



What is Chalk? (Grades 4 and up)

Lesson Description:

The Black Belt region of Alabama is characterized by white chalk layers referred to as Selma Chalk. The chalk is made up of small particles of clay and microscopic spherical bits of fossilized algae cells that lived during the Cretaceous Period called coccoliths (coc·co·lith). . The chalk beds were created millions of years ago by sea waters that once covered the lower half of present-day Alabama. Deposits at the bottom of the ocean accumulated into chalk beds formed during the Cretaceous Period, approximately 145 to 66 million years ago. When the chalk layer breaks down over time, it turns into a rich, black soil. The Black Belt region got its name from these dark soils. This soil is home to unique prairie and wildlife. As mentioned in the Story in the Land, the chalky prairies are so distinct that they can be seen in photographs taken from space.

In this lesson, teachers will explain the unique chalk formation in Alabama and Mississippi, the geological origin of “Black Belt,” and how chalk is used by people today.

Standards from Alabama Science Course of Study

4th, 9th-12th Grade Alabama Studies

#15 Identify geological regions in Alabama and the southeastern United States.

- Students will understand and describe what makes up the base layer of the Black Belt and the origin of “Black Belt.”

Objectives

- Students will learn what created the unique geology of the Black Belt.
- Students will understand where the Black Belt got its name.
- Understand what Alabama and the Southeast would have looked like millions of years ago, including the types of species that inhabited the area.

Materials

- Satellite photo of the Southeast
- Geological map of Alabama
- Chalk samples (Email museum bmast@uwa.edu for samples if needed)
- Fossil: *Exogyra Ponderosa* (3D File <https://viewshape.com/shapes/3e76b04cba57>)
- *Story in the Land* Video <https://www.youtube.com/watch?v=uagRBIX1wnQ&t=4s>



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Black Belt Museum
www.blackbeltmuseum.com



Activity

1. Students will compare and contrast differences in the Southeast region's geography/soil using the satellite photo and geological map.
2. Look at the chalk pieces provided. Why is the Black Belt region made up of chalk? Where does this chalk come from? What fossils might be found in layers of chalk?
3. Discuss what chalk is used for today. Provide samples of chalk to show or have students bring in their own examples. Examples might include putties, cements, scouring powders, and sidewalk chalk for drawing/writing.

Evaluation #15 Discuss and complete