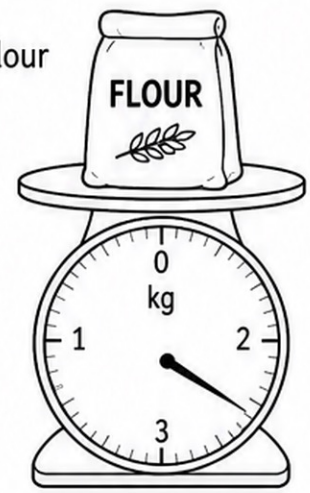
4. Read the scale. Write the mass shown.

a) tomatoes



Mass: _____ g

b) flour



Mass: _____ kg

PREVIEW

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Name: _____

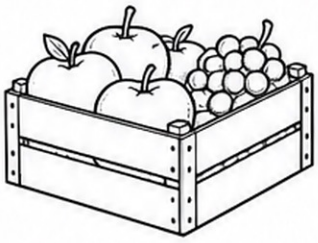
Score: ___ / 20

Measuring Mass Assessment - Page 2

Scenario: Continue helping at the school market stall.

5. Order these items from lightest to heaviest.

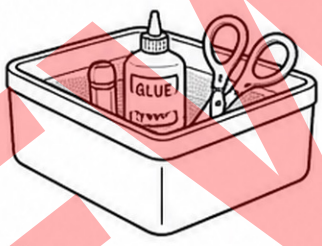
1.2 kg
fruit box



950 g
snack box

1.05 kg
bread basket

800 g
craft box



1. _____ **2.** _____ **3.** _____ **4.** _____

6. A stall table can safely hold 10 kg.
Three boxes have masses of 2.5 kg, 3.75 kg and 1800 g.
What is their total mass in kilograms?
Is the table safe?
Show working.

Total mass: _____ kg

Is the table safe? Yes / No

Explain your answer.

_____

_____

_____

7. Choose the best measuring instrument for each item.

kitchen scale • bathroom scale • luggage scale • truck weighbridge

a) cupcake ingredients

Best instrument: _____

b) a student's body mass

Best instrument: _____

c) a suitcase

Best instrument: _____

d) a loaded truck

Best instrument: _____

8. **Explain:** How can you read an unmarked or partially marked scale accurately?

_____

_____

_____

PREVIEW

Sukindi LEARNING

ANSWERS

Score: ____ / 20

Measuring Mass Assessment - Page 1

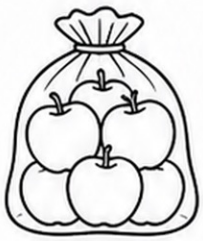
Scenario: You are helping organise the school market stall.

1. Circle the best unit for each item.

a) paper clip

mg / (g) / kg / t

b) bag of apples



mg / g / (kg) / t

c) box of books

mg / g / (kg) / t

d) delivery truck

mg / g / kg / (t)

2. Complete the conversions.

a) 3 kg = 3000 g

b) 2750 g = 2.75 kg

c) 1.5 t = 1500 kg

d) 4200 kg = 4.2 t

3. Write <, > or = in the box.

a) 950 g [<] 1 kg

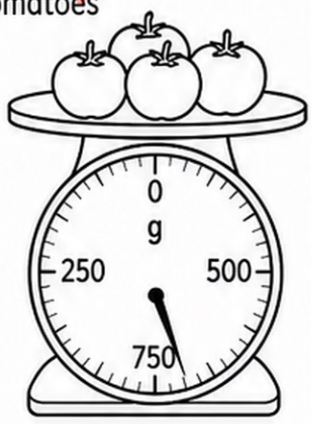
b) 2.5 kg [=] 2500 g

c) 1.8 t [=] 1800 kg

d) 4 t [>] 3900 kg

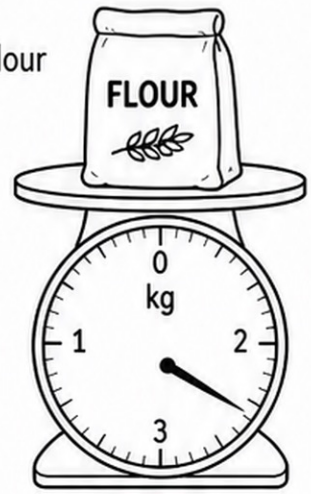
4. Read the scale. Write the mass shown.

a) tomatoes



Mass: 750 g

b) flour



Mass: 2.25 kg

PREVIEW

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ANSWERS

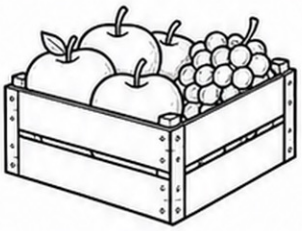
Score: ____ / 20

Measuring Mass Assessment - Page 2

Scenario: Continue helping at the school market stall.

