

Land in Motion

Sort landforms from changes that reshape them.

WG.11.b "describing major physical and environmental features and how geography may change over time;"

NAME _____

DATE _____

PHYSICAL FEATURE

A physical feature is a natural part of Earth's surface that you can describe by its shape, location, or materials.

A high plateau has a broad, flat top.

GEOGRAPHIC CHANGE

A geographic change is a process or event that reshapes Earth's surface over time.

Wind slowly wears away a sandstone arch.

1 SORT _____ 8 items

PART 1 SORT: Circle FEATURE or CHANGE for each item, then for PART 2 PROVE IT, choose two items and explain which words helped you decide.

1. A limestone cave below the ground

FEATURE

CHANGE

2. A glacier melts and exposes bare rock

FEATURE

CHANGE

3. A river deposits sediment and extends a delta

FEATURE

CHANGE

4. A broad plain with rich soil

FEATURE

CHANGE

5. A river valley between hills

FEATURE

CHANGE

6. Lava cools and builds a new island

FEATURE

CHANGE

7. A desert with sand dunes

FEATURE

CHANGE

8. Waves erode a cliff, making it retreat

FEATURE

CHANGE

2

PROVE IT

Explain your thinking

Pick two items from Part 1. For each one, tell how you knew where it belonged.

ITEM # _____ HOW I KNEW _____

ITEM # _____ HOW I KNEW _____

3

MAKE YOUR OWN

One of each

PART 3 MAKE YOUR OWN: Write one new FEATURE example and one new CHANGE example.

FEATURE _____

CHANGE _____

CHALLENGE

Choose one CHANGE item and write two sentences telling how a physical feature could look different after the change. Then apply the idea to this regional case: At Hunga Tonga-Hunga Ha’apai in the South Pacific, volcanic land joined two older islands in 2015. The January 2022 eruption removed that new land and parts of the older islands (NASA). Describe the island feature before the eruption and explain how the eruption changed its land area. Use separate paper if needed.

PART 1 • SORT

#	ITEM	CATEGORY	WHY
1	A limestone cave below the ground	FEATURE	A cave is a natural physical feature.
2	A glacier melts and exposes bare rock	CHANGE	Melting changes the surface over time.
3	A river deposits sediment and extends a delta	CHANGE	Deposition is a process that changes the shape of a delta.
4	A broad plain with rich soil	FEATURE	A plain is a natural physical feature.
5	A river valley between hills	FEATURE	A valley is a natural physical feature.
6	Lava cools and builds a new island	CHANGE	Cooling lava creates new land over time.
7	A desert with sand dunes	FEATURE	A desert and its dunes are physical features.
8	Waves erode a cliff, making it retreat	CHANGE	Erosion changes the location and shape of the cliff.

PART 2 • PROVE IT

Accept any explanation that names the deciding feature from the rule box for the chosen item.

PART 3 • MAKE YOUR OWN (SAMPLE ANSWERS)

- **FEATURE:** A chain of islands lies in the ocean.
- **CHANGE:** An earthquake shifts the ground and changes a river's path.

Challenge: Waves wear away rock from the cliff in item 8. Over time, the cliff edge retreats inland as rock is removed. Regional response: The feature was volcanic island land joining two older islands in Tonga. The 2022 eruption removed the connecting land and parts of the older islands, reducing the land above the sea.

The correct sort sequence is FEATURE, CHANGE, CHANGE, FEATURE, FEATURE, CHANGE, FEATURE, CHANGE. For Part 2, accept explanations that point to a named landform for FEATURE or words showing a process over time for CHANGE. Require the regional explanation as well as the original response.

Regional source: NASA Earth Observatory, Dramatic Changes at Hunga Tonga-Hunga Ha'apai (2022).