***Elementary Examples of Essential Questions***

From Southwest Elementary School: First Grade: “Won’t You Be My Neighbor?” Unit (Social Studies)

* What is a role?
* What roles do individuals have in the family?
* How do individuals and family display roles within their community?
* How can we compare and contrast individuals and families within our community?
* What is diversity?
* How does our community benefit from and embrace diversity?
* What are traits of a good citizen?
* How can we exhibit good citizenship?
* What are leaders' roles in the community and why are they important?
* What is a democracy and how does it affect my role as a citizen in my community?
* Why do we need and utilize rules in various settings?
* Who enforces rules and promotes fairness within our community?
* What are responsible and irresponsible actions?
* What are consequences of responsible and irresponsible actions?
* How can we demonstrate responsible and irresponsible actions?
* How does being a responsible citizen help us in our daily lives?
* How does embracing diversity enable us to understand people around the world?

From Swansboro Elementary: First Grade: “The More We Get Together” Unit (Soc. Studies)

* What makes a community a community?
* What makes a family a family?
* What is my role in my classroom/family/community?
* Why do families needs rules?
* Could rules be different within communities?  How are rules different among other countries?
* How are the families in our classroom alike and different?
* In occupations, why are jobs divided in small parts and assigned to specific people?
* Who are community workers in our neighborhoods?  What services do these people provide?
* What is the similarities/differences of your community with another?
* Why do we need rules in our classroom/community?
* What is a consequence?
* Why do we need to celebrate and learn about people we have never met?
* Why do we study fire safety?  Why is this important?
* What are similarities and differences between Drug Awareness and Fire Safety?

From Hunters Creek Elementary: First Grade: “Nature In Balance” (Science)

1. How do changes in the environment effect plant/animal survival?
2. What are the essential needs of plants/animals?
3. Are all plant/animal needs equally essential for survival?
4. How do local environments support the needs of common NC plants and animals?
5. What plants and animals do we find in the **pond** habitat? (**ocean, mountains, forests, wetlands**)
6. Do people, plants, and animals have any of the same needs?
7. How do the needs of plants and animals change with the weather and the seasons?
8. How does the movement of one object change the position or balance of another object?

From Hunters Creek Elementary: Fourth Grade: “Be A Rock Star” Unit (Science)

* How does the study of rocks give clues about the composition of the earth?
* How does weathering and erosion affect the Earth’s surface?
* What patterns do different types of minerals have?
* How does the rock cycle explain that one kind of rock can turn into another?
* What are the major causes of erosion?
* How do the patterns of weathering, erosion and deposition affect the rock cycle?
* How does the cyclic changes of the physical land impact the people of NC - past and present?
* What natural resources of NC are found in the different regions?
* Did the natural resources and physical environment determine where the different ethnic groups settled?

From Meadow View Elementary: Fourth Grade: “North Carolina Communities” Unit (Soc. Studies)

* How do you explain the exploration and early settlement of NC?
* How did early American Indians help NC settlers establish and improve communities?
* What challenges did early European colonists face while settling in the Coastal Plains of NC?  Piedmont? Mountains?
* What role did NC’s people play in the American Revolution?
* How have different ethnic groups helped NC communities grow and develop?
* How do similarities and differences among North Carolinians affect NC’s culture?
* How have different ethnic groups influenced culture, customs, and the history of NC?

From Summersill Elementary: Fourth Grade: “Animals on the Run” Unit (Science and Soc. Studies)

Science:

* What are the basic needs of animals?
* How do animals' behaviors help them meet their needs?
* How does an animal's behavior help it to survive in various habitats?
* How does an animal's body help it adapt to its environment?

Social Studies:

* How does the physical environment determine where people live?
* How do people interact with each other within their environment?
* What are the benefits of the natural resources in the different regions of North Carolina?

***Middle School Examples of Essential Questions***

Jacksonville Commons Middle School: 7th Grade Science: Who Wants a Pizza “Pi”?

1. In what careers is an understanding of Pi essential?; When do you use Pi?
2. How is Pi essential to volume? How is Pi essential to surface area?
3. How does Pi affect our everyday lives?;

Jacksonville Commons Middle School: 7th Grade Science: Change-Cross Curricular

1. What criteria must be met in order to implement change?
2. Should change occur just for the sake of change?  Explain.
3. When is change necessary?  When is it not?

New Bridge Middle: 7th Grade Science: Scientific Inquiry

1. What are scientific methods?
2. What is descriptive research?
3. What is the experimental research design?
4. How do you set up an experiment using scientific methods?
5. Why is measurement important?

Trexler Middle: 7th Grade Science: Atmosphere/Weather

1. What are the characteristics of weather?
2. What are the financial and economic trade-offs affecting air quality?
3. How is weather predictable and how can technology help to better predict weather conditions?
4. How do humans impact the atmosphere and natural resources?
5. Why is it necessary to study, collect data, and communicate information about the atmosphere?
6. How do global weather patterns affect our local weather?

***High School Examples of Essential Questions:***

Swansboro High School: Biology: Interrelationships in Biology

* What are the relationships between an organism and its environment?
* What are the components of an ecosystem and how they can be studied?
* How do humans and the environment influence each other?

White Oak High School: Biology: Molecular and Medelian Genetics

* How do genes interact to produce the expression of traits?
* How are Punnett squares and pedigrees used to make predictions about inheritance?
* What impact has genomics had on individuals and society?

Northside High School: Biology: Scientific Methods

* What is the scientific method and why is it useful?
* How is the scientific method used and how has it influenced science?
* What are the potential uses and hazards of laboratory equipment?
* How can I represent my data so that it is useful to others?