

**Solar System & Beyond**

**Lesson:** D1-1 How the Earth and Moon Compare  
**Author:** Mr. Hilvers  
**Endorsed:** St. Lawrence School  
**Level:** Grade 5

**\*\*Correct Homework, if any\*\***

**Teaching Procedure**

Day 1: Lab (see below) Day 2:

Day 2: Read/discuss p. D6-7.

Day 3: Read/discuss p. D8-9. [http://nssdc.gsfc.nasa.gov/planetary/ice/ice\\_moon.html](http://nssdc.gsfc.nasa.gov/planetary/ice/ice_moon.html)

Day 4: Quiz. Read/discuss p. D10-11.

**Lesson Objective**

Recognize the similarities and differences of Earth and the moon.  
Describe lunar and solar eclipses.

**Homework Assignment**

Day 2: Worksheet WB227

**Lab**

Objective: Learn how objects dropped from greater heights produce larger, deeper craters.

Make moon craters p. D4-5, Worksheet WB223.

Allow 30 minutes to make craters. Appoint 2 students to be measurer and dropper. Measurements of crater depth and diameter of splash will be taken. Craters should be deeper with a wider splash the higher the drop. Have all students record the measurements on worksheet.

Allow 15 minutes to discuss and clean up.

**Quiz**

Draw diagram of a lunar and solar eclipse.

**Lesson:** D1-2 How Earth, Moon and Sun move  
**Author:** Mr. Hilvers  
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**Level:** Grade 5

**\*\*Correct Homework, if any\*\***

**Lesson Objective**

Recognize the time-and-space differences of the Sun-Earth-Moon system.

Identify Earth's daily and seasonal cycles in relation to the Sun

Compare the objects in the solar system.

**Teaching Procedure**

Day 1: Read/discuss p. D12-13 Do Lab p. D12-13.

Day 2: Read/discuss p. D14-15.

Day 3: Read/discuss p. D16-17.

Day 4: Read/discuss p. D18-19. <http://comets.amsmeteors.org/educate/hbmovie.mpg>

**Lab**

Day 1: Do activity p. D12-13 outside or in old gym.

**Homework Assignment**

Day 2: Worksheet WB232

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**Lesson:** D1-3 Space Exploration  
**Author:** Mr. Hilvers  
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**Level:** Grade 5

### Lesson Objective

Identify telescopes, satellites and space probes as instruments scientists use to study the solar system.

### Teaching Procedure

Day 1: Introduction: Explore nasa.gov for images and video of Apollo 11 space mission.

Sputnik: <http://history.nasa.gov/sputnik/>

Kennedy Speech:

<http://www.jfklibrary.org/Historical+Resources/Archives/Reference+Desk/Speeches/JFK/003POF03NationalNeeds05251961.htm>

Project Apollo: [http://www.nasa.gov/mission\\_pages/apollo/index.html](http://www.nasa.gov/mission_pages/apollo/index.html)

Windows Media(TM)  
Movie

Day 3: Read/discuss p. D22-23. View video on space station:

Shuttle Video: [http://www.nasa.gov/multimedia/nasatv/on\\_demand\\_video.html?param=http://anon.nasa-global.edgesuite.net/anon.nasa-global/ccvideos/sts129\\_ascent\\_highlights.asx|http://anon.nasa-global.edgesuite.net/anon.nasa-global/ccvideos/sts129\\_ascent\\_highlights.asx|http://anon.nasa-global.edgesuite.net/anon.nasa-global/ccvideos/sts129\\_ascent\\_highlights.asx& id=215387& title=STS-129%20Ascent%20Highlights& timage=408849main\\_129\\_movthumb\\_100.jpg](http://www.nasa.gov/multimedia/nasatv/on_demand_video.html?param=http://anon.nasa-global.edgesuite.net/anon.nasa-global/ccvideos/sts129_ascent_highlights.asx|http://anon.nasa-global.edgesuite.net/anon.nasa-global/ccvideos/sts129_ascent_highlights.asx|http://anon.nasa-global.edgesuite.net/anon.nasa-global/ccvideos/sts129_ascent_highlights.asx& id=215387& title=STS-129%20Ascent%20Highlights& timage=408849main_129_movthumb_100.jpg)

[http://www.texasjim.com/NASApix/NASA\\_pix.htm](http://www.texasjim.com/NASApix/NASA_pix.htm)

Day 4: Read/discuss p. D 24-26. Do Review, p. D26 in class.

### Homework Assignment

Day 1: Worksheet WB238

Day 3: Chapter D1 Review and test preparation, p. D32-33, 1-26.

### Lab

Make a telescope: p. D20-21.

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### Student Evaluation



Microsoft Word  
Document

**Lesson:** Test  
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**Teaching Procedure**

Make Your Own Telescope activity, p. D20.