

Land Builders and Breakers

Identify surface features made by adding or removing Earth materials.

S5E1 "Obtain, evaluate, and communicate information to identify surface features on the Earth caused by constructive and/or destructive processes."

NAME _____

DATE _____

1 READ AND MARK _____ Read it twice

YOUR JOB Underline each named surface feature. Circle words that show material being added or removed, then write C or D beside each feature for constructive or destructive.

Clues on Changing Land

- ① Earth's surface changes when material is added or removed. At a volcano, melted rock called lava can flow out and cool into solid rock. Repeated flows pile up, building a volcanic cone. This is a constructive process because it adds rock to the land. A cone's layers of cooled lava are evidence that new surface material has built up over time.
- ② Moving water can both wear away and build land. A river may carry sand, pebbles, and silt downstream. When the water slows, it drops some of this sediment. Deposited sediment can make a sandbar in the river or help build a delta where the river enters quieter water. These landforms are constructive because the dropped material adds to Earth's surface.
- ③ Other processes remove material. Ocean waves can crash against a rocky coast, loosening and carrying away pieces of rock. Over many years, this destructive action can make a sea cliff move farther inland. A glacier also scrapes rock as it moves, carving a broad U-shaped valley. A retreating cliff or a carved valley provides evidence that material was removed.

2 ANSWER WITH EVIDENCE _____ Use the passage

1 What surface feature is built by repeated lava flows, and why is this process constructive?

2 How does slowing river water help form a sandbar or delta?

3 Name one feature made by a destructive process. What agent causes it?

4 How do a volcanic cone and a U-shaped valley form differently?

3 YOUR TURN _____ Your own words

Write a three-sentence field note about two locations from the passage. In sentence 1, name a constructive feature and explain how it forms. In sentence 2, name a destructive feature and explain how it forms. In sentence 3, state whether each process adds or removes material.

PART 1 • READ AND MARK

Underline each named surface feature. Circle words that show material being added or removed, then write C or D beside each feature for constructive or destructive. Accept any marking that follows this job and points at the right text.

PART 2 • ANSWERS

#	QUESTION	ANSWER
1	What surface feature is built by repeated lava flows, and why is this process constructive?	A volcanic cone. The lava cools and piles up, adding rock to the land.
2	How does slowing river water help form a sandbar or delta?	When the water slows, it drops sediment. The deposited sediment adds material and builds the landform.
3	Name one feature made by a destructive process. What agent causes it?	A sea cliff is changed by ocean waves, or a U-shaped valley is carved by a glacier.
4	How do a volcanic cone and a U-shaped valley form differently?	A volcanic cone forms when lava adds rock. A U-shaped valley forms when a glacier scrapes away rock.

PART 3 • YOUR TURN (SAMPLE ANSWER)

At the river, a sandbar forms when slower water drops sediment. Along the coast, waves remove rock and cause a sea cliff to move inland. The river process adds material, while the wave process removes material.

Accept only passage-supported features and processes: volcanic cone and lava, sandbar or delta and deposited river sediment, sea cliff and waves, or U-shaped valley and a glacier. For the field note, check that the student correctly explains one constructive process, one destructive process, and whether material is added or removed.