Unit 2: Gradational Processes Quiz
Topic: Glaciation (A) **Name** _____

1. The semi-solid transition stage between snow and glacial ice is called _____.

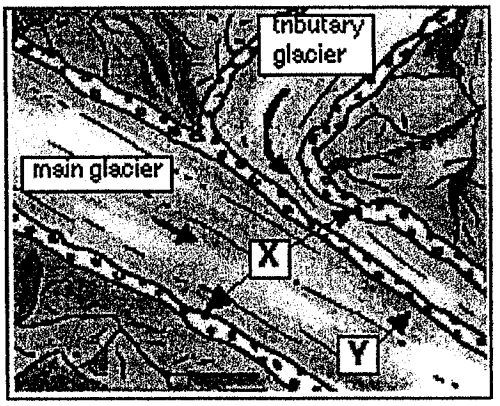
2. The moving force behind glacial advance is _____.

3. Drift refers to any material deposited by a glacier. Two types of glacial drift can be identified, till and outwash. State **one** important difference between till and outwash.

_____

_____

4. X and Y on the diagram point to debris carried by a glacier. Give the proper names for the debris which appears as dark lines in the glacial ice. X is located along the sides of the glacier and Y down the centre of the glacial ice.



X _____

Y _____

5. The mound of debris left at the farthest advance of a glacier is called _____

6. Give the name for a sharp ridge formed when 2 cirque glaciers erode the valley wall between them.

_____

7. What shape are glacier valleys? _____

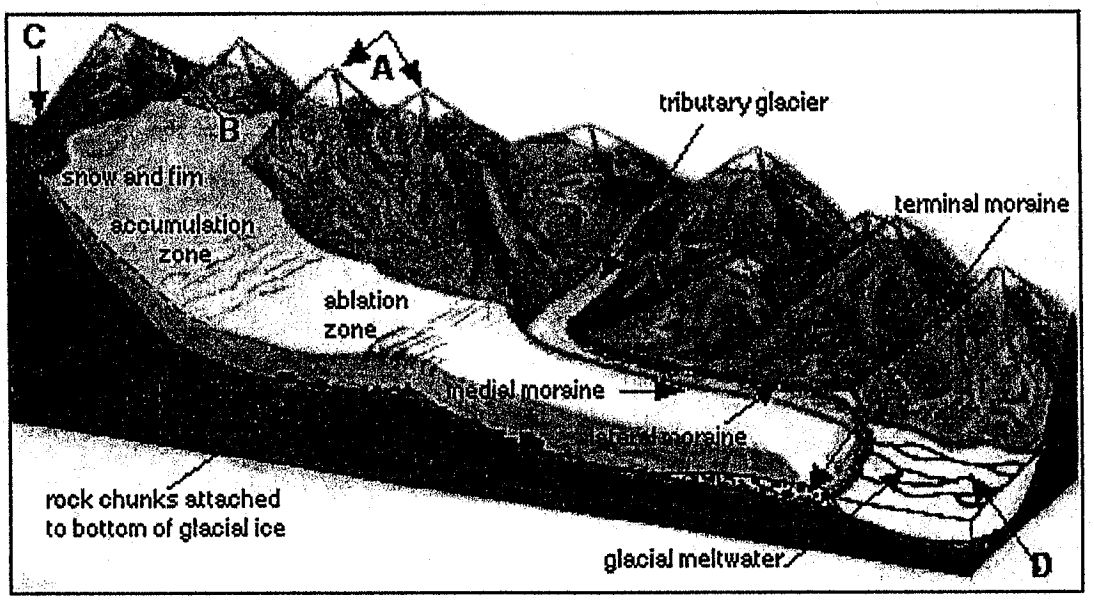
8. A sharp mountain peak created by glacial action is known as a _____.

2-3

Unit 2: Gradational Processes Quiz
Topic: Glaciation (B) **Name** _____

1. Deep cracks created when a glacier moves over uneven rock surfaces are called _____.

2. A bowl-shaped depression formed by the erosional action of glaciers is called a _____.



Use the diagram above to answer question 3.

