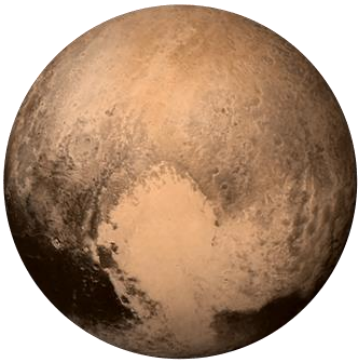
# Pluto: our favorite dwarf planet
# Grades K-5



In 2015, the New Horizons spacecraft flew by Pluto, giving us our first up close look at the dwarf planet at the edge of our solar system. In this lesson, we will explore the properties of Pluto, talk about why it's called a dwarf planet and not a regular planet, and learn more about other dwarf planets in the Solar System.

**Post lesson discussion questions**

1) How many planets are in the solar system?
2) What are the three properties an object must have to be considered a planet?
3) Explain why Pluto is a dwarf planet.
4) How does Pluto compare to other planets int eh solar system? Similarities? Differences?
5) Should we send another spacecraft to visit Pluto? What type of mission (orbiter, lander, flyby, etc.)?
6) If you could decide what to study about Pluto for the next mission, what features/properties of Pluto would you like to learn more about?

**Post lesson activities**

- Math activity showing the scale size of Pluto (4$^{th}$ grade and up): https://www.jpl.nasa.gov/edu/teach/activity/measuring-pluto/
- Various hands-on activities for all ages related to Pluto: http://pluto.jhuapl.edu/Learn/Activities.php#Educational-Materials
- Playdough scale model of the solar system: https://stereo.gsfc.nasa.gov/img/scales.pdf

**Other Resources**

NASA Space Place links to information about Pluto and other dwarf planets (great for young children):
https://spaceplace.nasa.gov/kuiper-belt/en/
https://spaceplace.nasa.gov/ice-dwarf/en/

New Horizons mission page:
https://www.nasa.gov/mission_pages/newhorizons/main/index.html

Another New Horizon's mission page:
https://solarsystem.nasa.gov/missions/new-horizons/in-depth/

Animations and images of Pluto from the New Horizons Mission:
http://newhorizons.jhuapl.edu/Galleries/Videos.php

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