

## Grade 7 Natural Science Worksheet

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### Assessment Task: Earth Science: rocks

#### Rocks

#### Part One: Types of rock

Read the following information and then complete the table below.

**Igneous** rocks are sometimes called 'fire-formed' rocks. Although no actual fire is involved, igneous rock is formed from tremendous heat in the Earth's mantle producing magma. When magma cools and hardens into a solid from its molten form, igneous rock is formed. Granite, obsidian and basalt are examples of igneous rock.

**Sedimentary** rock is formed from tiny pieces of rocks, sand, clay and mud (or sediment) that are pressed together very tightly and harden into a solid rock. Over time, new layers of sediment and material are laid down over older layers, creating **strata** (singular: stratum) of sedimentary rock. Sometimes, the bodies of dead animals or plants can become trapped in layers of sedimentary rock and form fossils. Sandstone, limestone, chalk and shale are examples of sedimentary rock.

The word 'metamorphic' means to change. **Metamorphic** rock was once igneous or sedimentary rock that has been changed either by heat or pressure and becomes a new form of rock over time. Slate, quartzite and marble are examples of metamorphic rock. Marble was once limestone which was changed by heat and pressure into marble.

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Igneous rock	Sedimentary rock	Metamorphic rock

[12 marks]

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### Part Two: Finding words in a puzzle

Find the words in the puzzle. The first one has been done for you.

1.	R	P	S	I	M	<b>G</b>	<b>R</b>	<b>A</b>	<b>N</b>	<b>I</b>	<b>T</b>	<b>E</b>	X	R	I	K	Y	O	U	N	A	
2.	R	I	J	I	W	V	Q	B	G	M			N	E	R	A	L	G	K	I	M	V
3.	O	K	W	Z	W	E	A	T	H	E			I	N	G	D	P	D	W	U	J	M
4.	D	Y	C	V	L	J	O	S	O	I			T	Q	J	K	Y	R	Z	E	L	F
5.	W	W	R	D	Q	N	E	T	O	I			N	E	O	U	S	F	K	F	H	M
6.	W	S	Q	U	T	L	I	M	E	S			O	N	E	N	F	L	A	Y	X	C
7.	V	J	H	I	Y	R	M	J	S	T			A	T	U	M	M	Y	H	E	S	A
8.	C	Q	R	N	J	J	M	A	R	B			E	W	K	L	N	I	O	T	P	O
9.	E	N	N	Z	C	I	A	F	E	R			S	I	O	N	R	A	K	J	F	V
10.	D	O	V	K	S	A	N	D	S	T			N	E	L	F	Q	E	H	A	O	V
11.	S	M	U	G	A	T	J	Q	Q	M			G	M	A	Z	I	X	V	C	M	O
12.	F	J	Q	N	U	F	M	E	T	A			O	R	P	H	I	C	P	S	V	W
13.	C	K	K	N	V	J	D	S	E	D			M	E	N	T	A	R	Y	G	B	I
14.	B	P	Z	G	E	O	L	O	G	I			T	Z	L	W	C	Y	L	F	F	P
15.	S	C	B	I	J	O	B	S	I	D			A	N	Q	C	G	L	R	W	Z	V

METAMORPHIC	MARBLE	EROSION	SOIL
IGNEOUS	MINERAL	MAGMA	LIMESTONE
SANDSTONE	WEATHERING	STRATUM	GEOLOGIST
SEDIMENTARY	✓GRANITE	OBSIDIAN	

[15 marks]

### Part Three: List the use of rocks in your school environment

As a group, study your built environment at school and at home.

Make a list of all the ways rocks are used in your environment.

[5 marks]

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### Suggested Solutions

Question number	Possible marks	Solution																
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2	15	<p>1. R P S I M G R A N I T E X R I K Y O U N A</p> <p>2. R I J I W V Q B G M I N E R A L G K I M V</p> <p>3. O K W Z W E A T H E R I N G D P D W U J M</p> <p>4. D Y C V L J O S O I L T Q J K Y R Z E L F</p> <p>5. W W R D Q N E T O I G N E O U S F K F H M</p> <p>6. W S Q U T L I M E S T O N E N F L A Y X C</p> <p>7. V J H I Y R M J S T R A T U M M Y H E S A</p> <p>8. C Q R N J J M A R B L E W K L N I O T P O</p> <p>9. E N N Z C I A F E R O S I O N R A K J F V</p> <p>10. D O V K S A N D S T O N E L F Q E H A O V</p> <p>11. S M U G A T J Q Q M A G M A Z I X V C M O</p> <p>12. F J Q N U F M E T A M O R P H I C P S V W</p> <p>13. C K K N V J D S E D I M E N T A R Y G B I</p> <p>14. B P Z G E O L O G I S T Z L W C Y L F F P</p> <p>15. S C B I J O B S I D I A N Q C G L R W Z V</p> <table border="1"> <tbody> <tr> <td>METAMORPHIC</td> <td>MARBLE</td> <td>EROSION</td> <td>SOIL</td> </tr> <tr> <td>IGNEOUS</td> <td>MINERAL</td> <td>MAGMA</td> <td>LIMESTONE</td> </tr> <tr> <td>SANDSTONE</td> <td>WEATHERING</td> <td>STRATUM</td> <td>GEOLOGIST</td> </tr> <tr> <td>SEDIMENTARY</td> <td>GRANITE</td> <td>OBSIDIAN</td> <td></td> </tr> </tbody> </table>	METAMORPHIC	MARBLE	EROSION	SOIL	IGNEOUS	MINERAL	MAGMA	LIMESTONE	SANDSTONE	WEATHERING	STRATUM	GEOLOGIST	SEDIMENTARY	GRANITE	OBSIDIAN	
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3	5	<p>Some examples are given here, learners may provide other examples:</p> <ol style="list-style-type: none"><li>Rock used as building blocks.</li><li>Granite kitchen top.</li><li>Marble statue.</li><li>Cement (see the rock in the conglomerate – maybe take a photo of a building team making cement)</li><li>Tar road</li><li>Slate roof</li></ol>