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Government

Education

Directorate: Curriculum GET

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GET Term 2 Take Home Package
Natural Sciences and Technology

Grade 5

Grade 5: Natural Science and Technology	
5 Consolidation Activity Sheet	

Knowledge Strands: Matter and materials and processing	
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Question 1	
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Match the number in Column A with the letter in Column B. Write down the letter in the middle column.

	Column A	Answer	Column B	
1.1	Combine		A. A liquid used to give colour or texture or protect surfaces and objects.	
1.2	Process		B. A thick mixture of a solid and a mixture.	
1.3	Ingredients		C. To mix or join together.	
1.4	Paste		D. The list of raw materials that are selected to go into the mixture.	
1.5	Paint		E. Change in different ways to get new materials or products with new properties.	
				(5)

Question 2	
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State whether each of the statements below are true or false.

		True	False	
2.1	Nylon and polyester are examples of natural made fibres.			(1)
2.2	Weaving is the process of rolling material into a spiral shape.			(1)
2.3	A mixture is something that is made by mixing things together.			(1)

Question 3	
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Complete the sentences by selecting words from the word box below:

Dissolve	kiln	fabric	glass	coil	stitch
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3.1	_____ is a material made from yarn or fibres by weaving or knitting.	(1)
3.2	_____ is transparent, hard, durable and waterproof.	(1)

3.3	A _____ is a furnace or oven that is used to process materials by burning, baking or drying them.	(1)
3.4	We _____ using thread to sew or join two materials together.	(1)

Question 4

4.1	Name TWO natural fibres from plants.	(2)
4.2	Name TWO natural fibres from animals.	(2)

Question 5

During the year you have investigated that different materials can be combined by mixing and when different materials are combined and processed they will have new properties.

Study the table below of different materials and their properties and answer the questions that follow.

Material	Properties
Cement	Soft fine powder, absorbs water in its powder form
Water	At room temperature it is a liquid, tasteless, and colourless. Many substances dissolve in water.
Plaster of Paris	White or yellowish powder
Gravel	Fine coarse rock structure
Flour	Fine, soft white powder
Clay (Wet)	Fine and soft grain, will shrink when heated
Sand	Grainy, white and fine
Jelly powder	Fine crystals

5.1	Name the THREE materials you will mix with water to make a hard material used in the building industry.	(3)
5.2	You have broken a bone in your leg at a sports match. Name TWO of the materials the doctor will mix to make a cast for your leg to help the healing process.	(2)
5.3	Name the process required after water and flour has been mixed to make bread.	(1)
5.4	Describe the properties of the product made with jelly powder and water and left to cool.	(2)

Question 6

Study the six illustrations of mugs made from different materials and answer the questions that follow.

		
Pottery (Ceramic)Mug	Porcelain Mug	Glass Mug
		
Wooden Mug	Paper Mug	Plastic Mug
6.1	Which mug would be the strongest?	(1)
6.2	Which of these mugs would be fire resistant?	(1)
6.3	Which two mugs have its origin from trees?	(2)
6.4	Which of these mugs are waterproof? Give a reason for your answer.	(2)
		TOTAL MARKS: (30)

MEMORANDUM

Question 1

- 1.1 C ✓ (1)
 1.2 E ✓ (1)
 1.3 D ✓ (1)
 1.4 B ✓ (1)
 1.5 A ✓ (1)

Question 2

- 2.1 False ✓ (1)
 2.2 False ✓ (1)
 2.3 True ✓ (1)

Question 3

- 3.1 Fabric ✓ (1)
 3.2 Glass ✓ (1)
 3.3 Kiln ✓ (1)
 3.4 Stitch ✓ (1)

Question 4

- 4.1 Cotton ✓ and linen ✓ (2)
 4.2 Silk ✓ and wool ✓ (2)

Question 5

- 5.1 Cement ✓, gravel ✓ and sand ✓ (3)
 5.2 Plaster of Paris ✓ and water ✓ (2)
 5.3 Heating / cooking / bake / steaming ✓ (1)
 5.4 Soft, wobbly, smooth, firm ✓✓ (any two) (2)

Question 6

- 6.1 The plastic mug ✓ (1)
 6.2 The pottery mug ✓ (1)
 6.3 The wooden ✓ and paper mug ✓ (2)
 6.4 All of them. ✓ The mugs are design to be hold water. ✓ (2)

TOTAL MARKS: (30)**Properties of metals and non-metals**

1. Jenna and Josh did some experiments to find out the different properties of objects. They noted their results in the table below:

Experiment	Object 1	Object 2	Object 3	Object 4	Object 5	Object 6
Is it attracted to a magnet?	Yes	No	No	No	No	No
Can electricity pass through it?	Yes	Yes	Yes	No	No	Yes
Does it feel cold?	Yes	Yes	No	No	No	Yes
Does it look shiny?	Yes	Yes	No	Yes	No	Yes

Using the information about the objects, write down the numbers of the objects that were made from metal.