3. Give the proper name for the following
   A. A sharp peak created by glacial erosion _____
   B. A sharp mountain ridge created between two glaciers _____
   C. A mountain pass formed by excessive glacial erosion _____
   D. Glacial drift deposited by meltwater _____

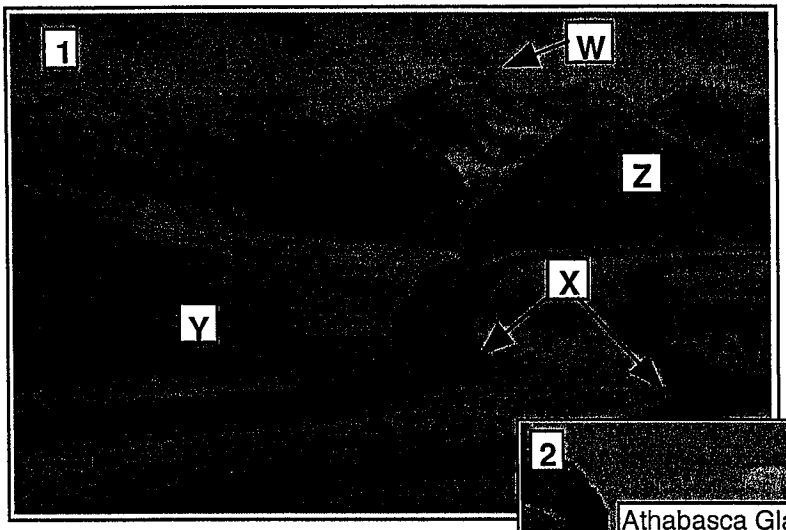
4. Give two benefits of glaciers.
   _____ _____

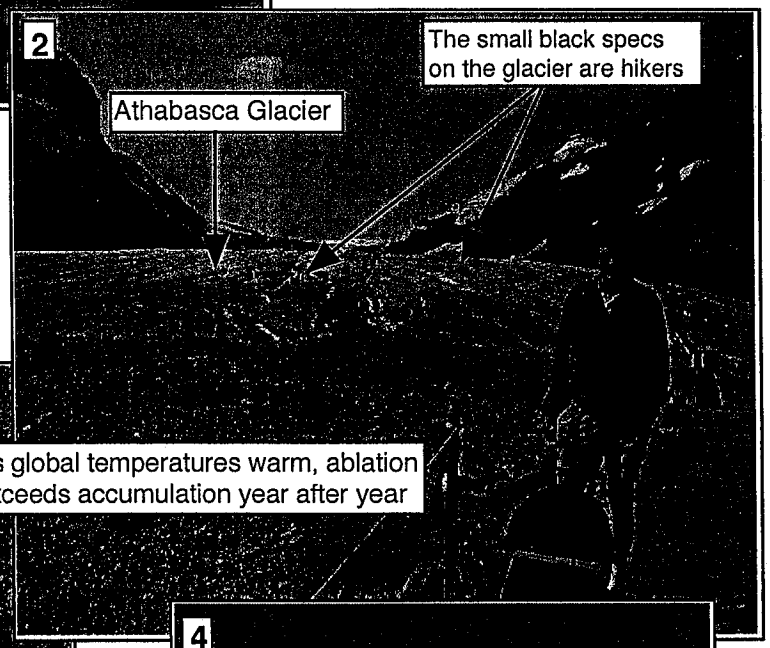
5. Long, narrow, and often deep lakes formed by advancing glacial ice are known as _____.

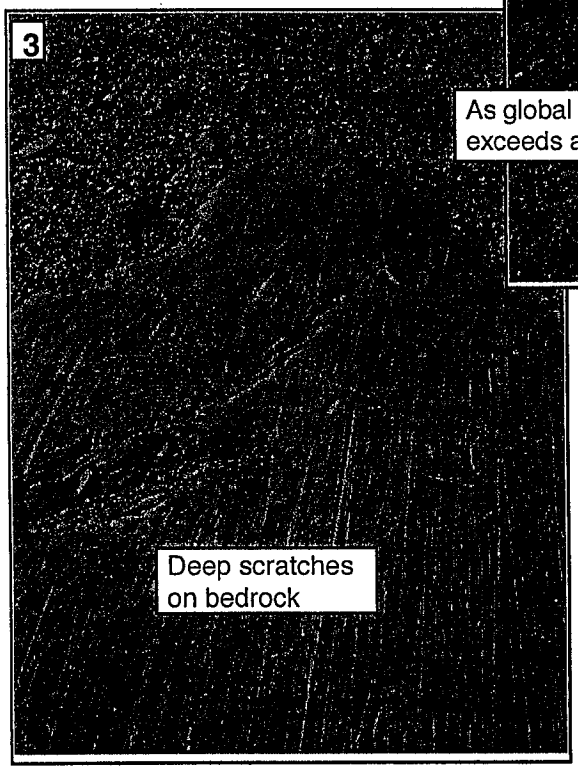
6. Isolated boulders left behind by glaciers, often 100's of kilometres from their source of origin are called _____.

