The background of the slide is a photograph of a rock surface. It shows several circular and oval-shaped fossil impressions, likely brachiopods or bryozoans, which are dark against the lighter-colored rock. The rock surface is textured and appears to be part of a larger geological formation.

Activity V: Weathering and Erosion Forces Expose Ancient Rocks and the Fossils They Hold

Engage:

- 1) What happens to rocks and rock formations over time?
- 2) What causes this to occur?

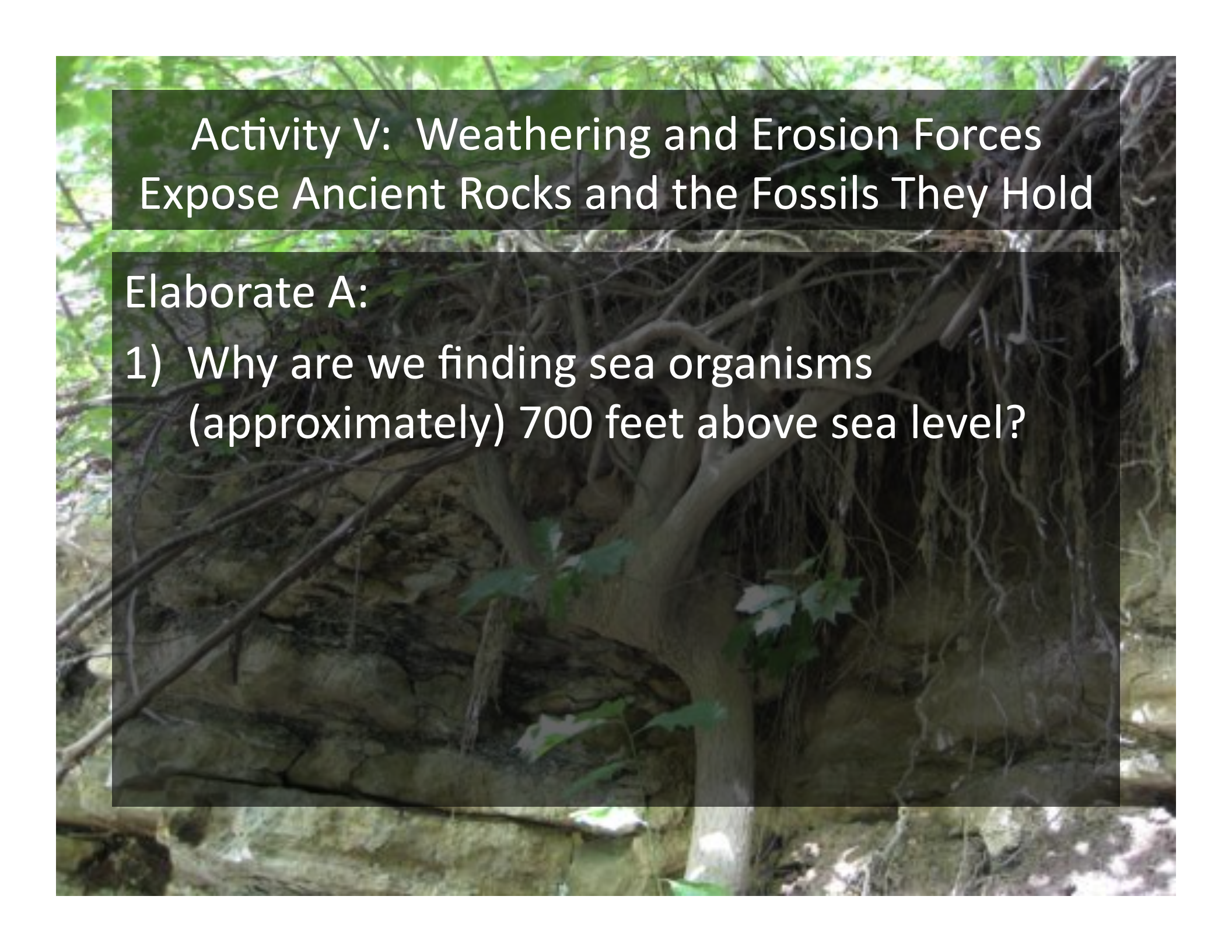
Explore:

- 1) Hypothesize about what has happened to the sediments laid down in the Elma, NY area during the Mid-Late Devonian Period leading up to the conditions found in the area today. Think, pair, share.

Activity V: Weathering and Erosion Forces
Expose Ancient Rocks and the Fossils They Hold

Explain A: View *GPS Waypoint 3* video clip.

