Name: _____ Class: _____ Date: _____

Consolidation Worksheet 1

What Is Matter?

Tick (✓) the boxes next to the statements that are TRUE.

1.	Matter is anything that has mass and occupies space.	
2.	Only living things are matter.	
3.	A mass balance can be used to measure the mass of matter.	
4.	Mass can be measured in litres.	
5.	A measuring cylinder can be used to measure the volume of a liquid.	
6.	Air occupies space.	
7.	The displacement method is used to measure the volume of an object with irregular shape.	
8.	To measure the volume of water in a measuring cylinder, your eye must be level with the top of the meniscus.	

Unscramble the words below to complete the sentences.

Non-matter does not have _____ (sasm) and does not occupy _____ (ecaps). Examples of non-matter include _____ (ilhtg), _____ (udnos), _____ (etah) and _____ (dwassho).

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Name: _____ Class: _____ Date: _____

Consolidation Worksheet 2

What Is Matter Made of?

1. What is matter made of?

_____

2. The pictures below show a solid, liquid and gas respectively.
   i. In the box provided, draw how the particles in a solid are arranged.

Gift box

ii. In the box provided, draw how the particles in a liquid are arranged.

Liquid poured into a beaker

iii. In the box provided, draw how the particles in a gas are arranged.

Air in a balloon

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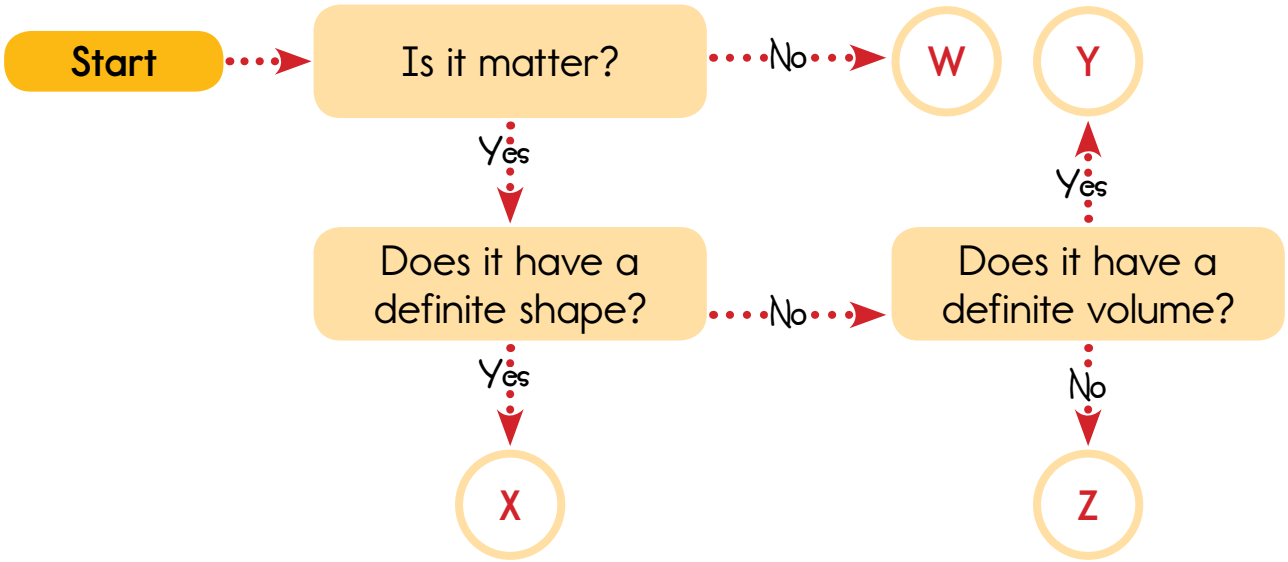
Name: _____ Class: _____ Date: _____

Consolidation Worksheet 3

What Are Solids, Liquids and Gases?

