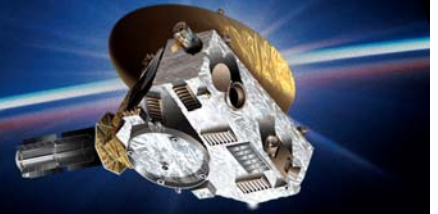


NEW HORIZONS

To Pluto and Beyond

<http://pluto.jhuapl.edu>



LAST YEAR ON PLUTO

Level

Grades 2 – 5

Learning Goals

Understanding the astronomical concept of a year.

Relating the passage of time on planets to historical events in the USA.

National Science Education Standards

Standard D: Objects in the Sky

National Council of Teachers of Mathematics Standards

Problem Solving: Solve problems that arise in mathematics and other contexts

Materials per student

Student Activity Sheet

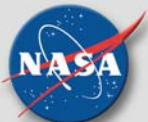
Pencil

Teacher Overview

1. Given two basic facts about the orbital speed and distance traveled by the planets, students will deduce the length of one year on all the planets in the Solar System.
2. Students will use the information about how long one year is on several outer planets to determine what happened in the USA one year ago (on that planet's calendar).

Answers

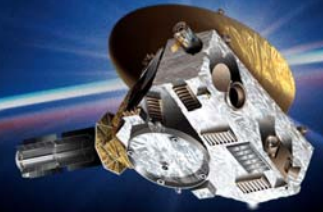
1 Mercury Year =	0.2 Earth Years	1 Jupiter Year =	12 Earth Years
1 Venus Year =	0.6 Earth Years	1 Saturn Year =	29 Earth Years
1 Earth Year =	1 Earth Year	1 Uranus Year =	84 Earth Years
1 Mars Year =	2 Earth Years	1 Neptune Year =	165 Earth Years
		1 Pluto Year =	247 Earth Years



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Matching Answers:

1. One year ago on Pluto...Colonial America was starting to be annoyed with English rule. The American Revolution would soon follow.
2. One year ago on Neptune...Americans head west to settle the frontier.
3. One year ago on Uranus...Women first earned the right to vote in the USA.
4. One year ago on Saturn...Viking spacecraft lands on Mars.
5. One year ago on Jupiter...The internet was starting to be widely used.

