Expository Text

Geographers view Arizona in terms of three major physiographic regions or provinces: the Colorado Plateau, the Central Highlands Transition Zone and the Basin and Range Province. These regions have distinct topography and geologic origins. The Colorado Plateau in northern and eastern Arizona ranges from 4,000 to 9,000 feet above sea level – its rock formations and deep canyons are known around the world; the Grand Canyon is one of them. The Mogollon Rim forms the edge of the Colorado Plateau in Arizona.

The region below the Rim, called the Central Highlands, is characterized by extensive forests of ponderosa pine and mixed conifers. Unlike the Colorado Plateau to the north, granitic and metamorphic rocks are exposed in many areas. The heat, pressure and water associated with metamorphism caused intense mineralization of nearby rocks, particularly limestone, forming copper minerals. These valuable copper deposits are still being mined in the Clifton-Morenci area and the Globe-Miami area.

The Basin and Range Province includes the south and western portions of the state and is recognized by successive mountain ranges, so called “sky islands” isolated from each other by broad basins. Many sky islands (like the Santa Catalinas, Pinalenos and Huachucas) exceed an elevation of 9,000 feet above sea level.

Water resources vary in each of these provinces. The Colorado Plateau consists of mostly layered hard rock, sandstone and limestone. The transition zone has a mixture of both fractured rock and alluvial basins. Fractured rock aquifers are much more limited than the aquifers in the Basin & Range. Much of the surface water runs seasonally mostly in the winter and following summer thunderstorms. Vast sand and gravel alluvial aquifers, in the basins between mountain ranges, characterize the Basin and Range Province. Surface water is scarce in this province. Aquifers are discussed in detail in Graphics 6, 7 and 8.

Objectives

Students will:
- Define physiographic
- Interpret a map and describe the three provinces in Arizona
- Analyze the diversity of life found within Arizona and examine the causes for that biodiversity
- Compare and contrast the three physiographic provinces found in Arizona

Suggested Extensions

- Read excerpts and engage in the suggested lesson
- Report on a city in Arizona and identify the physiographic province in which it is found
- Discuss the different biomes (and plants and animals) in Arizona and identify the provinces in which they are found