

Glacial processes assessment mat

1 Define 'bulldozing'.

2 Identify two forms of glacial erosion.

3 State one type of glacial deposit.

4 Explain how glaciers move.

5 Suggest one way that glaciers can transport material.

14 Explain why calving takes place.

13 Outline the difference between accumulation and ablation.

12 Select the correct term for the reflective capacity of material such as ice and snow which returns incoming solar radiation:
a) equilibrium
b) albedo
c) nivation

11 Suggest what causes a drumlin to form.

10 Outline what is meant by 'freeze-thaw weathering'.

9 From the photograph, describe one process that is happening here.

6 Identify two landforms created by glacial erosion.

7 Select the correct term for grooves that are scratched into the bedrock below ice as glacier moves down valley:
a) striations
b) pingos
c) varves

8 Describe what is meant by 'glacial isostatic change'.




The terminus of Svínafellsjökull creating a glacial lagoon, Iceland



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Glacial processes assessment mat

<p>1 Define 'bulldozing'. Bulldozing is what happens as ice moves forward and it slowly pushes material ahead of it down hill like a bulldozer.</p>	<p>2 Identify two forms of glacial erosion. Plucking Abrasion</p>	<p>3 State one type of glacial deposit. e.g. moraines, till, moulins, drumlins</p>	<p>4 Explain how glaciers move. Glaciers act like frozen rivers flowing downhill. The base of the glacier is slightly warmer through friction which allows ice to melt and creep forward over a thin layer of water. Also the sheer weight of ice causes it to deform & move down due to gravity.</p>	<p>5 Suggest one way that glaciers can transport material. e.g. bulldozing in front of the glacier, or plucked and weathered material falls on top of the glacier and moves downhill, or meltwater moves sediment away from the glacier</p>
<p>14 Explain why calving takes place. Calving most often happens when a glacier flows into water. As the glacier moves forwards a rift opens at the edge and the ice becomes increasingly unstable until it breaks away, forming an iceberg.</p>	 <p><i>The terminus of Svínafellsjökull creating a glacial lagoon, Iceland</i></p>			<p>6 Identify two landforms created by glacial erosion. e.g. corries (also called cwm or cirque), arêtes, pyramidal peaks, truncated spurs, glacial troughs (U-shaped valleys), fjords, etc.</p>
<p>13 Outline the difference between accumulation and ablation. Accumulation is when the glacier's mass builds up due to snow falling & compacting into ice, whereas ablation is when ice is lost through melting, calving, evaporation, etc.</p>				<p>7 Select the correct term for grooves that are scratched into the bedrock below ice as glacier moves down valley: a) <u>striations</u> b) pingos c) varves</p>
<p>12 Select the correct term for the reflective capacity of material such as ice and snow which returns incoming solar radiation: a) equilibrium b) <u>albedo</u> c) nivation</p>	<p>11 Suggest what causes a drumlin to form. As a glacier moves it transports material and deposits it as moraine. Drumlins are created when ice moves over a moraine and shapes the deposit to have a steep slope uphill and gentle slope downhill</p>	<p>10 Outline what is meant by 'freeze-thaw weathering'. This happens when higher temperatures by day allow snow/ice to melt and enter cracks in rocks, then at night as temperatures drop this meltwater freezes and expands which widens the cracks. This repeats and gradually rocks split apart.</p>	<p>9 From the photograph, describe one process that is happening here. e.g. Iceberg calving is evident here at the snout with ice breaking up and creating a glacial lagoon; there is also evidence of transportation as you can see terminal moraines</p>	<p>8 Describe what is meant by 'glacial isostatic change'. The adjustment of the Earth's crust as it floats over the mantle, whereby the weight of ice pushes the crust down and when ice melts the crust bounces back up (glacial rebound).</p>



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