

Scope and Sequence

Space Exploration Robotics

Subject: Science Grade: 6 Designer: John Hayward

Week 1

The scientific method is employed in all investigations of science, therefore...

TEK Sci.6.2.A,B,C&D, 3.A&D, 4.A

- TLW understand each of the steps of the Scientific Method.
<http://dln.nasa.gov/dln/content/catalog/details/?cid=587>
[http://www.nasa.gov/audience/foreducators/topnav/materials/listbytype/Following the Scientific Method.html](http://www.nasa.gov/audience/foreducators/topnav/materials/listbytype/Following%20the%20Scientific%20Method.html)
<http://dln.nasa.gov/dln/content/catalog/details/?cid=53>
<http://quest.nasa.gov/projects/flies/sciMethod.html>

Week 2

Creating models of the real world can assist students with solving smaller problems and help them to understand their environment. Sometimes they may even gain a better understanding of how systems work by looking at the individual parts.

TEK Sci.6.3.C

- TLW understand and represent the natural world using models and identify their limitations.
<http://education.jsc.nasa.gov/explorers/p6.html>
<http://education.jsc.nasa.gov/explorers/p7.html>

Week 3

TEK Sci.6.A,&B

- TLW identify and describe the changes in position, direction of motion.
<http://dln.nasa.gov/dln/content/catalog/details/?cid=507>
<http://dln.nasa.gov/dln/content/catalog/details/?cid=571>

Week 4

Students know that obtaining, transforming, and distributing energy affects the environment. They will investigate the obtaining, transforming, and using that energy in

a manner that would be appropriate in space. They will also identify objects in our solar system.

TEK Sci.9.A,B,&C, 13.A

- TLW identify and describe energy types from their source to their use. They will also identify characteristics of objects in our solar system.
<http://dln.nasa.gov/dln/content/catalog/details/?cid=554>

Week5

Identifying the materials needed for a flight into space is essential prior to the flight. We must identify the location of our mission, additionally discovery of all materials and preparation is needed to ensure mission success.

TEK Sci.6.13.A&B

- TLW describe types of equipment and transportation needed for space exploration. They will also again identify the objects in our solar system to include the moon, meteorites, comets, and asteroids.
http://www.nasa.gov/audience/foreducators/stseducation/stories/Mary_Jane_Anderson_Profile.html
<http://dln.nasa.gov/dln/content/catalog/details/?cid=320>

Week6

TEK Sci.6.2.D, 3.C, 6.A,B, 9.A,B,&C, 13.A,&B

- TLW use all previously covered material in this lesson and apply it to the use of a robot. Additionally the student's extension will be to prepare their robot in connection with this lesson.

<http://dln.nasa.gov/dln/content/catalog/details/?cid=293>