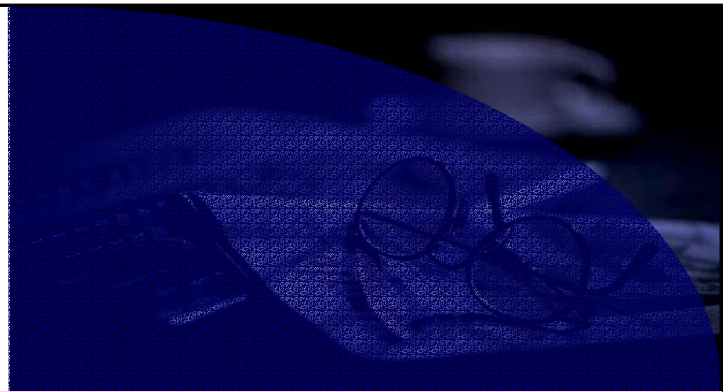


assessment for learning

year 8...mark scheme



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## 8G Rocks and weathering...mark scheme

### Assessment for learning...year 8 (level 3-6)

#### Question 1:

- (a) when water freezes it expands 1  
bits are forced off the sandstone **or** cracks are forced open 1  
*accept 'cracks are opened up'*
- (b) (i) **answers may include processes which are sometimes classified as erosion award one mark for the correct statement and one mark for the correct explanation** 2  
**either**  
expansion and contraction due to rapid changes in temperature  
*accept 'due to hot days and cold nights'*  
**or**  
rocks split open due to growth of plant roots  
**or**  
rocks are pitted **or** cracked due to wetting and drying  
*accept 'material hitting the surface'*  
**or 'attrition' or erosion due to wind or water**  
**or animals or people or rain'**
- (ii) acid rain **or** rain **or** pollutants 1  
reacting with substances in the rock 1  
*accept 'oxidation' or 'rusting'*

accept 'reacts with **or** dissolves **or** breaks down rock  
**or** named rock'  
do **not** accept 'wears away the rock'

[6]

**Question 2:**

- (a) D 1
- (b) (i) solid 1  
(ii) liquid 1
- (c) (i) sedimentary 1  
(ii) igneous 1

[5]

**Question 3:**

(a)

	example	weathering	erosion	neither
*	<i>The stones in an old wall have been pushed apart by the roots of weeds.</i>	✓		
*	<i>An old granite gravestone is still smooth and shiny.</i>			✓
*	<i>A clay flower pot in the garden has crumbled and broken into pieces during the winter.</i>	✓		
*	<i>Some soil has been washed from a flower bed by rain.</i>		✓	

4

*if more than one box is ticked in any row, award no mark for that row*

- (b) freezing **or** freeze-thaw 1  
accept 'acid rain' **or** 'chemical weathering'  
do **not** accept 'weathering' **or** 'rain'

[5]

**Question 4:**

- (a) any **one** from 1  
  - pieces are broken off
  - the cliff is worn away
  - it crumbles

*accept 'erosion'*

- (b) (i) any **one** from 1

- remains **or** impressions of plants **or** animals which are very old

*accept 'a plant **or** animal buried for thousands of years'*

- remains **or** impressions of plants **or** animals in a rock

*accept 'remains **or** impressions of plants **or** animals **or** living things'*

(ii) sedimentary 1

(c) (i) cooling of **or** crystallisation from magma **or** lava **or** molten rock 1

*accept 'from magma **or** lava'*

*accept 'from volcanoes'*

*'by heating' is insufficient*

(ii) any **one** from 1

- they were formed in conditions where plants **or** animals **or** living things could not exist
- magma is too hot for plants **or** animals to survive

(iii) any **one** from 1

- larger in granite

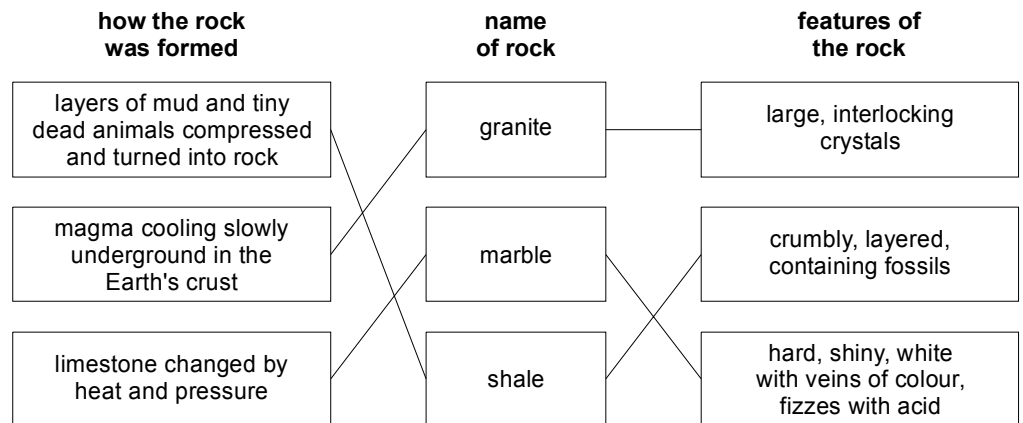
*accept 'larger' **or** 'bigger'*

- smaller in basalt

[6]

**Question 5:**

- (a) **Both the line from the name of the rock to the method of formation and to the features of the rock must be correct for the mark.**



3

(b) (i) acidic water drains through cracks 1

*accept 'rain is acidic'*

water reacts with limestone **or** calcium carbonate 1

*accept 'limestone dissolves'*

(ii) any **two** from

2

- low temperatures make water freeze in cracks

*accept 'water freezes in cracks'*

- water expands as it freezes
- ice expanding breaks up the limestone

*accept 'ice forces the rock apart'*

**[7]**