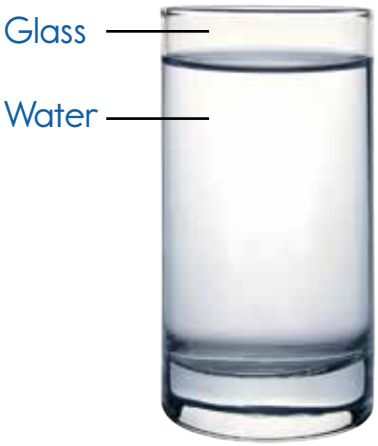
Study the flowchart below and answer the questions that follow.



a. Which of the substances X, Y or Z are made up of tiny particles? Circle the correct answer.

i. Only X and Y ii. Only X and Z iii. Only X and Z iv. X, Y and Z

The picture shows a glass of water.



b. Which letter, W, X, Y or Z, can be used to represent the water? Which letter can be used to represent the glass?

Water: _____ Glass: _____

c. Which of the letters represent 'sound'?

Sound: _____

d. Is Z a solid, liquid or a gas? _____

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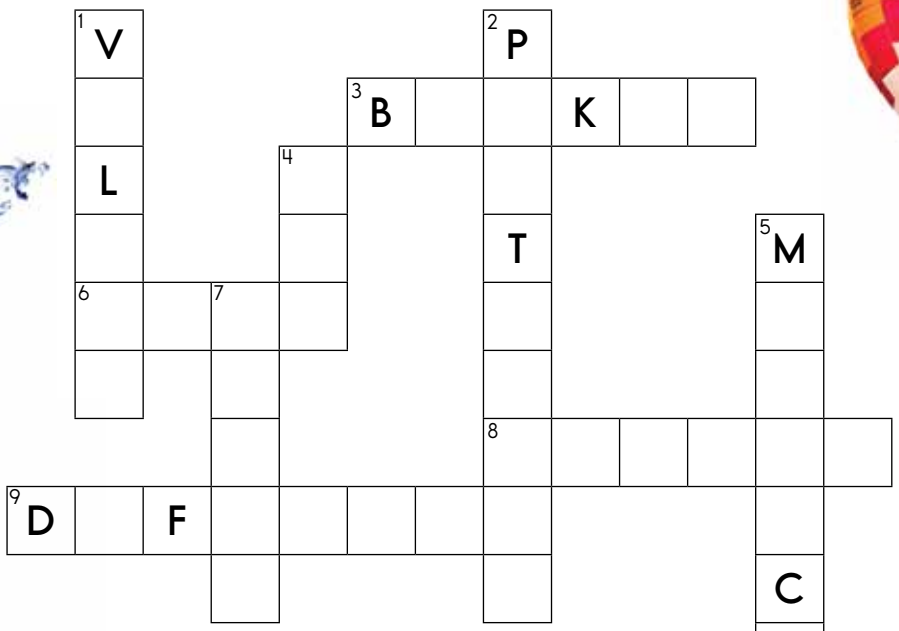
Name: _____ Class: _____ Date: _____

Fun and Games

Crossword!

Complete the crossword puzzle.



Across:

3. A measuring cylinder or a _____ can be used to measure the amount of liquids.
6. Matter is anything that has _____ and occupies space.
8. Water is an example of a _____.
9. Solids have _____ shape and volume.

Down:

1. The amount of space occupied by matter is called _____.
2. All matter is made of _____.
4. Air is an example of a _____.
5. To measure the amount of liquid in a container correctly, your eye level should be at the bottom of the _____.
7. A vase is an example of a _____.

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Name: _____ Class: _____ Date: _____

Exam Practice

Process skills: Comparing, Analysing, Communicating

Min filled three syringes, A, B and C, with 40 cm^3 of matter each. She then tried to push the plungers in. She recorded the markings the plungers were at before and after the experiment. The table below shows her findings.

	Syringe		
	A	B	C
Before	40 cm^3	40 cm^3	40 cm^3
After	40 cm^3	20 cm^3	40 cm^3

Based on her findings, Min drew two conclusions:

Conclusion 1: Syringes A and C must contain solids.
Conclusion 2: Syringe B must contain a gas.

