

**Standard 5-6:** The student will demonstrate an understanding of developments in the United States since the fall of the Soviet Union and its satellite states in 1992.

**5.6.2** Explain how humans change the physical environment of regions and the consequences of such changes, including use of natural resources and the expansion of transportation systems. (P, G, E)

**Taxonomy Level:** B 2 Understand/Conceptual Knowledge

**Previous/future knowledge:**

In 1<sup>st</sup> grade students compared the ways that people use land and natural resources in different settings across the world, including the conservation of natural resources and the actions that may harm the environment (1-2.2).

In 2<sup>nd</sup> grade, students summarized changes that have occurred in the life of the local community over time, including changes in the use of the land and in the way that people earn their living there (2-2.1).

In 3<sup>rd</sup> grade, students explained the effects of human systems on the physical landscape of South Carolina over time, including the relationship of population distribution and patterns of migration to natural resources, climate, agriculture, and economic development (3-1.4).

In 7<sup>th</sup> grade, students will explain global influences on the environment, including the effects of increases in population, the growth of cities, and efforts by citizens and governments to protect the natural environment (7-7.3). Students will also summarize the dangers to the natural environment that are posed by population growth, urbanization, and industrialization (7-7.7).

In Global Studies students will summarize the impact of economic and political interdependence on the world, including efforts to control population growth, economic imbalance and social inequality and efforts to address them, the significance of the world economy for different nations, and the influence of terrorist movements on politics in various countries (GS 6.4).

**It is essential for students to know:**

Humans alter the physical environment and these changes have consequences. Students should be able to make a causal connection between human actions and their short term and long term effects on the environment. Examples to include when discussing this connection are: the production of oil, natural gas, and petroleum products; coal mining; increasing urban population and consumerism; and the expansion of transportation networks, including the prevalence of and impact of automobiles. Each of these activities involves the creation of byproducts that contribute to pollution of the environment. Pollutants contribute to air and water pollution, impact the atmosphere and contribute to global warming. Global warming has resulted from the hole in the ozone layer caused by pollutants and led to the melting of the polar ice caps. Concerns about global warming and about the worldwide extinction of plants and animals have prompted conservation efforts. Increases in world population and the demand this places on limited world resources has resulted in an increased awareness that Americans use more resources and create more pollution than others in industrialized nations. However, this has not resulted in significant policy changes in the United States. Because these environmental impacts have occurred throughout American history, they may be discussed at any time in the curriculum when they are a natural result of historical changes such as during industrialization of the late 19<sup>th</sup> century or in the post-World War II period of expanding population and consumerism.

**It is not essential for students to know:**

Students do not need to be able to identify specific people, events, or locations. It is not essential for students to understand each of the unique dynamics associated with the various methods humans use to alter the physical environment. Understanding the consequences of these decisions is of utmost importance. Students do not need to understand the arguments of the opponents of the importance of global warming. Nor do they need to know about the international attempts to address these concerns such as the Kyoto Treaty

**Assessment guidelines:**

Appropriate assessments require students to **explain** how humans change the physical environment of regions and the consequences of such changes. Students should be able to **summarize** the cause and effect relationship of human actions and environmental consequences.