

EDUCATOR *GUIDE*

Materials List & Preparation

Unit Materials List

Quantity	Item
1 per youth	Science Notebook
2 per group of 3	Clear plastic cups
1 per group of 3	Permanent or wet-erase marker
1 per youth	Pencils
1 deck per group of 3	Planetary cards
1 roll for entire group	Tape
1 per group of 3	Calculators
1 cup for entire group	Table salt (any kind - 3 to 4 tablespoons per group of 3)
1 for entire group	Potato cut into slices (2 per group)
1 per group of 3	Tablespoon
1 per group of 3	Stirring spoon or stick



EDUCATOR *GUIDE*

Preparation for Entire Unit (1-2 hrs)

Read through the entire PLANETS Science Series educator guide to learn more about the science content in this unit. This is intended to help educators become familiar with science concepts related to how water was distributed in the formation of the solar system and thereafter. Educators can decide which concepts and vocabulary are most appropriate for their group.

Activity 1

1. Set-up a device with a projector and internet access, view and test video links:

- » Video on Water Availability, Accessibility, Usability
<https://planets-stem.org/water-in-extreme-environments>
- » Optional video on pH:
<https://www.youtube.com/watch?v=I18K2upEHLc>
- » Optional Salinity Video
<https://www.youtube.com/watch?v=jzTBR2APU-k>
- » Optional video on waste water treatment:
<https://www.youtube.com/watch?v=8isr9nSDCK4>
- » Video on Extremophiles
<https://www.youtube.com/watch?v=DVox3i1pcpQ>

2. Cut potato(es) into similar sized french fry style slices. Each group of 3 needs 2 slices.

3. Print one Science Notebook for each youth, in color if possible. These will be used in Activities 1-3.

Activity 2

1. Print one set of Planetary Cards, double-sided, in color if possible, for each group of 3. There are several sheets of cards (front and back) that form a deck. Cut the cards with a paper cutter to make individual stacks of 54 cards per deck. These will be used in Activities 2 and 3.

Optional: Consider laminating the self-printed cards or using page protectors to preserve materials for future use.

EDUCATOR *GUIDE*

2. Print out the four Water in the Solar System Chart (pp. 36-39).

Activity 3

There is no additional preparation for this Activity.

