

REVIEW- GLACIERS

NAME _____ HR _____

1. How many ice ages have there been in Earth's history?
2. How many degrees does the temperature need to drop to start an ice age?
3. True or false -- Everywhere on the planet is much colder during an ice age.
4. What are five reasons why the temperature could drop to make an ice age?

A _____
B _____
C _____
D _____
E _____

5. Where does water come from to make a glacier?
6. When Glaciers are very large, how far do ocean levels drop?
7. Why was there a land bridge between Siberia and Alaska?
8. Where are glaciers found?
9. How thick can glaciers get?
10. What types of plants and animals live near glaciers?
11. Where did humans live in the Ice Age?
12. What is the definition for a glacier?
13. What is Firn?
14. The amount of snow added annually to a glacier is called?
15. The amount of ice lost annually is called?
16. What are the four things that can cause ablation?

1 _____
2 _____
3 _____
4 _____

17. What are the two ways glaciers move? Describe each. (4 Points)

18. How do dry glaciers typically move? (what method do they use?)

19. How do wet glaciers typically move? (what method do they use?)

20. Glaciers always move in what direction?

21. If a glacier moves forward at the same rate as the front of the glacier melts it is called?

22. If a glacier moves forward faster than it melts it is called?

23. If a glacier melts faster than it moves forward it is called?

24. About how far do glaciers move every year?

25. In what season do glaciers typically move the most?

26. What are the four types of Glaciers? Define, give examples, and draw a sketch (16PTS)

Type of glacier	Definition	Example of where it's found	Draw it

27. What is a glaciation?

28. What are the four glaciations of the last ice age and when did they happen? (8PTS)

29. How are glaciations named?

30. Matching

Glacial flour	A	form when sand is blown by wind when Lake water level is low
Till	B	gently Rolling Hills that form when till is dropped in place as a glacier melts
Dunes	C	Egg-shaped small hill
Glacial erratic	D	Ridges of till along sides of a glacier
Terminal Moraine	E	Snake like ridges that form when meltwater carry small sediments and deposits them and a narrow path under the glacier
Ground Moraine	F	Large Boulders that were moved long distances by glaciers and are dropped off in a new location
Lateral Moraine	G	Meltwater and deposited in a fan like pattern
Esker	H	Sliding rocks and Ice grind up soft rock into powder
Drumlin	I	An accumulation of till at the end of a glacier
Outwash plain	J	unsorted Rock and sediments that are placed by a glacier (sand, gravel, stones)

