Activity: Why Settle at Mesa Verde

Traditional geologic maps — sometimes crisscrossed with lines, blotted with colors, and marked with strike and dip symbols — have been used for at least 200 years to depict the geologic makeup of the Earth. Consider the map and other images of Mesa Verde National Park in Colorado shown here. Each provides a different perspective on the geologic makeup of the area. President Theodore Roosevelt created the 52,485-acre Mesa Verde National Park in 1906 to recognize and protect sites of natural and historical significance. The park represents the nation's largest archaeological preserve, including some 600 "cliff dwellings" — homes excavated, built, or otherwise fashioned in the niches and caves of cliffs — that were left behind by early Native Americans. Over many centuries, Mesa Verdeans fashioned various types of shelters. More than 900 years ago, they started building the massive cliff dwellings that we see today. They were hunters, gatherers, and subsistence farmers who grew food such as corn. The Mesa Verdeans were driven out by drought some 700 years ago. This profound disruption of their community at what we now call Mesa Verde is an example of climate change. This climate change was due to natural causes, unlike the man-made climate change that the world now faces.

Materials

- Notebook
- Pen
- Map of Mesa Verde for Activity

Procedure:

1. Discuss what you know about the geology of Mesa Verde National Park. What would you expect to find in the types of rocks, landforms, and plants common there? Record your thoughts in your notebook — and continue recording your answers to questions in the following steps.
2. Look at the top map of Mesa Verde here. Consider the shapes and patterns you see. Where do you think water erosion carved hollows in the cliffs? What advantages do you think this landscape offered people who settled here — in terms of dwellings? food? defense from attack?
3. Now consider the geological composition of the area. Caves and alcoves in the cliffs offered some shelter, but early inhabitants did not settle for that. What material might they have used to build adobe dwellings within the cliffs? What was readily available in the local geology? Research online to determine which types of Mesa Verde earth material would have been useful for building.
4. Water is a staple not only of life, but of construction. How do you suppose water was important to Mesa Verdeans?
5. In addition to hunting, Mesa Verdeans survived by gathering and cultivating certain plants, including beans and squash. Research online to determine which types of Mesa Verde earth material would have been useful for growing food. Do you think you would have enjoyed dining in Mesa Verde hundreds of years ago?
6. Discuss what living at Mesa Verde must have been like for early inhabitants. Learn more at the National Park Service's Mesa Verde website (https://www.nps.gov/meve/index.htm).
7. Now that you have explored Mesa Verde, consider what led people to first settle in your home town or state. Visit the website of your state geological survey or state geologist (http://www.stategeologists.org/) and the National Geologic Map Database (http://ngmdb.usgs.gov/). Find a geological map for your area. What shapes and patterns do you notice? Where is water? Where are potentially valuable natural resources? Where could farming, hunting, or ranching take place? Where have people thrived?
8. Mesa Verde National Park was established in part to provide federal protection for a geoheritage site where modern-day scavengers had begun stealing and damaging irreplaceable artifacts such

as pottery and carvings. Discuss what portions of your area's geoheritage are worth conserving. How can today's generation make informed decisions about this heritage to preserve it for the generation of tomorrow?