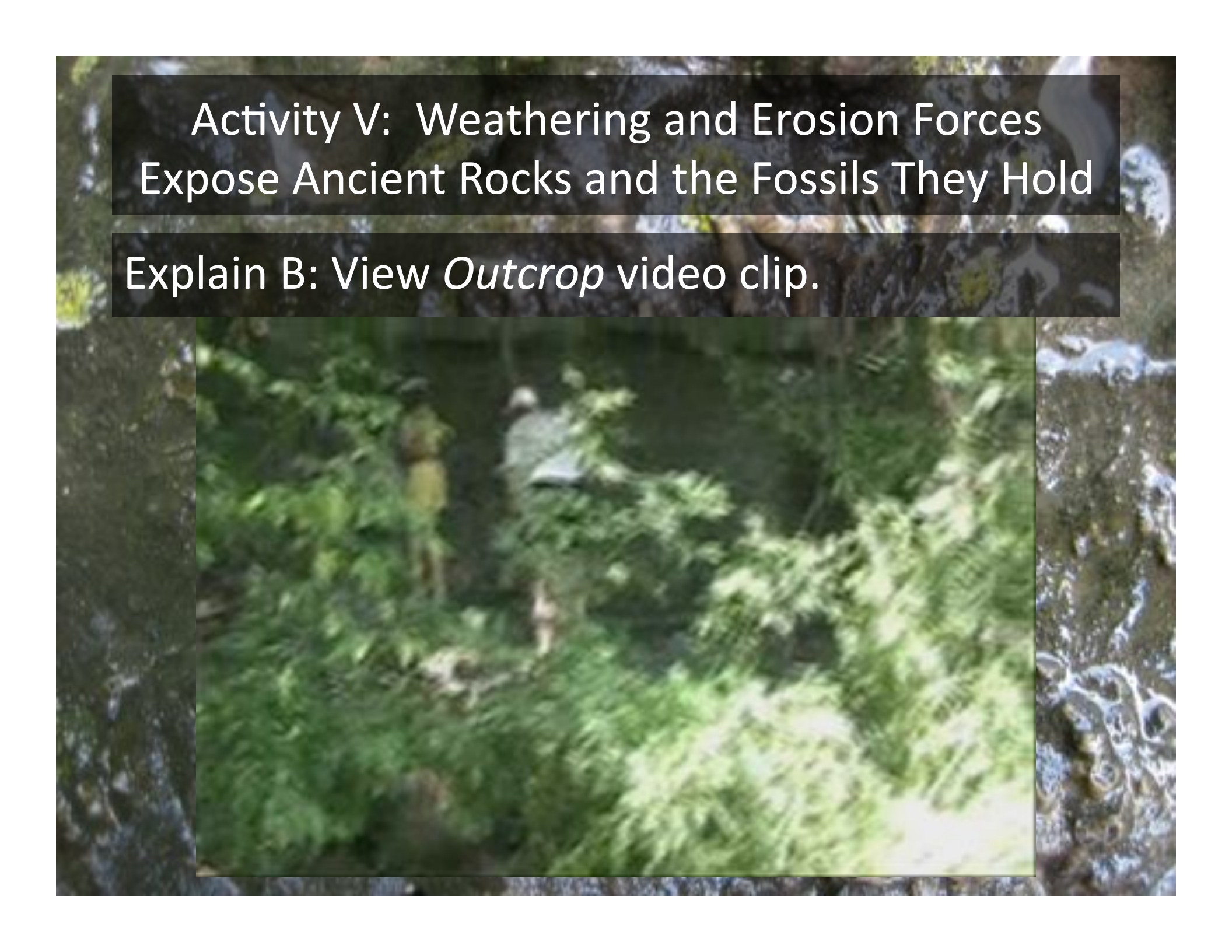


A photograph of a tree trunk with its roots exposed on a rock face, illustrating weathering and erosion forces. The tree trunk is light-colored and has several large, dark roots extending outwards. The rock face is dark and textured, showing signs of weathering. The background is filled with green foliage.

Activity V: Weathering and Erosion Forces Expose Ancient Rocks and the Fossils They Hold

Elaborate A:

- 1) Why are we finding sea organisms (approximately) 700 feet above sea level?



Activity V: Weathering and Erosion Forces
Expose Ancient Rocks and the Fossils They Hold

Explain B: View *Outcrop* video clip.



Activity V: Weathering and Erosion Forces Expose Ancient Rocks and the Fossils They Hold

