



Light & Shadow

Total Unit Running Time: 25-35* minutes

NGSS Addressed: 5-PS2-1, 5-ESS1-1, 5-ESS1-2

FIELD TRIP: **Cape Hatteras Lighthouse**



Running Time: 6:57

NGSS: 5-ESS1-2

Take a seat on the lawn at the Cape Hatteras Lighthouse while VictoryVR Host, Steve Grubbs, reveals a bit of history about this iconic landmark. While learning about the Bortle Scale, the causes of shadows, and the history and purpose of lighthouses in general, you'll be amazed at the beauty and scale of this renowned coastal feature.

For more information, please visit nps.gov/caha/planyourvisit/chls.htm

INTERACTIVE EXPERIENCE: **Word Search**



Running Time: Self-paced*

Based on a traditional word search, students stand in a 360* cylinder with letters spanning the floor to the ceiling. Hidden within the mass of letters are terms from the lessons they experience in this unit. By staring at the first letter of a vocabulary word, students start a yellow line that runs across a word as they move their head. Once students get to the last letter, they pause and allow the word to be fully highlighted and checked off the list.

VIRTUAL COMIC BOOK: **Brought Together by the Stars**



Running Time: Self-paced*

NGSS: 5-PS2-1

Topics Covered

- Biographies of Tycho Brahe & Johannes Kepler, and their influences/impact
- Concept of gravitational pull, great comets

Assessment Answer Key & Critical Thinking Skills

1. A (BT2--comprehension)
2. B (BT3--application)
3. B (BT1--knowledge)
4. A (BT4--analysis)
5. D (BT3--application)

THEATER: **Sun, Stars, & Earth**



Running Time: 7:18

NGSS: 5-ESS1-2

Topics Covered

- Daily changes in length & direction of shadows
- Seasonal appearance of stars

Assessment Answer Key & Critical Thinking Skills

1. D (BT1--knowledge)
2. C (BT1--knowledge)
3. A (BT4--analysis)
4. B (BT6--evaluation)
5. D (BT3--application)

TEACHER DEMO: **Stargazing With Wendy**



Running Time: 4:22

NGSS: 5-ESS1-1, 5-ESS1-2

Topics Covered

- Visibility of stars based on location and season
- Characteristics of the sun and constellations

Assessment Answer Key & Critical Thinking Skills

1. D (BT1--knowledge)
2. C (BT3--application)
3. C (BT4--analysis)
4. D (BT2--comprehension)
5. B (BT1--knowledge)