5. Order these items from lightest to heaviest.

1.2 kg
fruit box



950 g
snack box

1.05 kg
bread basket

800 g
craft box

1. 800 g 2. 950 g 3. 1.05 kg 4. 1.2 kg

6. A stall table can safely hold 10 kg.
Three boxes have masses of 2.5 kg, 3.75 kg and 1800 g.
What is their total mass in kilograms?
Is the table safe?
Show working.

1800 g = 1.8 kg
2.5 + 3.75 + 1.8 = 8.05 kg

Total mass: 8.05 kg

Is the table safe? Yes / No

Explain your answer.

8.05 kg is less than 10 kg.

7. Choose the best measuring instrument for each item.

kitchen scale • bathroom scale • luggage scale • truck weighbridge

a) cupcake ingredients

Best instrument: kitchen scale

b) a student's body mass

Best instrument: bathroom scale

c) a suitcase

Best instrument: luggage scale

d) a loaded truck

Best instrument: truck weighbridge

8. **Explain:** How can you read an unmarked or partially marked scale accurately?

Find the labelled marks, work out the value of each small division, then count carefully to the pointer.

PREVIEW

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Mass - Year 4 Rubric

Name: _____ Date: _____

CRITERIA	BEGINNING	DEVELOPING	ACHIEVING	CONFIDENT	EXCEEDING
1. Selects appropriate mass units	needs support, frequent errors.	partial skill, some errors.	accurate for familiar Year 4 tasks.	accurate and independent.	explains, checks and transfers the skill.
2. Reads digital and analogue scales	needs support, frequent errors.	partial skill, some errors.	accurate for familiar Year 4 tasks.	accurate and independent.	explains, checks and transfers the skill.
3. Converts between mass units	needs support, frequent errors.	partial skill, some errors.	accurate for familiar Year 4 tasks.	accurate and independent.	explains, checks and transfers the skill.
4. Compares and orders masses	needs support, frequent errors.	partial skill, some errors.	accurate for familiar Year 4 tasks.	accurate and independent.	explains, checks and transfers the skill.
5. Explains measurement reasoning	needs support, frequent errors.	partial skill, some errors.	accurate for familiar Year 4 tasks.	accurate and independent.	explains, checks and transfers the skill.

Teacher Comments:

_____

_____

_____

_____

Next Steps:

_____

_____

_____

_____

PREVIEW

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Mass - Year 4

PREVIEW

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What Is Mass?

Mass tells us how heavy an object, substance or person is.

We can compare, measure and record mass.

This unit focuses on choosing units and reading scales accurately.

PREVIEW

Units of Mass

Milligrams (mg) measure tiny masses.

Grams (g) measure small everyday masses.

Kilograms (kg) measure heavier everyday masses.

Tonnes (t) measure very heavy masses.

PREVIEW

Conversion Facts

1000 milligrams = 1 gram.

1000 grams = 1 kilogram.

1000 kilograms = 1 tonne.

These facts help us compare and rename measurements.

PREVIEW

Choose a Sensible Unit

A pencil is easier to describe in grams than kilograms.

A school bag is usually measured in kilograms.

A truck is easier to describe in tonnes than grams.

PREVIEW

Digital Scales

Digital scales show numbers directly.

Always read the unit shown on the display.

A display might show 680 g, 2.35 kg or 0.65 kg.

PREVIEW

Analogue Scales

Analogue scales use tick marks and a pointer.

Start with the labelled marks.

Work out what each small division is worth.

PREVIEW

Partial Divisions

Some scales do not label every value.

If 0 and 1 kg are split into five equal spaces, each space is 200 g.

Counting partial divisions helps you read accurately.

PREVIEW

Measuring Instruments

Kitchen scales suit ingredients and small parcels.

Bathroom scales suit body mass.

Luggage scales suit bags and suitcases.

Truck weighbridges suit very heavy vehicles.

PREVIEW

Compare the Same Unit

Comparing is easiest when measurements use the same unit.

1 kg is the same as 1000 g.

So 950 g is less than 1 kg.

PREVIEW

Use Symbols

Use < for less than.

Use > for greater than.

Use = when two masses are equal after conversion.

PREVIEW

Ordering Masses

Convert first if needed.

Then list measurements from lightest to heaviest or heaviest to lightest.

Check each value before writing the final order.

PREVIEW

Reason About Mass

A good answer includes more than a number.

Explain which unit, conversion or scale mark helped you.

This shows how you know your answer is reasonable.

PREVIEW

Common Mistakes

Do not compare just the digits.

Do not forget the unit.

Do not assume a large object always has the greatest mass.

Read the scale and unit carefully.

PREVIEW

This Week

Use mass unit cards and task stations.

Practise reading digital and analogue scales.

Convert, compare and order masses.

Show your reasoning in the assessment.

PREVIEW

Review

Choose sensible units.

Read marked and partially marked scales.

Convert between mass units.

Compare, order and explain measurements of mass.

PREVIEW

Well Done!

