



## Science Standards for District of Columbia, Maryland, and Virginia

### District of Columbia Public Schools

*"Tonight's Sky" (3<sup>rd</sup> – 6<sup>th</sup> grade)/ "Robotics"*

#### Earth Science

- 3.3.1 Observe and describe the apparent motion of the sun over a time span of one day
- 3.3.2 Demonstrate how the Earth rotates on its axis every 24 hours, producing the night-and-day cycle
- 5.3.3 Demonstrate how the Earth orbits the sun in a year's time, and Earth rotates on its axis about once every 24 hours
- 5.3.4 Explain that the alternation between day and night and the apparent movement of the sun, moon, and stars across the sky depend on the rotation of the Earth on its axis
- 6.3.8 Recognize and describe the sun as a midsize star located near the edge of a disk-shaped galaxy of stars called the Milky Way. Recognize that the universe contains many billions of galaxies, and each galaxy contains many billions of stars.
- 6.1.10 Interpret a map – a Star Map

#### Science and Technology

- 4.2.3 Describe how human beings have made tools and machines, such as satellites to observe and do things that they could not otherwise sense or do at all, or as quickly or efficiently.
- 4.1.1 Recognize and describe how results of similar scientific investigations may turn out differently due to inconsistencies in methods, materials, or observations, or the limitations of the tools used.
- 5.2.2 Give examples of advances in technology that have positively and/or negatively affected society  
Explain that technology is essential to science for such purposes as measurement, data collection, graphing and storage, computation, communication and assessment of information, and access to outer space and other remote locations.

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### Montgomery County Public Schools – MD Voluntary State Curriculum

*"The Navajo Sky" (4<sup>th</sup> grade)*

#### Science: Astronomy

- D1. Identify and describe the variety of objects in the universe...from reliable sources.
- D1b. Identify the sun as Earth's closest star.
- D1e. Recognize that the pattern of stars in the sky stays the same although their locations in the sky appear to change with the seasons.

#### Social Studies: 2. People of the Nation and World

- A1c. Examine and describe the unique and diverse cultures of early Native American societies.

*"Tonight's Sky" (5<sup>th</sup> grade)*

#### Science: Astronomy

- D2. Recognize and describe the causes of the repeating patterns of celestial events.
- D2a. Describe the rotation of the planet Earth on its axis.
- D2b. Recognize and describe that the rotation of planet Earth produces observable effects: the day and night cycle, and the apparent movement of the...stars.

- D2c. Describe the revolution of the planet Earth around the sun. Recognize and describe that the revolution of the planet Earth produces effects: the observable patterns of stars in the sky stay the same although different stars can be seen in different seasons, and length of year.
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## Fairfax County Public Schools – Standards of Learning/Program of Studies

### *"Tonight's Sky" and "Robotics" (4<sup>th</sup> – 6<sup>th</sup> grade)*

#### **Earth Patterns, Cycles and Change**

- 4.7 The student will investigate and understand the relationships among the Earth, moon and sun.  
Key concepts include
- 4.7a the motions of the Earth, moon and sun (revolution and rotation);
  - 4.7b the causes for the Earth's seasons and phases of the moon
  - 4.7c the relative size, position, age and makeup of the Earth, moon and sun; and historical contributions in understanding the Earth-moon-sun system.

#### **Stars and Constellations**

- 5 Use a starmap, locate and identify polar and seasonal constellations

#### **Interrelationships in Earth/Space Systems**

- 6.8 The student will investigate and understand the organization of the solar system and the relationships among the various bodies that comprise it. Key concepts include
- 6.8a the sun, moon, Earth...
  - 6.8d revolution and rotation
  - 6.8g the history and technology of space exploration

### *"The Navajo Sky" (2<sup>nd</sup> grade)*

#### **Civics**

- 2.12 the student will understand the U.S. is a land of people who have diverse ethnic origins, customs, and traditions, who make contributions to their communities, and who are united as Americans by common principles.

#### **Geography**

- 2.4d describe how people in these regions adapt to their environment
- 2.6 demonstrate map skills by...compass rose

#### **Language Arts**

Oral Language: participate in dramatic interpretations of literature

#### **Science**

Introduction to Planetarium objectives that begin in 4<sup>th</sup> grade

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