



We Want Our Future!

Slide 1

The Saturn V, the largest launch vehicle ever made launches in the night sky on December 17th 1972. The rocket was 363 ft tall (longer than a football field) and 33 feet wide!

Slide 2

What is Exploration? Have you explored something, even something small?

- A trip to a new place?
- An adventure by yourself?
- A discovery that you showed your friends?

Who likes to explore? (show of hands)

Slide 3

Humans have been exploring since we took our collective first steps. We ARE explorers, it's the drive to find food, resources, and new places that has lead us to spread over all 7 continents of the planet. If humans had not been so driven, we would have few of the benefits of our modern society.

- This slide shows the paths that ancient humans took in exploring and settling the planet over the course of thousands of years.

Slide 4

Christopher Columbus began his exploration in 1492 crossing the Atlantic Ocean in wooden sailing ships.

During the time of Christopher Columbus the driving force behind exploration was trade. At this point no great landmass lay unclaimed by humans so exploration focused on discovering new places and trading with new peoples.

The crew that traveled with Columbus took great risks. The trip across the ocean was dangerous, but very rewarding.

Slide 5

In 1803 President Thomas Jefferson tasked Lewis and Clark to explore the American west. This monumental task took the duo and their team of explorers two years to travel to the Pacific Ocean and back to the American Colonies. Their efforts allowed for the settlement and development of North America from coast to coast.

This exploration was not easy, they needed help from the Native American's and faced great challenges on their trip.

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The greatest feat of exploration accomplished by man (so far!) occurred on July 20th 1969 when the first human set foot on the surface of the Moon. Does anyone know who the first person to walk on the Moon was? (Neil Armstrong). After Neil Armstrong and Buzz Aldrin traveled 250,000 miles and walked on the Moon, we returned only 5 more times.

A total of 12 people have walked on the surface of the Moon, all of them men. Does anyone think this is enough? Any of the girls studying in school today could possibly be the first female to walk on the Moon and look back at the Earth.

Slide 7

The Space Shuttle was the first large-scale reusable spacecraft, launched for the first time in 1981. The shuttle is flying its last mission this year (2010) and has flown 130 missions over the last 30 years.

Who in this room was alive in 1981?

Does anyone know the names of all five Space Shuttles? (Columbia, Challenger, Discovery, Atlantis, and Endeavour)

Slide 8

The International Space Station is at the forefront of current human space exploration. Astronauts live aboard year round and perform scientific research which benefits people around the world. Astronauts are up there right now! Flying around the Earth doing experiments and studying both space and the Earth. The astronauts aboard the ISS also give us information on the effects of long duration spaceflight.

The station was started in 1998 – was anyone alive in 1998?

The ISS weighs 450 tons (about 450 cars)

From end to end the ISS is as long as a football field!

Our friend Joe Tanner went to the Space Station to install one of the 4 solar panel arrays which provides electricity for the crew at the station

Slide 9

Have you ever wanted to go to space? Today you can buy tickets into space to experience microgravity and a view of the earth. Will you go in your lifetime? The first private spaceship went to space in 2004 – these things are happening in YOUR lifetime!

Slide 10

There is already a history of private space explorers. The first private space explorer went to space in 2001! Companies around the USA and the world are hard at work developing passenger spacecraft capable of taking average people into space!

In the future you may be able to go on a vacation to space just like people today go on cruises or vacations to the beach.

In your lifetime humans will be able to live and work in space, on the Moon, or other planets! It's up to you to make this happen!

Slide 11

This is a view from the Moon – of the Earth. Imagine what one of the crew of Columbus' ship would have said if you showed them this picture. They would have declared this IMPOSSIBLE. But we did it.

Humans have explored many places in our solar system, both with humans and robots.

Humans went to the Moon and with your help we can go back to the Moon and on to other destinations! Imagine being on the Moon with the Earth hanging in the blackness of space. Imagine everything you've ever known, every person you've ever met, could fit behind your thumb. The Earth is so small from the Moon you can fit it behind your THUMB.

Slide 12

This is a recent photo of the Moon taken by the Lunar Reconnaissance Orbiter and we can see of the landing sites, including the tracks of the astronauts, the lunar rover, and the lunar lander.

Slide 13

Where will we go next? To Mars? Or even further? It's up to you!

Slide 14

While we work on sending humans to other planets, robots are already there! We've sent multiple stationary landers and mobile rovers that have performed many valuable scientific studies. We have sent missions to EVERY planet in the solar system.

While studying them we have found:

- Water ice on the Moon and Mars
- Close up photos of interesting geological (rock) features which tell us about the past environment of planets

Upper left – Viking Lander, Bottom – Victoria Crater observed by Opportunity Rover, Middle – Spirit Landing, Right – Phoenix Lander

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But we're not just sending robots to Mars, right now a probe is orbiting Saturn and took these pictures. This one also had the Earth in the background. Look how small the Earth is – you can barely see it!

Slide 16

The farthest probe humans have ever sent into space, Voyager, has left the solar system and is on its way to another star! We received this image that shows the Earth as a tiny spec. Think about the endless possibilities of space – the Earth is just a tiny dot! The possibilities are truly endless!

Slide 17

What's next is entirely up to students today!

(read slide)

Slide 18

If you don't remember ANYTHING else from this presentation: NEVER forget to dream big, ask for help, and NEVER give up.

Your dreams should be considered impossible by others! Dream big and know that NOTHING is impossible.

What you do in the future is not going to be easy so ask for help – never be afraid to ask for help – Lewis and Clark needed help, Columbus needed help, and Neil Armstrong and Buzz Aldrin never could have made it to the Moon without help from THOUSANDS of people on Earth.

NEVER give up. If you watch a baby learning how to walk – they fall on their butt hundreds of times, but they get back up and keep trying. If you didn't give up when you were a baby why would you give up now?! Thomas Edison who invented the light bulb failed OVER 10,000 times – but he didn't give up. You only fail when you stop trying.

When something goes wrong learn from it! It's all training to prepare you for the future.

Slide 19

An iPhone is MUCH more powerful than the computer that landed humans on the Moon. Think about that – cell phones today have more computing power than the computer that landing humans on the Moon. With this new technology the possibilities are truly endless. What are YOU going to do with that power?!?

Slide 20

The future is what you make of it. Work hard, study hard, and you too may one day live and work in space!

This picture is of Astronaut Joe Tanner, an advisor of the WeWantOurFuture.org initiative.