



## Toilet Paper Solar System - Scale Model

The distances between our planets are so vast they are almost incomprehensible. Visualize the expansiveness of our “cosmic neighborhood” with a roll of toilet paper!

### Time

- 5 minutes prep time
- 30 minutes class time

### Grade

- 3rd-8th

### Next Gen Science Standards

- 5-ESS1-1 Understanding relative distances through the solar systems scale
- MS- ESS1-3 Analyze and interpret data to determine scale of objects in the solar system

### Utah Core Science Standards

- 6.3 Students will understand the relationship and attributes of objects in the solar system.
- 6.3.1a Identify the planets in the solar system by name and relative location form the sun.
- 6.3.1c Use models that accurately depict the scale to compare sizes and distances between objects in the solar system.

## Materials

- ◇ A Toilet Paper Solar System Scale Model Instruction Sheet for teacher (use for grades 3-5) or Toilet Paper Solar System (grades 6-8) instruction sheet for teacher and student groups (use for grades 6-8)
- ◇ One role of toilet paper per student group
- ◇ Stickers for planets or felt tip marker to mark planets on toilet paper
- ◇ Clear tape to repair toilet paper tears
- ◇ For older kids you can have them perform their own conversions and complete the worksheet in the questions found in Toilet Paper Solar System (grades 6-8)

## Directions

- Follow A Toilet Paper Solar System Scale Model Instruction Sheet or Toilet Paper Solar System (grades 6-8) instruction sheet.

You may want to end your activity and discussion with these fun youtube videos:

For younger children -

Bill Nye Demonstrates Distance Between Planets <https://www.youtube.com/watch?v=97Ob0xR0Ut8>

For older students -

To Scale: The Solar System <https://www.youtube.com/watch?v=zR3Igc3Rhfg>