

Current Missions

Follow your teacher's directions to find the information about some of the current NASA missions.



1. List the destination(s) for each mission:

Saturn and its system Cassini-Huygens

Mars Curiosity

Ceres and Vesta (dwarf planets) Dawn

Jupiter Juno

Earth's Moon Lunar Reconnaissance Orbiter

Farther than humans have ever gone before (Mars) Orion Spacecraft (end goal to where?)

2. From 1 – 8, place the launches in order with 1 being the first craft launched:

2 Cassini-Huygens October 15, 1997

7 Curiosity November 6, 2011

4 Dawn September 27, 2007

1 Hubble Space telescope April 24, 1990

3 International Space Station November 20, 1998

6 Juno August 5, 2011

5 Lunar Reconnaissance Orbiter June 18, 2009

8 Orion Spacecraft December 5, 2014

ISS 3. Which is orbiting closest to Earth, ISS or Hubble?

About 7 years 4. How long did it take Cassini to reach its destination?

About the size of a football field 5. About how big is the ISS?

5 days 6. How many days did it take the LRO to reach its destination?

Dawn 7. Which is the first mission to orbit two targets?

Juno 8. Which craft will reach its destination this summer?

3600 miles 9. What was the farthest distance from Earth that Orion traveled in its first flight?

Cassini – Huygens 10. Of the 8, which craft has traveled the farthest from Earth?

Huygens (landed on Titan, moon of Saturn) and Curiosity, 11. Of the 8 missions, which have landed on their destinations?

Curiosity 12. Which craft has two parts to it, a rover and a lander?

Curiosity 13. Which craft is looking for life?

About 16 14. How many years has ISS been occupied?

Yes 15. Is the Hubble Space telescope able to be repaired as it orbits Earth?

About 9 years 16. How many years will occur from Orion's first flight to its manned flight?

Orbiting dwarf planet Ceres 17. Where is Dawn now?

The moon 18. What is the LRO mapping?

6 19. How many crew members are currently on ISS?

Scott Kelly 20. Who is the commander of the crew on the ISS?

It broke the record to become humanity's most distant solar-powered probe 21. What significant achievement has Juno made already?

March 1, 2016 22. When will Scott Kelly return to Earth?

He surpassed the previous record holder for total number of days in space 23. Why is October 16, 2015 significant to Scott Kelly?

He surpassed the previous record holder for longest time spent in space on a single spaceflight.

24. Why is October 29, 2015 significant to Scott Kelly?

About 5 years 25. About how many years will Juno take to travel to Jupiter?

100,000 components for 9 different systems 26. Over the next 18 months, Orion will receive components for how many systems?

Now, go to the page for each mission on NASA's website and read through some of the information there. Write down 2-3 complete sentences on the latest information for that mission/spacecraft.

<https://www.nasa.gov/missions>

Cassini-Huygens

February 22, 2016 three of Saturn's moons – Tethys, Enceladus and Mimas – are captured in a group photo from the Cassini Spacecraft.

Curiosity

January 29, 2016 a self-portrait from Curiosity Mars rover show the car-size mobile laboratory beside a dark dune where it has been scooping and sieving samples of sand.

Dawn

January 29, 2016 – a colorful new animation shows a simulated flight over the surface of dwarf planet Ceres, based on images from the Dawn Spacecraft. The movie shows Ceres in enhanced color which helps to highlight subtle differences in the appearances of surface materials. Scientists believe areas with shades of blue contain younger, fresher material.

Hubble Space Telescope

February 19, 2016 – this is a picture of a young forming star known as HBC 1 surrounded by interstellar dust.

International Space Station

February 24, 2016 – One year crew mates Commander Scott Kelly and Flight Engineer Mikhail Kornienko will joining Soyuz Commander Sergey Volkov for a ride back to Earth Tuesday. Kelly will be bringing back blood, urine, and saliva sample collections to help doctors understand how living in space affects the human body.

Juno

February 3, 2016 – Juno successfully executed a maneuver around the sun to adjust its flight path. The maneuver refined the spacecraft's trajectory, helping set the stage for Juno's arrival at Jupiter in July.

Lunar Reconnaissance Orbiter

February 24, 2016 – Images from the LRO will be on display at the National Air and Space Museum in Washington, D. C. beginning February 26, 2016. The images reveal newly formed impact craters, recent volcanic activity, and a crust being fractured by shrinking of a still cooling interior.

Orion Spacecraft

February 2, 2016 – The Orion pressure vessel, or underlying structure of the crew module, was welded together between September 2015 and January 2016. It is being tested to make sure there are no leaks. It will fly thousands of miles beyond the moon on Exploration Mission 1. The pressure vessel provides a sealed environment to support astronauts and is the key for future human-rated modules.