


# Robot Space Explorers in Night Sky Museum - Activities (Ages 8-11)



## Today we are going to investigate:

- How to open Night Sky Museum
- The first satellite sent into space
- Robots in Space
- Landers and rovers

## Activities

- 1 Today we are going to investigate some important spacecraft. Start up Night Sky and find the Night Sky Museum  in the Menu. Tap on the icon to open the Museum. You will see an array of objects, instruments and vehicles used to investigate the Universe. By tapping on any exhibit you can find out more about it. You can use your finger to move the exhibit and by tapping on the blue bar you can view it in your classroom.

**Activity:** Tap on “Spacesuit Experience” and move the spacesuit in front of a partner. Watch them try the suit on!

- 2 Let’s explore some historic spacecraft that have explored our Solar System. Start by scrolling down to find Sputnik 1. In 1957 this was the first satellite humans put into space. Satellites are spacecraft that move in paths around the Earth called orbits.

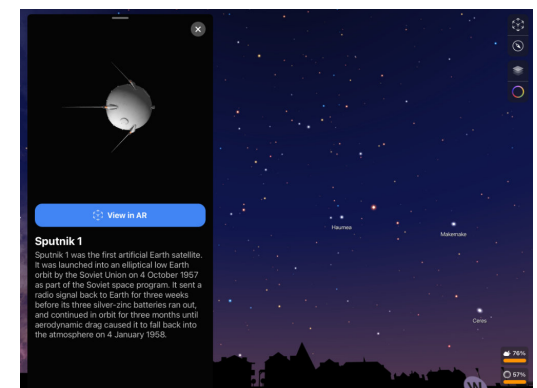
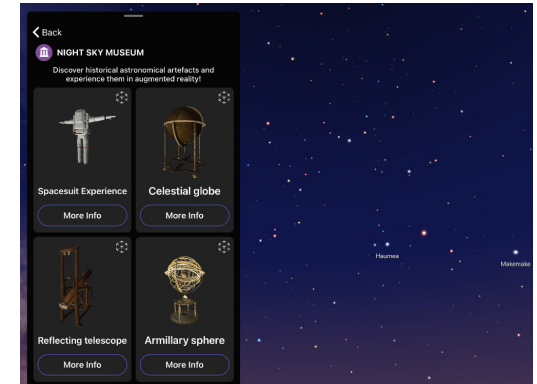
**Question:** How long did Sputnik 1 stay in orbit?

- a) About 3 days    b) About 30 years    c) About 3 months

- 3 Spacecraft sent into the Universe can discover things scientists didn’t know existed. Find Explorer 1 in the Museum. This was the third satellite ever launched and the first from the US. Its flight was very important as it made a surprise discovery. Explorer 1 found a structure in space that scientists hadn’t known was there.

**Question:** What did Explorer 1 discover?

- a) Van Allen Belt    b) Saturn’s Rings    c) Halley’s Comet



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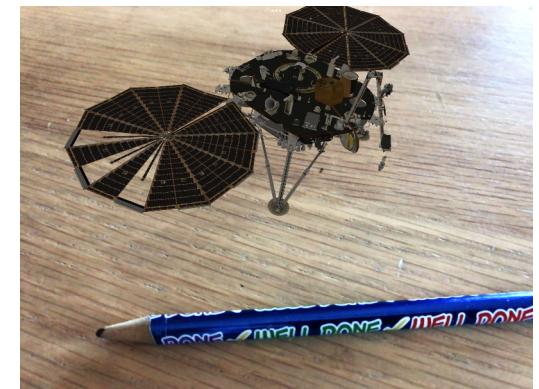
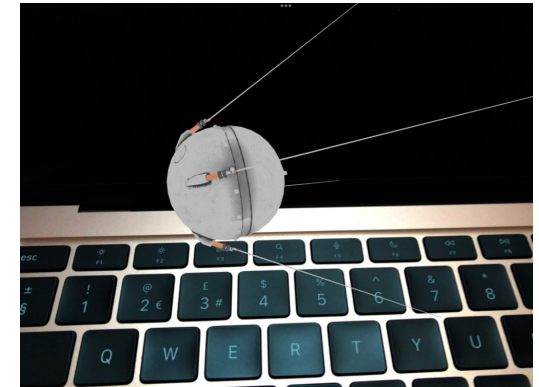
- 4 Some of these machines have landed on other worlds, some have even rolled across the surface of moons and planets. InSight landed on planet Mars and Lunokhod 1 landed on the Moon. Look at InSight and Lunokhod in the Museum and compare them. You will see they both have large solar panels to power them and antennas to communicate with Earth. You will see one big difference between the two machines!

**Questions:** One of these machines is referred to as a **lander**, the other as a **rover**. Which one of the two is the lander and which one is the rover? Which of the two could explore more of the world where it landed?

- 5 None of the space vehicles we have looked at today carried people on board. They are all basically robots. Robots do not need water, food or air while humans need all of these things to survive. A robotic spacecraft does not need to carry water, food or other supplies. At the end of its mission, a robotic spacecraft does not need to safely return to Earth. Astronauts go into space all the time and have even visited the Moon but so far all of the spacecraft that have gone furthest from Earth have been robots.

**Question:** Which one of these spacecraft in the Museum has gone furthest from Earth?

- a) Parker Solar Probe    b) Voyager 1    c) Juno



### What we have discovered:

- Robotic spacecraft do not carry people
- Satellites are spacecraft that orbit around the Earth
- Sputnik 1 was the first satellite sent into space
- Robotic spacecraft can land on or drive across the Moon and planets

Well done!  
You're a Night Sky  
Superstar!