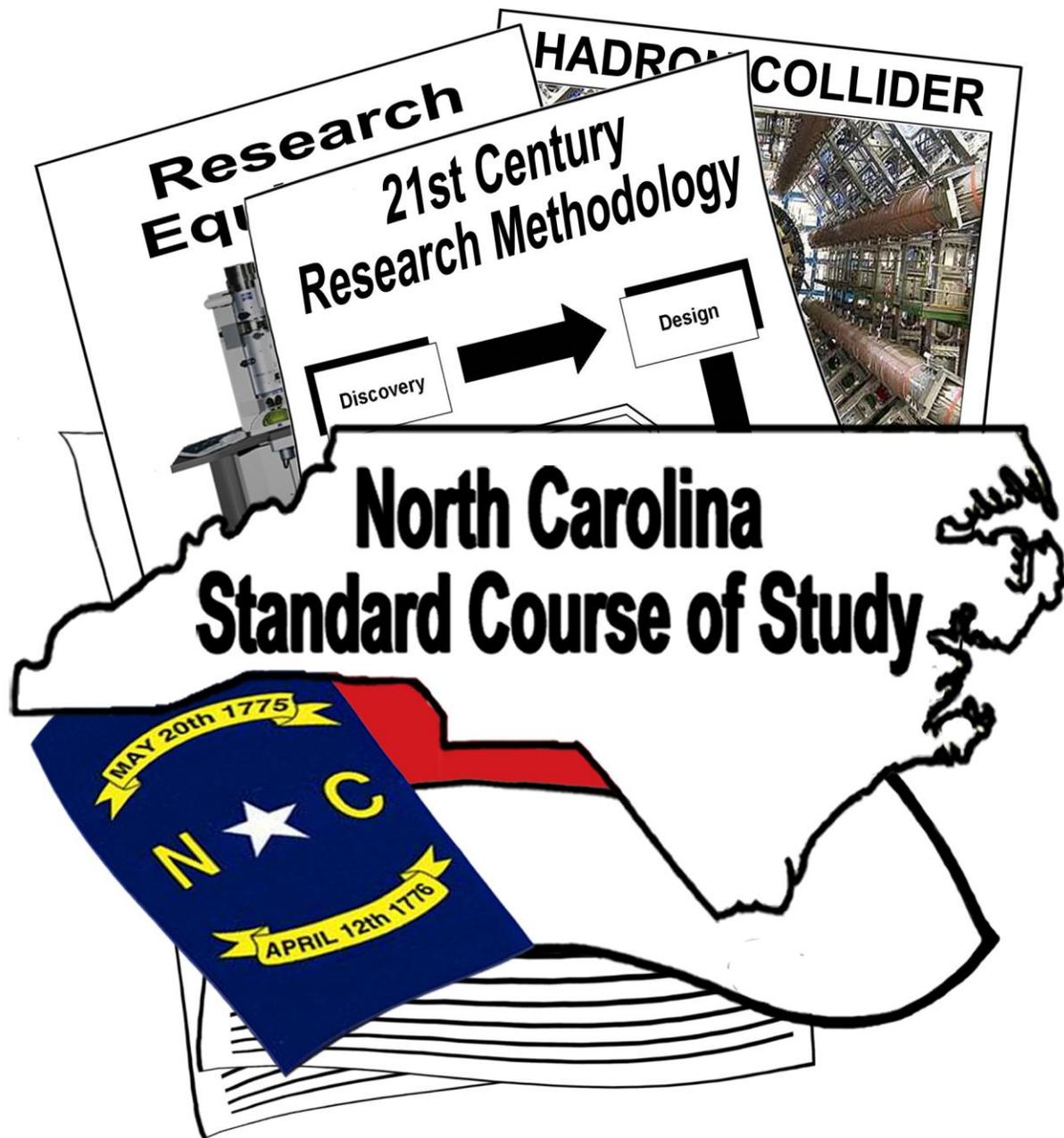


Cumberland County Schools **Curriculum Guide** Earth and