



NASA Exploring Space Challenges

Today's students are tomorrow's explorers.

<http://esc.nasa.gov>

Mission: Moon Math Videoconference Event 1: Units Teacher Prep

Prior to this event, students will need to watch the Video 1 from the Moon Math webpage.

Order of Presentation:

1) Welcome and introductions

2) Icebreaker:

- a) Your presenter would like to ask some students, "Why do you want to do this project?" Please select a few students prior to the event and prepare them to answer this question.

3) Lesson – Measurement Tools and Units

- a) Students will need one sheet of paper, rulers, pencils and a few unopened reams of paper (original packaging) spread around the class. Calculators are optional. Math can be done by hand.
- b) Please assist the presenter in selecting students to answer questions if required, since it is sometimes difficult to see individual students through the camera.
- c) Presenter will ask students to give examples of good measurement tools.
- d) Presenter will ask students to determine the thickness of one sheet of paper. Can they measure the thickness of one sheet with just the ruler they have?
- e) Experiment: Pull out ream of paper (still in its packaging). "If I know that one whole ream of paper has 500 sheets, how can I calculate the thickness of just one?" Students will be given some time to figure it out on their own.
 - i) Solution: if paper ream is 5cm thick, then the ratio would be 5 cm to 500 sheets. 5 cm divided by 500 sheets = 0.01 cm per sheet.
 - ii) Aha! Factor: Making use of the tools you have to determine your measurement.

4) Upcoming notices

- a) Next videoconference will be in two weeks, so each team will need to:
 - i) Identify a project question
 - ii) Come up with a list of materials needed to do the project
- b) Students must log in to the website and complete the Brain Teaser and submit their letter of intent by October 21.