PREVIEW

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Mass - Year 4 Quiz

PREVIEW

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Question 1

Which unit is most sensible for the mass of a delivery truck?

A. mg

B. g

C. kg

D. t

PREVIEW

Answer I

D. t

PREVIEW

Question 2

True or false?

1000 grams is equal to 1 kilogram.

PREVIEW

Answer 2

True.

PREVIEW

Question 3

A digital scale shows 2.35 kg.

Write the mass.

PREVIEW

Answer 3

2.35 kg

PREVIEW

Question 4

Which mass is greater?

A. 950 g

B. 1 kg

C. 0.8 kg

D. 900 g

PREVIEW

Answer 4

B. 1 kg

PREVIEW

Question 5

True or false?

A truck weighbridge is a sensible instrument for measuring a glue stick.

PREVIEW

Answer 5

False. A small scale is more sensible.

PREVIEW

Question 6

Convert 4500 g to kilograms.

PREVIEW

Answer 6

4.5 kg

PREVIEW

Question 7

Which comparison is correct?

A. 750 g > 1 kg

B. 2.5 kg = 2500 g

C. 4 t < 3900 kg

D. 0.25 kg > 500 g

PREVIEW

Answer 7

B. 2.5 kg = 2500 g

PREVIEW

Question 8

True or false?

When reading an analogue scale, small divisions can help you find unlabelled values.

PREVIEW

Answer 8

True.

PREVIEW

Question 9

Order from lightest to heaviest:

1.2 kg, 950 g, 1.05 kg

PREVIEW

Answer 9

950 g, 1.05 kg, 1.2 kg

PREVIEW

Question 10

A table can hold 10 kg. Boxes weigh 2.5 kg, 3.75 kg and 1.8 kg.

Is the table safe?

A. Yes

B. No

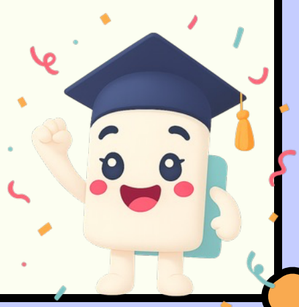
C. Only if one box is removed

D. Cannot tell

PREVIEW

Answer 10

A. Yes. The total is 8.05 kg, which is less than 10 kg.



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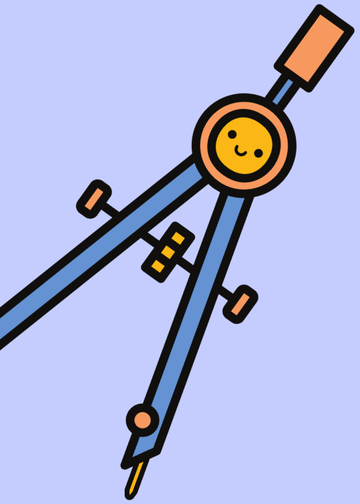
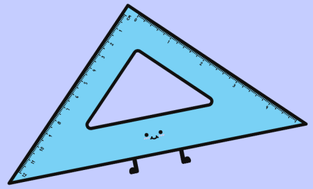
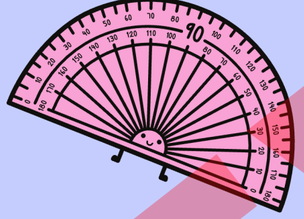
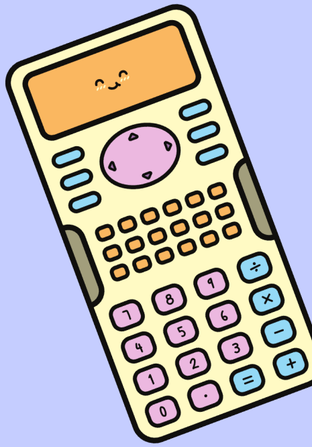
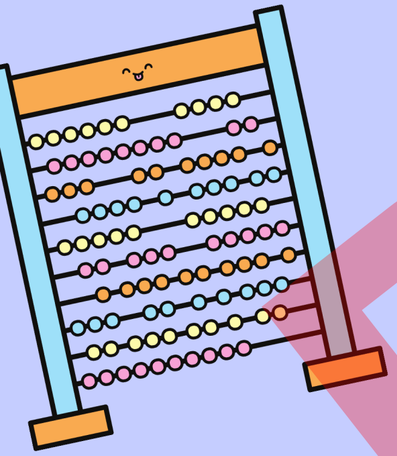
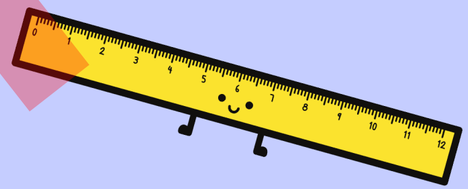
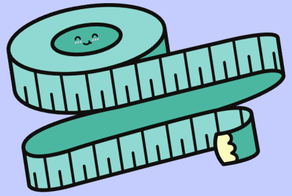
Great Work!

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