Environmental Science

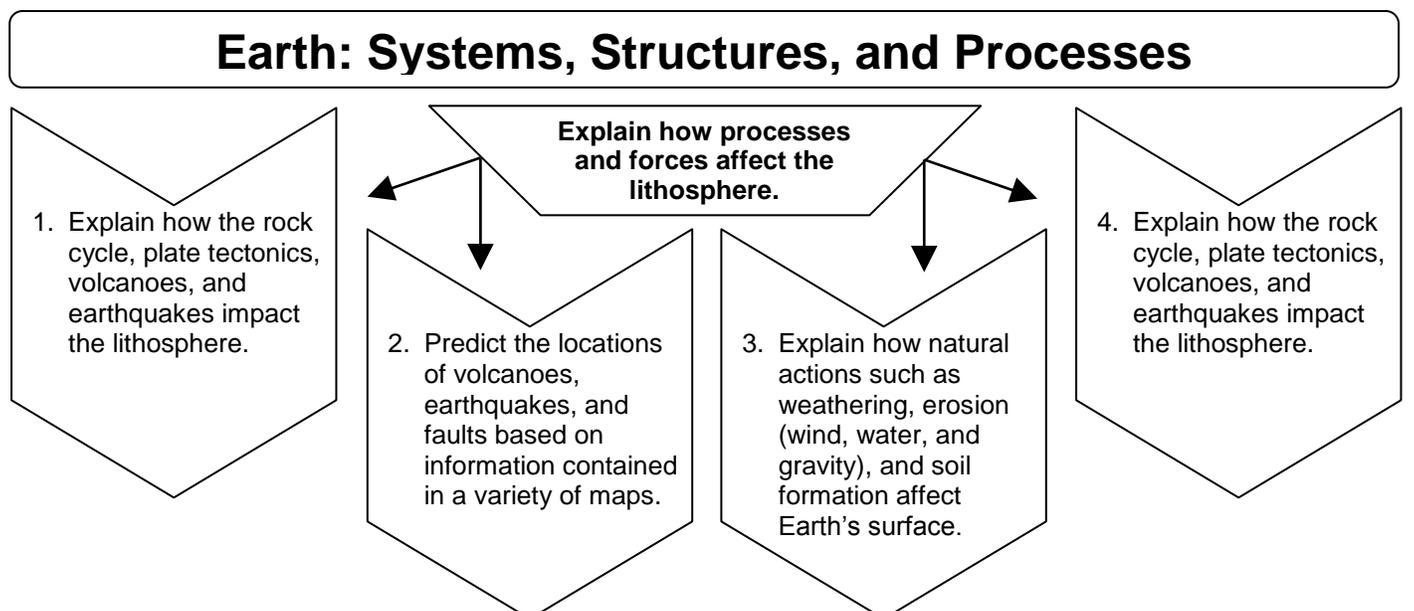
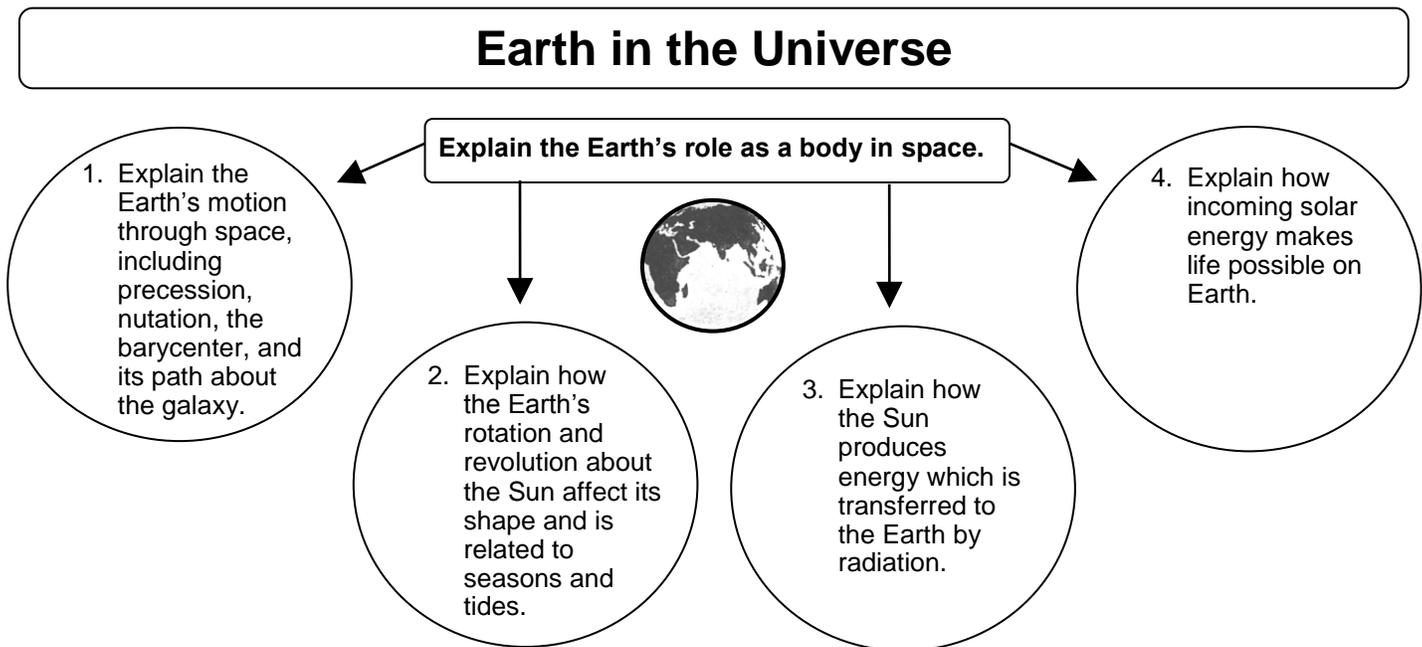