Hint:
In which of the syringes is the matter compressed? Which of solids, liquids and gases can be compressed?

a. Which of her conclusions is/are correct and which is/are incorrect? [2 marks]

_____

b. Explain your answer in 'a'. [2 marks]

_____

_____

_____

_____

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Answers to Additional Teacher's Resources

Solids, Liquids and Gases

Name: _____ Class: _____ Date: _____

Consolidation Worksheet 1

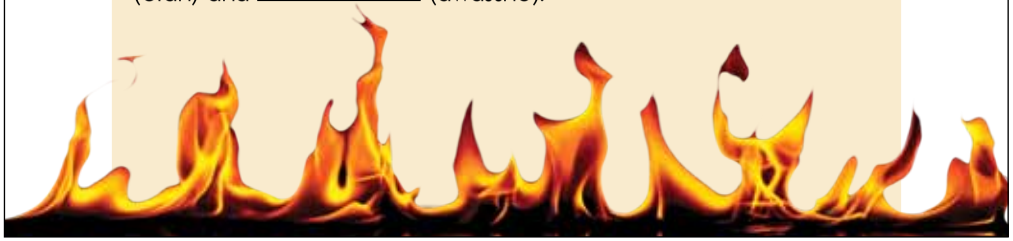
What Is Matter?

Tick (✓) the boxes next to the statements that are TRUE.

1.	Matter is anything that has mass and occupies space.	✓
2.	Only living things are matter.	
3.	A mass balance can be used to measure the mass of matter.	✓
4.	Mass can be measured in litres.	
5.	A measuring cylinder can be used to measure the volume of a liquid.	✓
6.	Air occupies space.	✓
7.	The displacement method is used to measure the volume of an object with irregular shape.	✓
8.	To measure the volume of water in a measuring cylinder, your eye must be level with the top of the meniscus.	

Unscramble the words below to complete the sentences.

Non-matter does not have ___mass___ (sasm) and does not occupy ___space___ (ecaps). Examples of non-matter include ___light___ (ilhtg), ___sound___ (udnos), ___heat___ (etah) and ___shadows___ (dwassho).



Solids, Liquids and Gases

Name: _____ Class: _____ Date: _____

Consolidation Worksheet 2

What Is Matter Made of?

1. What is matter made of?

   Matter is made up of very tiny particles.

2. The pictures below show a solid, liquid and gas respectively.
   i. In the box provided, draw how the particles in a solid are arranged.

Gift box

(The particles should be closely packed together and there should be very little space between the particles.)

   ii. In the box provided, draw how the particles in a liquid are arranged.

Liquid poured into a beaker

(The particles should be loosely packed, and there should be some space between the particles.)

   iii. In the box provided, draw how the particles in a gas are arranged.

Air in a balloon

(The particles should be very loosely packed, and the arrangement should look obviously different from the arrangement in liquids. There should be a lot of space between the particles.)

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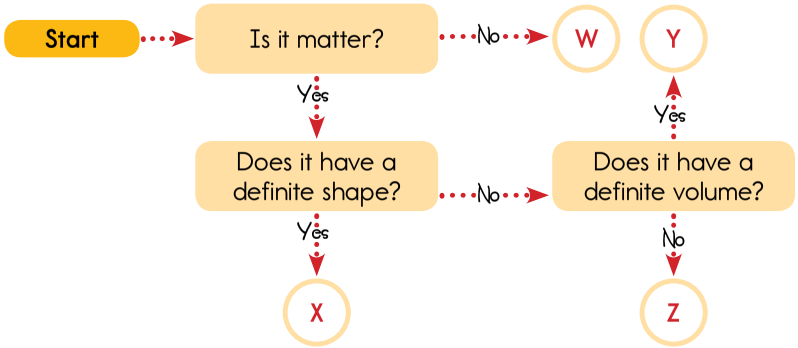
Name: _____ Class: _____ Date: _____

Consolidation Worksheet 3

What Are Solids, Liquids and Gases?

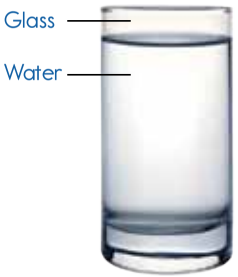
Study the flowchart below and answer the questions that follow.



a. Which of the substances X, Y or Z are made up of tiny particles? Circle the correct answer.

i. Only X and Y ii. Only X and Z iii. Only X and Z iv. X, Y and Z

The picture shows a glass of water.



b. Which letter, W, X, Y or Z, can be used to represent the water? Which letter can be used to represent the glass?

Water: Y Glass: X

c. Which of the letters represent 'sound'?

