

Chapter 7.1 GLACIAL EROSION AND LANDFORMS NAME _____

TYPES OF GLACIERS

1. In order for a glacier to form, more snow needs to fall than what _____.
2. How does snow turn into glacial ice? _____
3. Which glacier type flows in all directions and cover almost everything? _____
4. Which glacier type moves down valleys between mountains? _____

HOW GLACIERS MOVE

5. If ice is distorting and the top layer moves faster than the bottom, this kind of movement is called _____.
6. Basal slip happens because _____ and _____ reduce friction under the glacier.
7. True or False: All glaciers move at the same speed. _____

Matching:

8.	Crevasses	A	End of the glacier (low in valley)
9.	Head of glacier	B	Place where snow is packing and ice is forming (above snowline)
10.	Foot of glacier	C	Giant chunk of glacial ice floating in water
11.	Zone of accumulation	D	Deep cracks at the top of a glacier
12.	Zone of wastage	E	Accumulation and wastage are equal (same size)
13.	advancing	F	A piece of ice breaks off the end of a glacier
14.	retreating	G	Start of the glacier (high on mountain)
15.	Remain stationary	H	Place where glacier ice melts away (below snowline)
16.	Calving	I	Wastage is greater than accumulation (getting smaller)
17.	iceberg	j	Accumulation is greater than wastage (getting bigger)

DRAW A LINE TO CONNECT THE PHRASES

- | | |
|---|-----------------------------------|
| 18. If accumulation is winning... | The glacier remains the same size |
| 19. If wastage / ablation is winning... | The glacier grows |
| 20. If accumulation and ablation are equal... | The glacier shrinks |

21. How much of an iceberg is visible above the water? _____

GLACIAL EROSION

What are the 2 ways glaciers erode? Define each

22.	23.
24.	25.

26. Why does water leaving a glacier often look "milky?"

27. If you look at striations, what can you tell about the glacier? _____

What 4 factors influence the rate of glacial erosion?

1 _____

2 _____

3 _____

4 _____

28. If you want to erode the land to the greatest degree, what should those factors be like?

LANDFORMS FORMED BY GLACIAL EROSION

29. If a river erodes a valley, what shape is it? _____

30. If a glacier follows the path of an old river and then erodes it, what shape is the valley? _____

31. Why are side valleys not as deep? _____

32. What are these higher valleys called? _____

33. In summertime, what might form at a hanging valley? _____

34. What general shape does a cirque take? _____

35. What is the difference between an arête and a horn? _____

GLACIAL DEPOSITION

What are the 2 types of glacial drift? Define them.

36.	37.
38.	39.

40. Rocks moved by a glacier that are different from the underlying bedrock are called _____

MORAINES, OUTWASH PLAINS, AND KETTLES

41. Which moraine is in the middle? _____

42. Which moraine is on the sides? _____

43. Which moraine is at the very end of the glacier? _____

44. Which moraine forms a gently rolling plain from randomly dropped rocks? _____

45. What are the red lines in the picture on page 196? _____

46. Would you find giant rocks in an outwash plain? _____

47. If an ice block gets buried in drift (sediment) and then melts, what forms? _____

48. How is an esker made? _____

49. What shape do eskers take? _____

50. Each glacial period lasted about _____ years.

51. How much of Earth's land was covered during the peak of the last ice age? _____