High School Level

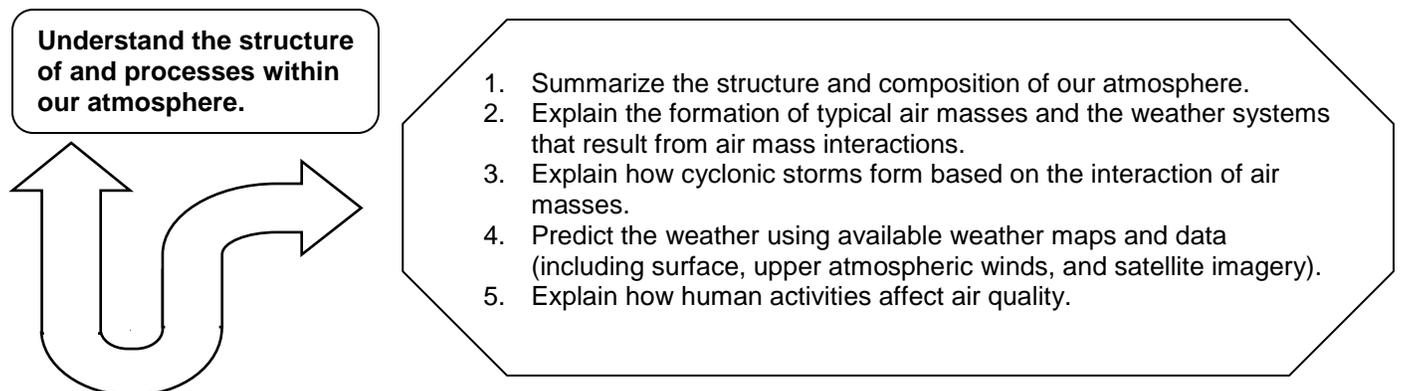
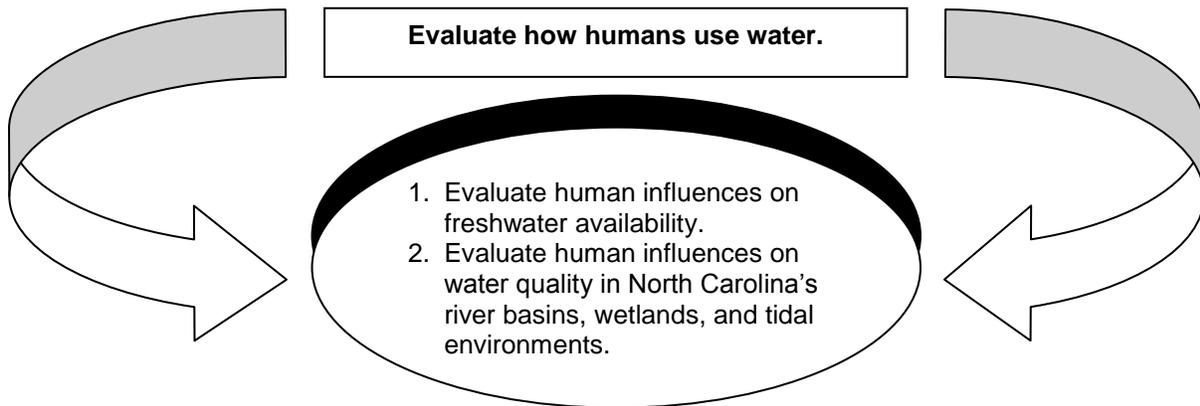
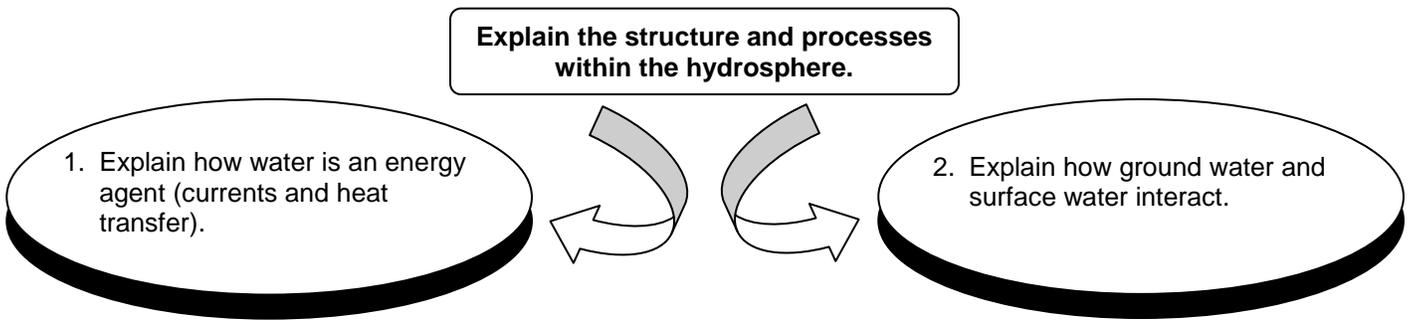
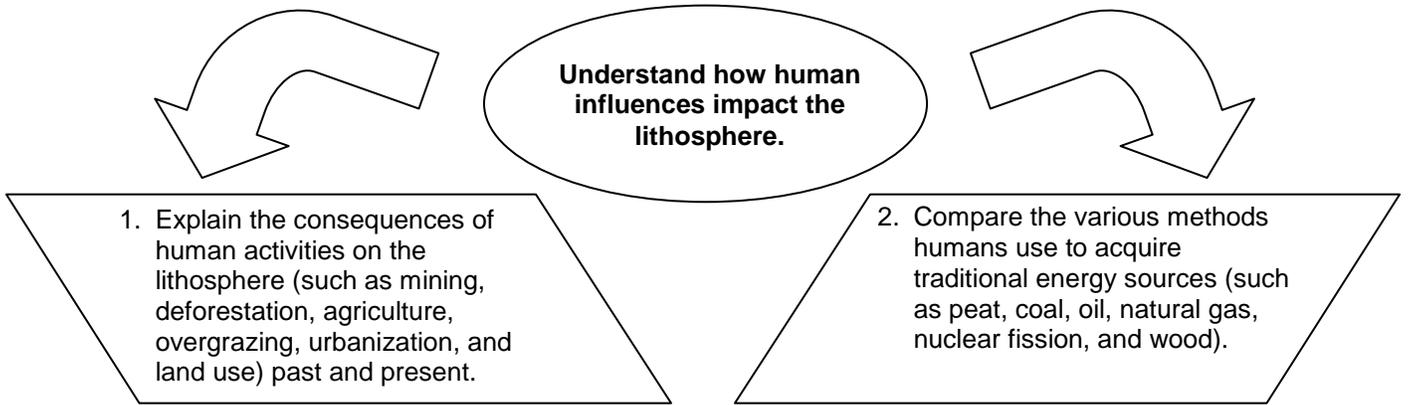
EARTH AND ENVIRONMENTAL SCIENCE

Science, by nature, is an inquiry-based discipline whereby students gain knowledge through observation and experimentation. Scientific investigations involve collection of relevant evidence, use of logical reasoning, application of imagination to devise hypotheses, and explanations to make sense of collected evidence. The process skills of scientific inquiry support development of reasoning and problem-solving ability and are the core of scientific methodologies.