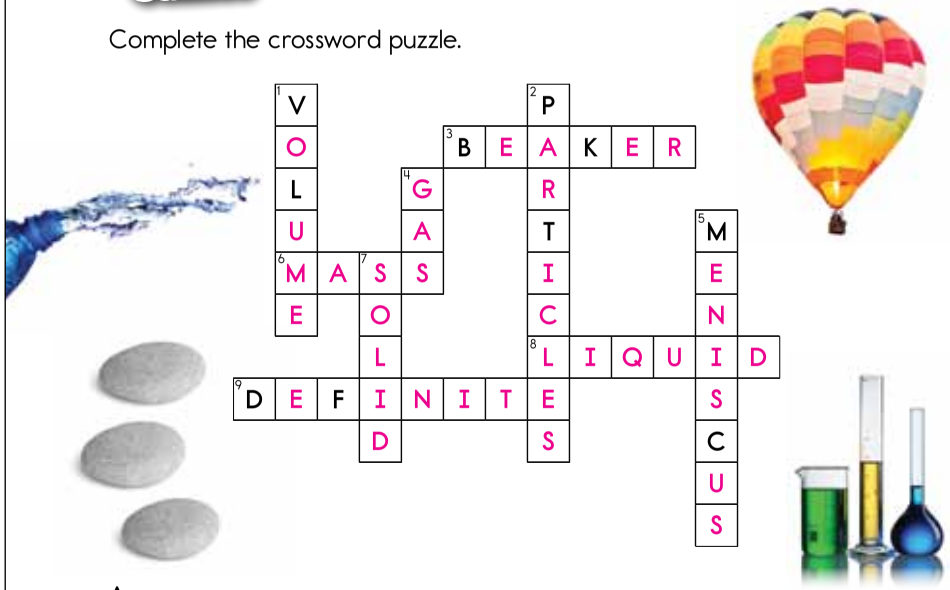
Sound: W

d. Is Z a solid, liquid or a gas? Gas

Name: _____ Class: _____ Date: _____

Fun and Games — Crossword!

Complete the crossword puzzle.



1 V						2 P						
O				3 B	E	A	K	E	R			
L			4 G			R				5 M		
U			A			T				E		
6 M	A	7 S	S			I				N		
E		O				C				8 L	I	Q	U	I	D
		L								S		
9 D	E	F	I	N	I	T	E			C		
		D				S				U		
										S		

Across:

3. A measuring cylinder or a _____ can be used to measure the amount of liquids.
6. Matter is anything that has _____ and occupies space.
8. Water is an example of a _____.
9. Solids have _____ shape and volume.

Down:

1. The amount of space occupied by matter is called _____.
2. All matter is made of _____.
4. Air is an example of a _____.
5. To measure the amount of liquid in a container correctly, your eye level should be at the bottom of the _____.
7. A vase is an example of a _____.

Solids, Liquids and Gases

Name: _____ Class: _____ Date: _____

Exam Practice

Process skills: Comparing, Analysing, Communicating

Min filled three syringes, A, B and C, with 40 cm^3 of matter each. She then tried to push the plungers in. She recorded the markings the plungers were at before and after the experiment. The table below shows her findings.

	Syringe		
	A	B	C
Before	40 cm^3	40 cm^3	40 cm^3
After	40 cm^3	20 cm^3	40 cm^3

Based on her findings, Min drew two conclusions:

Conclusion 1: Syringes A and C must contain solids.
Conclusion 2: Syringe B must contain a gas.

Hint:
In which of the syringes is the matter compressed? Which of solids, liquids and gases can be compressed?

a. Which of her conclusions is/are correct and which is/are incorrect? [2 marks]

Conclusion 1 is incorrect while Conclusion 2 is correct.

b. Explain your answer in 'a'. [2 marks]

As the volume did not decrease for both Syringes A and C, they could contain either solids or liquids. Thus, Conclusion 1 is incorrect. The volume for Syringe B. Only gases can be compressed. Thus, Conclusion 2 is correct.

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Glossary

Chapter 4:
Solids, Liquids and Gases

Definite	Clearly defined or having a fixed limit
Flow	To move along or stream
Gases	A form of matter that is air-like and can expand indefinitely to fill up any space
Liquids	A form of matter that moves freely like water and can be found in-between the solid and gaseous state
Mass	The amount of matter in an object
Matter	Any substance that has mass and occupies space
Non-matter	Anything that do not have mass or occupy space
Particles	Very tiny building blocks of matter that cannot be seen with the naked eye
Solids	A form of matter that has particles that are closely packed and arranged in a regular pattern
Volume	The amount of space occupied by matter

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