31. What's is it called when a rock freezes to the glacier and then is used as a grinding tool?

32. When rocks rub together this is called?

33. If abrasion occurs on soft rock it will create what?

34. If abrasion occurs on hard rock it will create what?

35. Describe how Frost wedging works.

36. MATCHING:

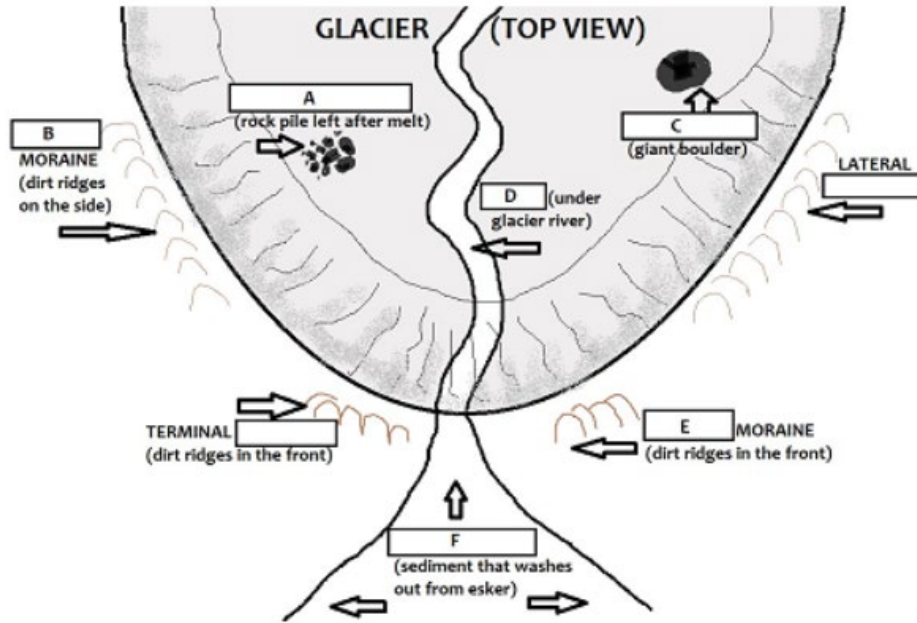
	Lake Plains	A	Carved out Bowl shapes on mountains
	Kettles	B	U-shaped valley carved by Cirque glaciers that often have a steep drop off that's making great waterfalls
	Rock outcrop	C	Sharp ridges formed by back-to-back Cirque glaciers
	Cirques	D	Shape created by Valley Glacier carving and a routing the space between mountains
	Aretes	E	Formed when large blocks of ice break off, create a dent due to their weight, then melt and fill in the dent
	Hanging valleys	F	Flat fertile land caused by sediments being laid down by wave action
	Horns	G	A section of rock that stands out higher than the surrounding land. They formed due to erosion from the flow of water
	U valleys	H	Sharp mountain peaks formed by Cirque glaciers on the sides of mountains

37. Put the following steps in order to describe how the Great Lakes formed: (5PTS)

	After oceans left, water erosion (due to rainfall) and wind erosion carved ancient river basins for 280 my (these became the "trail" the glaciers would follow as they grew into Michigan)
	Many times lake levels rose and fell eroding and depositing material on shores and allowing wind to blow sand, forming dunes.
	Glaciers began to melt/recede 15,000 years ago leaving meltwater behind which filled the basins.
	We were under oceans for 300 million years laying down soft sedimentary rock
	2 million years ago an ice age began and 1 million years ago glaciers fell off the Canadian Shield and into the soft sedimentary rock, crushing the land 300 - 800 feet and following the ancient river basins. This carved the deep basins of the great lakes.

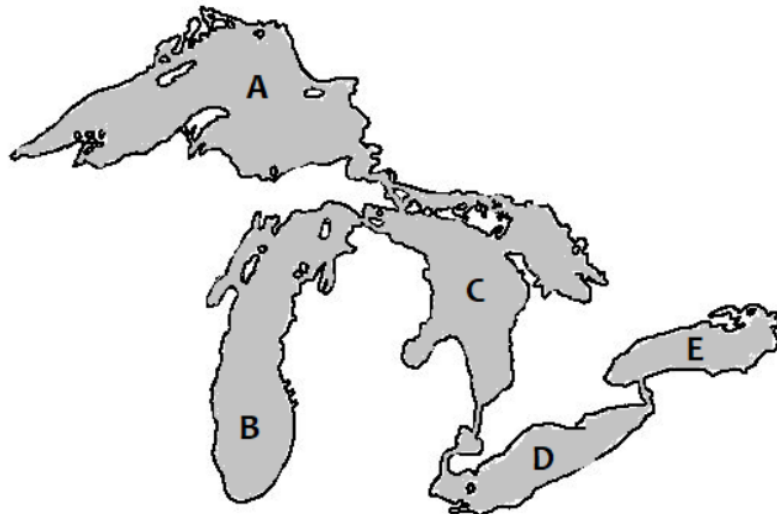
The top layer of a glacier has giant cracks in it. They are called

- a) frost wedges c) erosion zones
 b) crevasses d) firn cracks



- A = _____
- B = _____
- C = _____
- D = _____
- E = _____
- F = _____

WRITE THE NAME OF EACH OF THE GREAT LAKES



- A = _____
- B = _____
- C = _____
- D = _____
- E = _____