

## Using Creativity to Answer Scientific Questions Benchmarks

## Big Idea 1: The Practice of Science

- SC.6.N.1.5 Recognize that science involves creativity, not just in designing experiments, but also in creating explanations that fit evidence.
- SC.7.N.1.5 Describe the methods used in the pursuit of a scientific explanation as seen in different fields of science such as biology, geology, and physics.
- SC.8.N.1.5 Analyze the methods used to develop a scientific explanation as seen in different fields of science.
- SC.912.N.1.7 Recognize the role of creativity in constructing scientific questions, methods and explanations.



## Using Creativity to Answer Scientific Questions Vocabulary Sheet

- **Bloom:** In this case, refers to a rapid increase in the population of photosynthetic organisms (including algae, cyanobacteria, and others) in an aquatic system. Blooms may occur in freshwater as well as marine environments. Following a bloom, oxygen in the water may become too low for larger organisms- like fish, crabs, and snails- to survive.
- Coring tube: A simple scientific instrument used to collect a cylinder-shaped sample of sediment (*see definition below*) in a way that keeps the layers of sediment from mixing, allowing scientists to measure many different things from one sample.
- **Cyanobacteria:** A type of bacterium that can make its own food through photosynthesis. They are generally blue-green in color and found all over the world. In estuaries, like the Indian River Lagoon, they can sometimes grow in number very rapidly. This is called a bloom (*see definition above*).
- **Quadrat:** A simple scientific tool used for estimating population abundance in a habitat. Usually shaped in a square or rectangle.
- **Sediment:** In this case, the material that settles to the bottom of a liquid (e.g. the Indian River Lagoon). Sediment may be many things, including dirt, sand, shells, and bones.



## Using Creativity to Answer Scientific Questions Guiding Questions

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1.	At the beginning of the video, what did the narrator think about scientists?
2.	What experience changed her mind?
3.	Give at least two examples of how the narrator used creativity for her research project.