

LESSON 17 • OUTLINING SKILLS (LEVEL A)

CONSTRUCTING AN OUTLINE ON YOUR OWN

Textbook Pages 21–22

READING SELECTION: CAVES

[Par. 1] The five most commonly-known kinds of caves include: wind, wave, lava, ice, and limestone. Caves are hollow spaces under the ground which are made by nature. They are not artificial. [Par. 2] Wind caves are found in the sides of mountains. Winds constantly blowing grind hollows in the rocks. Gradually the hollows become larger and larger until a cave is formed. [Par. 3] In cliffs along the sea, waves beat against soft rocks. The waves cause holes to form. As the rocks wear away, another type of cave is formed. [Par. 4] Lava comes from melted rocks which pour out of live volcanoes. As lava reaches the surface, an outer shell hardens. However, oftentimes soft lava continues to flow underneath and forms tunnels. These tunnels sometimes form caves. [Par. 5] Limestone caves are the largest and also the greatest in number. Because limestone forms in layers, it splits both up and down, as well as sideways when it cracks. As water from above the ground seeps through the cracks, it picks up carbon dioxide and forms an acid. Now the limestone dissolves even faster than with just plain water. As water reaches a layer of rock which it cannot go through, it moves sideways. In this way many rooms are formed inside the caves.

WORD & PHRASE BANK

20 ITEMS

- What is a cave
- Hollow space underground
- Something made by nature
- Wind caves
- Found in mountainsides
- Wind grinds hollows in rocks
- Wave caves
- In cliffs along sea
- Waves wear holes in cliffs
- Lava caves
- Melted rocks flow from volcanoes
- Harden on the surface
- Soft lava flows underneath
- Tunnels form caves
- Limestone caves
- Largest and greatest in number
- Limestone layers crack and split
- Surface water mixes with carbon dioxide
- Forms an acid
- Quickly dissolves limestone

CAVES

- I. _____
A. _____
B. _____
- II. _____
A. _____
B. _____
- III. _____
A. _____
B. _____
- IV. _____
A. _____
B. _____
C. _____
D. _____
- V. _____
A. _____
B. _____
C. _____
1. _____
2. _____

LESSON 17: CONSTRUCTING & PROVING OUTLINES (LEVEL A)

Full Score: 20 Points

CAVES

- I. What is a cave**
- A. Hollow space underground
 - B. Something made by nature
- II. Wind caves**
- A. Found in mountainsides
 - B. Wind grinds hollows in rocks
- III. Wave caves**
- A. In cliffs along sea
 - B. Waves wear holes in cliffs
- IV. Lava caves**
- A. Melted rocks flow from volcanoes
 - B. Harden on the surface
 - C. Soft lava flows underneath
 - D. Tunnels form caves
- V. Limestone caves**
- A. Largest and greatest in number
 - B. Limestone layers crack and split
 - C. Surface water mixes with carbon dioxide
 - 1. Forms an acid
 - 2. Quickly dissolves limestone

The Complete Sentence Proof Frame (Textbook Page 22 Key)

Proof: (I) What is a cave, and what kinds of CAVES are commonly found? (II) Wind caves, (III) Wave caves, (IV) Lava caves, and (V) Limestone caves are the most common. A CAVE is (I. A) hollow space underground, (I. B) something made by nature. CAVES made by (II) wind are (II. A) found in mountainsides, and (II. B) wind grinds hollows in rocks. CAVES made by (III) waves are (III. A) in cliffs along sea, and formed when (III. B) waves wear holes in cliffs. CAVES made by (IV) lava are formed as (IV. A) melted rocks flow from volcanoes, (IV. B) harden on the surface, and (IV. C) soft lava flows underneath, causing (IV. D) tunnels form caves. CAVES made in (V) limestone are (V. A) largest and greatest in number. As (V. B) limestone layers crack and split, (V. C) surface water mixes with carbon dioxide. Surface water with carbon dioxide (C. 1) forms an acid and (C. 2) quickly dissolves limestone.

Earth Science & Outlining Mechanics Guide (20 Total Points)

Cave Type	Geological Agent	Key Formational Mechanism	Outlining Tier
Definition	Natural processes	Hollow subterranean chambers produced without human intervention.	Topic I (A, B)
Wind Caves	Aeolian abrasion	Continuous wind blowing grinds hollows into exposed mountain rockfaces.	Topic II (A, B)
Wave Caves	Hydraulic action	Pounding coastal surf excavates caverns along weak cliff lines.	Topic III (A, B)
Lava Caves	Volcanic cooling	Crust solidifies while molten interior drains away, leaving hollow tubes.	Topic IV (A–D)
Limestone	Chemical weathering	Carbonic acid seeps through fractures, dissolving calcium carbonate bedrock.	Topic V (A–C, 1–2)