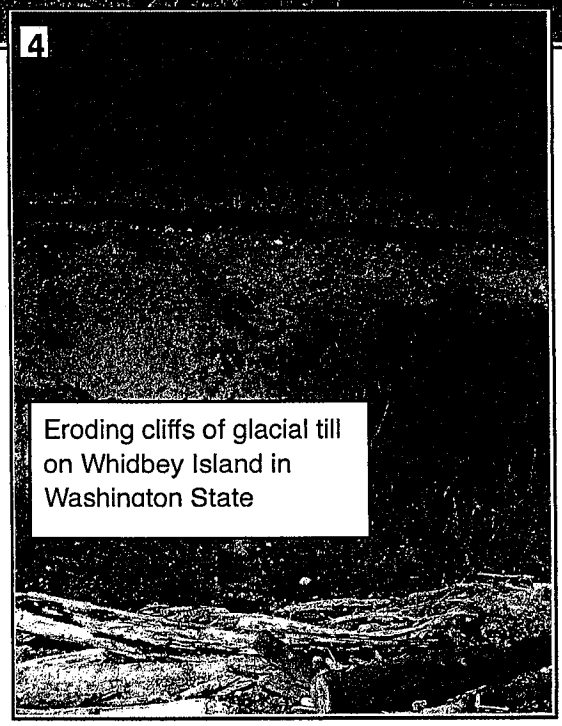
Name _____

Glaciers: Moving rivers of ice









Topic: Glaciation **Name** _____

Use the glacier photographs to answer the questions below.

1. In photograph 1 the dark strands of glacial debris at X are called _____

How did they form? _____

_____

_____

_____

2. The debris along the side of the glacier at Y is called _____

3. Give the proper name for the sharp peak at W. _____

How did this peak form? _____

_____

_____

Numerous sharp ridges are often evidenced leading away from sharp mountain peaks. What are these ridges called? _____

How were these ridges formed? _____

_____

_____

4. The typical shape of a glacial valley is _____

The steep valley sides left behind after glacial ice melts away are often vertical drop-offs with numerous waterfalls cascading down to the valley bottom. These steep cliffs are known as

_____.

Explain how they were formed._____

_____

_____

_____

5. A terminal moraine is a huge mound of glacial debris deposited at the farthest advance of a glacier. Define recessional moraine. _____

_____

_____

_____

6. Could there be more than 1 recessional moraine? _____ Why or why not?

_____

_____

_____

7. As global warming accelerates, both alpine glaciers and continental ice sheets worldwide are in a state of rapid retreat. Within 50 years many glaciers will have all but disappeared. In a paragraph discuss some of the environmental changes that will occur as a result of the loss of glaciers around the world.

_____

_____

_____

_____

_____

_____

8. In photograph 3, deep scratches are evident in the bedrock. What are these scratches called?

_____ How did these scratches form? _____

_____

_____

_____

9. Debris deposited by glaciers is referred to as glacial drift. There are 2 types of glacial drift, till and outwash. Photograph 4 shows glacial till that was deposited by ice action. State 2 differences between till and outwash?

_____

_____

_____

_____

Unit 2: Gradational Processes
Topic: Glaciation Terminology **Name** _____

Pick the correct term from the following group of words to fill in the blanks below.

outwash	erratic	firn	horn
arete	truncated spur	cirque	till
esker	lateral moraine	drumlin	tarn
striation	ribbon	kettle	col
terminal moraine	medial moraine	crevasse	

1. Unsorted and unstratified glacial deposits. _____
2. A sharp knife-like ridge, created by ice action. _____
3. Indicates the farthest point of glacial advance. _____
4. A hillside hollow created as ice plucks and abrades the rock surface. _____
5. Sorted and stratified glacial deposits. _____
6. A lake created when a block of ice is left behind in a depression. _____
7. A large boulder deposited far from its source of origin by moving ice. _____
8. Small elongated hill of glacial deposits. _____
9. A transitional stage of glacial ice, consisting of a snow and ice mix. _____
10. A small lake left behind when glacial meltwater fills a hillside hollow created by glacial erosion.

_____

11. Deep scratch created when rocks attached to glacial ice abrade bedrock. _____
12. Glacial debris carried along the side of a valley glacier. _____
13. A sharp mountain peak created by ice action. _____
14. A mountain pass resulting from excessive glacial erosion. _____
15. A long narrow glacial lake. _____
16. Long snake-like ridge of glacial deposits formed as glacial meltwater flows from tunnels at the base of the glacier. _____
17. Dark strands of glacial debris carried in the middle parts of a valley glacier.

_____

18. Steep, often vertical valley walls created when a glacier moves through a river valley and transforms it into a u-shaped valley. _____
19. Deep cracks in ice, created when a glacier moves over uneven bedrock. _____