

Globe at Night addresses the following US Educational Standards:

Source: <https://www.globeatnight.org/education-standards.php>

Learning Objectives:

Students will be able to

- Use latitude and longitude coordinates to report their location given access to the web app or a GPS
- Identify and locate different constellations based off of our stellar maps.
- Determine the magnitude of the faintest visible star in a constellation using the provided stellar maps
- Compare personal observations (data) with other observations inside the classroom or from around other parts of the world given access to previous years mapped data.

Next Generation Science Standards:

4th Grade:

- Earth and Human Activity (4-ESS3-1)
- Waves and Their Applications (4-PS4-2)

5th Grade:

- Earth's Place in the Universe (5-ESS1-1, 2)
- Earth and Human Activity (5-ESS3-1)

Middle School:

- Earth and Human Activity (MS-ESS3-3, 4)

High School:

- Earth and Human Activity (HS-ESS3-3, 4)

National Science Education Standards Earth and Space Standards

- K-4: Objects in the sky

Science in Personal and Social Perspectives

- K-4: Changes in environment
- 5-8: Populations, resources, and environments; Science and technology in society
- 9-12: Environmental quality; Science and technology in local, national, and global challenges

Geography for Life: The National Geography Standards

Essential Element 1: The World in Spatial Terms

- How to use maps and other geographic representations, tools, and technologies to acquire, process, and report information.
- How to analyze the spatial organization of people, places, and environments on Earth's surface.

Essential Element 5: Environment and Society

- How human actions modify the physical environment.

Mathematical Standards

Numbers and Operations

Understand numbers, ways of representing numbers, relationships among numbers, and number systems

- Pre-K-2: Count with understanding and recognize “how many” in sets of objects;
Understand and represent commonly used fractions, such as $\frac{1}{4}$, $\frac{1}{3}$, and $\frac{1}{2}$
- 3-5: Develop understanding of fractions as parts of unit wholes, as parts of a collection, as locations on number lines, and as divisions of whole numbers

- 6-8: Work flexibly with fractions, decimals, and percents to solve problems

Geometry

Use visualization, spatial reasoning, and geometric modeling to solve problems

- Pre-K-2: Recognize geometric shapes and structures in the environment and specify their location
- 3-5: Recognize geometric ideas and relationships and apply them to other disciplines and to problems that arise in the classroom of everyday life
- 6-8: Recognize and apply geometric ideas and relationships in areas outside of the mathematics classroom, such as art, science, and everyday life.