The high school Earth and Environmental Science curriculum encompasses the following strands: Earth in the Universe and Earth: Systems, Structures, and Processes. Students begin with an introduction to scientific measurement and the process of scientific inquiry. In the Earth in the Universe strand, students will study the Earth's motion, rotation, and revolution and how the Sun's energy is converted to make life possible on Earth. In the Earth: Systems, Structures, and Processes strand, students will study the collective and individual interaction of the lithosphere, hydrosphere, atmosphere, and biosphere. Human impact on each of these will be evaluated.

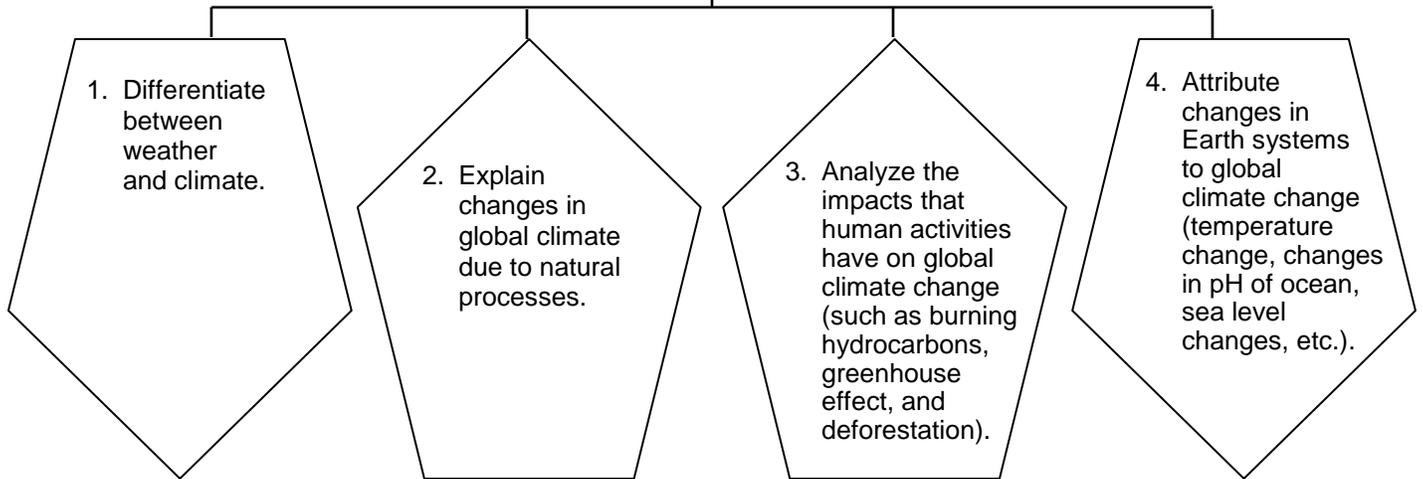


Earth: Systems, Structures, and Processes (Continued)



Earth: Systems, Structures, and Processes (Continued)

Analyze patterns of global climate change over time.



Explain how the lithosphere, hydrosphere, and atmosphere individually and collectively affect the biosphere.

1. Explain how abiotic and biotic factors interact to create the various biomes in North Carolina.

2. Explain why biodiversity is important to the biosphere.

3. Explain how human activities impact the biosphere.

1. Evaluate alternative energy technologies for use in North Carolina

2. Critique conventional and sustainable agriculture and aquaculture practices in terms of their environmental impacts.

Evaluate human behaviors in terms of how likely they are to ensure the ability to live sustainably on Earth.

3. Explain the effects of uncontrolled population growth on the Earth's resources.

4. Evaluate the concept of "reduce, reuse, recycle" in terms of impact on natural resources.