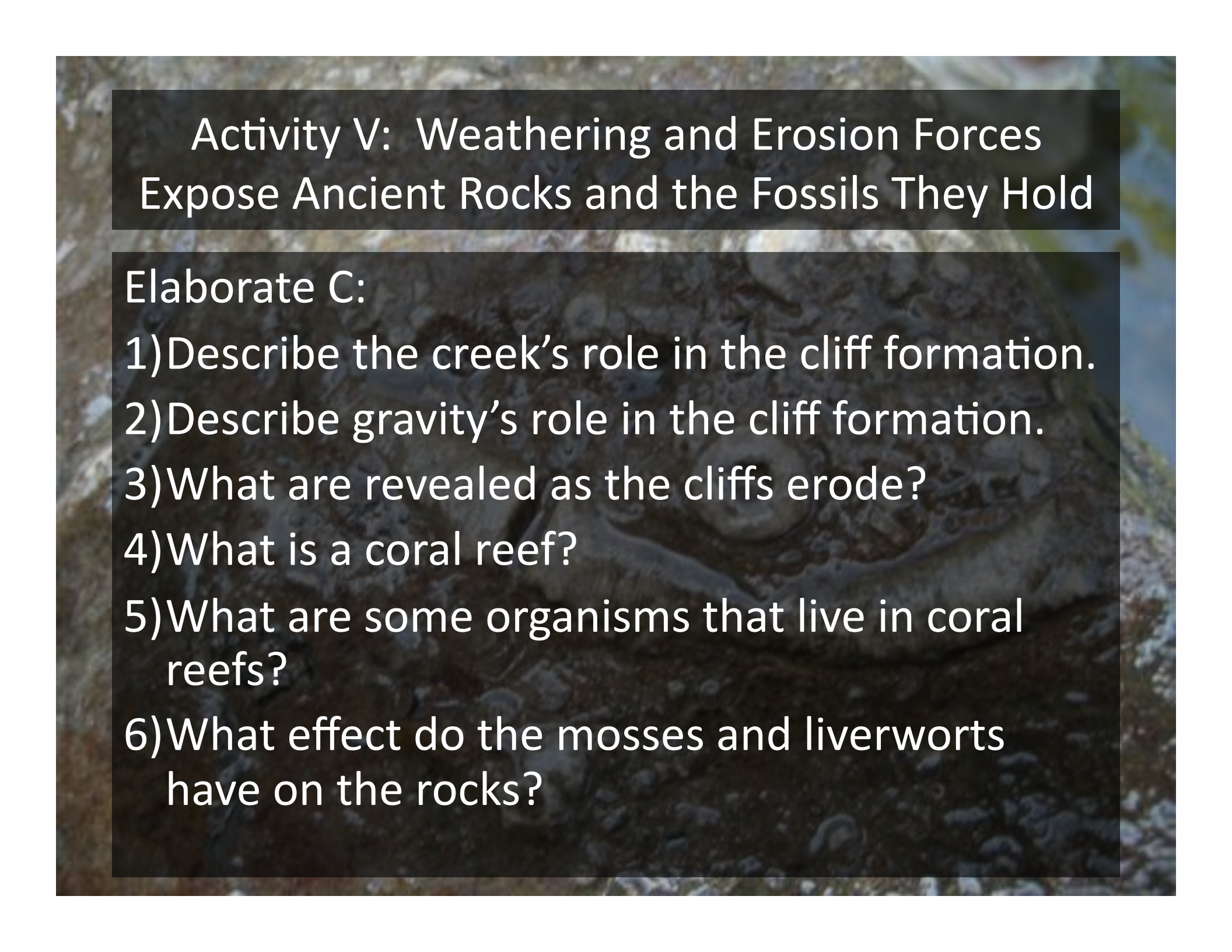
Elaborate B:

- 1) Describe the outcrop's structure.
- 2) How does its structure relate to its formation?
- 3) Define weathering.
- 4) What are the types of weathering?
- 5) How do trees and other plants cause weathering?

Activity V: Weathering and Erosion Forces
Expose Ancient Rocks and the Fossils They Hold

Explain C: View *Weathering #1* video clip.



The background image shows a close-up of a rock face with a creek. The rock is dark and has several large, circular fossil impressions. The creek is visible on the right side of the image, and the overall scene is outdoors.

Activity V: Weathering and Erosion Forces Expose Ancient Rocks and the Fossils They Hold

Elaborate C:

- 1) Describe the creek's role in the cliff formation.
- 2) Describe gravity's role in the cliff formation.
- 3) What are revealed as the cliffs erode?
- 4) What is a coral reef?
- 5) What are some organisms that live in coral reefs?
- 6) What effect do the mosses and liverworts have on the rocks?

Activity V: Weathering and Erosion Forces
Expose Ancient Rocks and the Fossils They Hold

Explain D: View *Weathering #2* video clip.



Activity V: Weathering and Erosion Forces Expose Ancient Rocks and the Fossils They Hold

Elaborate D:

- 1) What effects does water have on rock formations?
- 2) Relate the above effects to the video clip.
- 3) Does weathering/erosion occur at a constant rate?
- 4) What factors affect the rate of weathering and erosion of a particular rock formation?
- 5) Why has the creek bed's erosion 'slowed down' in its present state?

Evaluate:

- 1) How did weathering and erosion form the rocks we're finding these fossils in approximately 370 million years ago?
- 2) How has weathering and erosion enabled us to find the fossils we will be studying next?