ANSWER: _____



2. Find the following words in the word search and circle them.

Use 2 different colours to show whether the words in the word search describe metals (**blue**) or non-metals (**green**).

B	I	F	N	I	A	B	D	E	A	C	L	<ul style="list-style-type: none"> • Magnetic • Dull • Malleable • Conductor • Insulator • Non-magnetic • Shiny • Ductile • Brittle
Y	M	N	W	B	R	C	L	B	E	I	L	
D	N	V	S	I	W	B	P	H	E	T	U	
Q	F	I	T	U	A	E	R	Z	A	E	D	
N	S	T	H	E	L	Z	W	P	A	N	M	
U	L	M	L	S	Z	A	K	J	V	G	A	
E	Q	L	N	X	R	C	T	J	X	A	G	
K	A	B	L	B	B	B	R	O	Z	M	N	
M	C	O	N	D	U	C	T	O	R	N	E	
E	L	I	T	C	U	D	U	O	F	O	T	
L	I	F	S	U	W	H	V	M	A	N	I	
P	V	Z	I	J	O	A	U	O	S	W	C	

3. Properties of Metals - Match the following terms to their definitions

electrical conductor

lustrous

malleable






flexible

ductile

thermal conductor

Property	Definition
	All metals are shiny when polished or freshly cut
	Metals do not break – they bend
	Metals can be drawn into wires
	Metals can be hammered into sheets or wire
	All metals conduct electricity
	Metals allow energy to flow through them, causing heating

4. Decide if the following objects are metals or non-metals. Write down two properties of the object.

Object	Is it a metal or non-metal?	Properties
R2 Coin 		
Eraser 		
Wires 		
Cold drink bottle 		
Nails 		

Grade 5 Consolidation Activity Sheet

Properties of metals and non-metals

5. Jenna and Josh did some experiments to find out the different properties of objects. They noted their results in the table below:

Using the information about the objects, write down the numbers

ANSWER: 1, 2 & 6

Word search








B	I	F	N	I	A	B	D	E	A	C	L	<ul style="list-style-type: none"> • Magnetic • Dull • Malleable • Conductor • Insulator • Non-magnetic • Shiny • Ductile • Brittle
Y	M	N	W	B	R	C	L	B	E	I	L	
D	N	V	S	I	W	B	P	H	E	I	U	
Q	F	I	T	U	A	E	R	Z	A	E	D	
N	S	T	H	E	L	Z	W	P	A	N	M	
U	L	M	L	S	Z	A	K	J	V	G	A	
E	Q	L	N	X	R	C	T	J	X	A	G	
K	A	B	L	B	B	B	R	O	Z	M	N	
M	C	O	N	D	U	C	T	O	R	N	E	
E	L	I	T	C	U	D	U	O	F	O	T	
L	I	F	S	U	W	H	V	M	A	N	I	
P	V	Z	I	J	O	A	U	O	S	W	C	

Properties of Metals -

Property	Definition
<i>lustrous</i>	All metals are shiny when polished or freshly cut
<i>flexible</i>	Metals do not break – they bend
<i>ductile</i>	Metals can be drawn into wires
<i>malleable</i>	Metals can be hammered into sheets
<i>electrical conductor</i>	All metals conduct electricity
<i>thermal conductor</i>	Metals allow energy to flow through them, causing heating

Decide if the following objects are metals or non-metals. Write down two properties of the object.

Object	Is it a metal or non-metal?	Properties
<p>R2 Coin</p> 	<p>metal</p>	<p>Metals are shiny.</p> <p>Metals do not break.</p> <p>*</p>
<p>Eraser</p> 	<p>non-metal</p>	<p>Non-metals are dull.</p> <p>Does not conduct heat.</p> <p>*</p>
<p>Wires</p> 	<p>metal</p>	<p>Conducts electricity.</p> <p>Metals do not break – they bend.</p> <p>*</p>
<p>Cold drink bottle</p> 	<p>non-metal</p>	<p>Non-metals are dull.</p> <p>Does not conduct heat.</p> <p>*</p>
<p>Nails</p> 	<p>metal</p>	<p>Metals do not break – they bend.</p> <p>Metals are shiny.</p> <p>*</p>

- Or any other correct property associated with metals or non-metals.