

New Horizons Probe Launches on Pluto Mission

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CAPE CANAVERAL, Fla. — A piano-sized spacecraft blasted off Thursday on a 3-billion mile journey to study Pluto, the solar system's last unexplored planet, and examine a mysterious zone of icy objects at the outer edges of the planetary system.

The New Horizons probe lifted off from the Cape Canaveral Air Force Station at 2 p.m., quickly reaching speeds as it pushed away from Earth of 36,000 mph, nearly 100 times faster than a jetliner. The distance involved means scientists won't be able to receive data on Pluto until at least July 2015, the earliest the mission is expected to arrive.

The launch drew attention from opponents of nuclear power because the spacecraft is powered by 24 pounds of plutonium, whose natural radioactive decay will generate electricity for the probe's instruments. NASA and the Department of Energy had estimated the probability of a launch accident that could release plutonium at 1 in 350. As a precaution, the agencies brought in 16 mobile field teams that can detect radiation and 33 air samplers and monitors.

Pluto is the only planet discovered by a U.S. citizen, though some astronomers dispute Pluto's right to be called a planet. Some NASA safety managers had raised concerns about the rocket's fuel tank since a similar test tank failed a factory pressure evaluation. The decision was made to fly since the flight tank was in *pristine* condition and had no signs of any defects like the ones found on the test tank.

1. Approximately how many feet will the spacecraft travel to Pluto? Inches? Meters?
2. At the previously mentioned speed of the New Horizons probe, how long would it take to cover a 3000-mile trip across the United States?
3. Including leap years, how many hours older will you be when the probe reaches its final destination?
4. How many ounces of plutonium are required to power the spacecraft?
5. What is the probability that a plutonium related accident may occur?
6. What precautionary measures have been taken to prevent an accident?
7. In the passage above, in paragraph form, explain at least seven ways using the "**Reading Across The Curriculum**" poster simplifies understanding of the material. Be specific.
8. In paragraph form, list at least five ways using guidelines from the **Writing Guidelines** will make you a stronger and more convincing writer; specifically, on The Daughtry Times.
9. Using contextual clues only, explain the meaning of the italicized word *pristine* above.
10. Using contextual clues, explain the meaning of the italicized word *pristine* above.
11. In paragraph form, explain five legitimate and educational purposes behind The Daughtry Times.