

Name \_\_\_\_\_ Class \_\_\_\_\_ Date \_\_\_\_\_

## Book Cliffs

The Book Cliffs wind for approximately 500 km (300 miles) from central Utah to western Colorado. The cliffs are composed of shale capped by the resistant Cretaceous Mesaverde sandstone. The nearly flat plateau in the image is shrinking from all directions due to headward erosion. The plateau is tilted to the northeast. This tilting makes erosion more prominent on the upraised southwestern end, where we see the Book Cliffs.

1. Do the streams at the base of the cliffs appear to be depositing debris onto the slopes or carrying it away? \_\_\_\_\_  
\_\_\_\_\_
2. Why might you expect the streams at the base of the cliffs to be intermittent? \_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
3. What is the white line that enters the view at J35, winds its way around the canyons, and exits the view at A6? \_\_\_\_\_
4. In what direction will the Book Cliffs migrate in the future? Explain how this process will take place. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
5. Why do all of the streams on top of the plateau flow away from the cliffs? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

(Continued...)

6. The easily eroded Mancos shale lies beneath the Cretaceous Mesaverde sandstone. Besides the cliff face, where else in this view would you expect to find the Mancos shale exposed? \_\_\_\_\_

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7. Where is the drainage divide between the water that flows to the southwest and water that flows to the northeast in this image? \_\_\_\_\_

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