Science GE DOK Alignment Chart EARTH/SPACE SCIENCE Grade 7-8 GE 50

DOK Levels	GE Statement with Ceiling DOK	Science Concepts	Resources/Practice Items
Enduring Knowledge: Natural resources and agricultural systems are managed for specific purposes and in a variety of ways.			
DOK 2-3 **DOK 2-3** **DOK 2-3**	**S5-6: 50 Students demonstrate their understanding why and how natural resources are managed by…** ● Explaining why certain natural/ agricultural resources grow and survive in specific topographic/ geological regions of Vermont. **GE Connection: S7-8: 34** **AND** ● Describe and explain how current agricultural and/or natural resource practices may have widespread and interdependent effects on multiple portions of Vermont's environment. **GE Connection: S7-8: 36** **GE Connection: S7-8: 49** **AND** ● Identify and evaluate the relationships among the components of a Vermont natural/agricultural resource systems. (e.g. Lake = system; Components are biotic factors, abiotic factors, lake use and development) **GE Connection: S7-8: 36** **GE Connection: S7-8: 37** **GE Connection: S7-8: 49**	a. In any particular area the existence of natural/agricultural resources depends upon the physical conditions of that environment. b. Human practices impact the sustainability of natural/agricultural resources. The benefits of earth's resources (water, air soil, trees) can be reduced by deliberately or inadvertently polluting them. c. A relationship exists between the quality of management practices and the ability of the environment to sustain life. Management of natural/agricultural resources prolongs the productivity of the system.	--Compare the physical conditions and existing natural/agricultural resources found in two topographical/geographical regions of Vermont. --Nature Conservancy Preserves--map http://www.nature.org/wherewework/northamerica/states/vermont/preserves/ University of Vermont Natural Areas—map http://www.uvm.edu/~envprog/?Page=naturalareas/default.html --Develop a plan to reduce/minimize the agricultural impact of a farm on a local stream environment. --Create an annotated poster/chart/collage of agricultural or natural resource practices occurring in Vermont. --Develop a visual representation of the interdependent effects of several of the current Vermont agricultural and natural resource practices. --Vermont Agricultural Management Practices http://www.vermontagriculture.com/regulations.htm -- Develop a logical argument to defend a specific environmental management practice. (e.g. use of lampricide in the lake). --Evaluate when and how to harvest trees, fish, and wildlife in your region of Vermont and write a news article reporting your findings. --Based on sound environmental management practices, develop and defend a position on where to locate a business or a home, or a wind farm. --Vermont Department of Environmental Conservation site http://www.anr.state.vt.us/dec/dec.htm --Vermont Fish and Wildlife Management Areas http://www.vtfishandwildlife.com/library/reports_and_documents/fish_and_wildlife/WMA_Habitat_Report_2010.pdf