📘 **FOR PARENTS/CARERS**

🚀 Space Explorers: History of Space Exploration

A single lesson, cross-curriculum Curiosity Pack for Year 6

📌 At a Glance

Topic: History of Space Exploration

Age Level: Year 6

Session Length: 45–60 minutes

Wonder Seekers will:

- explore important events in space exploration history
- investigate how space technology has changed over time
- examine how discoveries build on earlier discoveries
- organise information using timelines
- use mathematics to compare time intervals
- create a Space Exploration Timeline Project

🌍 Lesson Overview

This Curiosity Pack introduces Wonder Seekers to the history of space exploration and how humans have gradually learned more about the universe.

Learners investigate important events such as the first satellites, human spaceflight, Moon landings, space stations, and robotic missions. They explore how discoveries, inventions, and technological developments have helped scientists and engineers continue exploring space.

The lesson combines science, history, mathematics, literacy, design, and inquiry learning through observation, investigation, timeline construction, and project creation.

This learning experience supports:

- observation and questioning
- historical understanding
- chronology and sequencing
- mathematical thinking
- problem-solving
- visual communication
- creative expression

The lesson is designed using inclusive learning principles, supporting diverse learning needs through:

- self-paced learning

- visual supports
- flexible activity choices
- hands-on exploration
- multiple ways to show learning

⏱️ Session Length

Total learning time: 45–60 minutes

Wonder Seekers may:

✓ complete the lesson in one session

✓ pause and return later

✓ spend longer on favourite activities

✓ simplify or extend the task

🎯 Learning Focus

This Curiosity Pack explores:

- space exploration history
- important discoveries and missions
- technological change over time
- chronology and timelines
- mathematics and time intervals
- historical investigation

Learners will:

✓ investigate important events in space exploration

✓ identify key discoveries and missions

✓ sequence events in chronological order

✓ calculate time intervals between events

✓ organise ideas visually

✓ communicate discoveries through drawing, writing, discussion, or design

✓ create a Space Exploration Timeline Project

⭐ Success Looks Like

Success may look different for each Wonder Seeker.

Examples may include:

✓ explaining why inventors test inventions

✓ identifying ways an invention could be improved

✓ recording observations about a design

✓ creating a labelled invention diagram

✓ designing an invention that solves a problem

✓ describing how a design could be tested

✓ sharing discoveries in a way that works for them

Exploring, noticing, testing, and creating are all part of success.

🧰 Materials

You may want:

- paper or workbook
- pencils and coloured pencils
- ruler
- books or websites about space
- pictures of space missions
- timeline templates
- sticky notes or index cards
- scissors
- glue or tape

Optional:

- tablet or computer
- printer
- poster paper
- string for a physical timeline
- digital timeline tools

🔗 Suggested Learning Resources

🚀 NASA Kids' Club – Space Exploration

https://www.nasa.gov/kidsclub

Interactive games, facts, and activities about rockets, astronauts, planets, and space missions.

🌌 ESA Kids – European Space Agency for Kids

https://www.esa.int/kids

Child-friendly articles, videos, and activities about satellites, astronauts, and space technology.

📚 Britannica Kids – Space

https://kids.britannica.com

Reliable articles and images explaining space exploration, astronauts, satellites, and important discoveries.

🎥 SciShow Kids – Space Videos

🔒 **Online Safety Reminder**

When exploring online, remember:

👩‍🏫 Ask an adult first

🌐 Use trusted learning websites

🔐 Keep personal information private

⚠️ Tell an adult if something feels wrong

Stay curious and stay safe.

https://www.youtube.com/@SciShowKids

Short educational videos explaining rockets, gravity, stars, and space science.

🛰️ **Smithsonian National Air and Space Museum**

https://airandspace.si.edu

Information about rockets, astronauts, satellites, and the history of space exploration.

🗓️ **Canva Timeline Templates**

Search free timeline - Canva

Easy drag-and-drop timeline creator with templates. Learners can add dates, pictures, labels, and colours to show important space exploration events.

🧠 Universal Design for Learning Supports

This Curiosity Pack supports different ways of learning by providing flexible choices for engagement, learning, and expression.

Multiple ways to engage

Learners can:

- choose which space mission or event to investigate
- move between researching, drawing, organising, and creating
- take movement or sensory breaks during the lesson
- work independently or with support
- focus on events that interest them most
- compare past and present technologies

Multiple ways to learn

Learners can:

- read facts about space missions
- watch short videos
- explore photographs and diagrams
- compare historical events
- examine timelines and charts
- organise information visually
- discuss discoveries with others

Multiple ways to show learning

Learners can:

- draw and label events
- write notes or fact pages
- create a timeline poster
- build a timeline display
- explain discoveries verbally

- create a digital timeline
- make comparison charts

📘 FOR LEARNERS

🚀 Space Explorers: History of Space Exploration

🧭 Wonder Guide

Welcome Wonder Seeker!

Wonder Seekers explore the world by asking questions and noticing how things change over time.

Today, people can travel into space, send robots to distant planets, and use satellites to help people on Earth. These achievements did not happen all at once. They happened because scientists, engineers, astronauts, and inventors continued building on earlier discoveries.

The history of space exploration is a story of curiosity, problem-solving, and new ideas.

Space exploration has helped people:

🚀 travel beyond Earth

🌕 visit the Moon

🛰️ launch satellites

🤖 explore planets using robots

🔭 learn more about the universe

Historians and scientists learn about space exploration by studying missions, inventions, photographs, records, and discoveries.

Looking closely at important events can help Wonder Seekers understand how technology changes over time.

During this Wonder Journey, Wonder Seekers may:

🚀 explore famous missions

🛰️ investigate important discoveries

🗓️ organise events into a timeline

📊 compare dates and time intervals

🎨 create a Space Exploration Timeline Project

Ideas may be shown in many ways:

🖍️ drawing

📝 writing notes

📊 creating charts

🗓️ building timelines

💻 creating digitally

🗣️ explaining ideas aloud

Activities may be completed in order or Wonder Seekers may begin with the part that feels most interesting.

Taking breaks, noticing patterns, organising information, and making discoveries are all part of the Wonder Journey.

🔎 Wonder Investigation

Wonder Seekers sometimes notice that space exploration has changed greatly over time.

The first attempts to explore space were very different from modern missions. Early rockets were small and simple. Today, people use powerful rockets, space stations, robotic explorers, and advanced technology to investigate the universe.

Each discovery helped make future discoveries possible.

Important events may include:

🛰️ Sputnik launched (1957)

🧑‍🚀 First human in space (1961)

🌕 Apollo 11 Moon landing (1969)

🏗️ International Space Station development

🤖 Mars rover missions

🚀 modern space exploration programs

Each event helped solve a problem or answer a question about space.

Space exploration history can be explored in many ways.

👀 Some Wonder Seekers investigate by:

- looking at photographs of missions
- reading short mission summaries
- watching videos about famous space events
- comparing older and newer technology
- discussing why discoveries were important
- examining timelines

🔍 Wonder Seekers may investigate:

- What happened?
- When did it happen?
- Who was involved?
- Why was it important?
- What technology was used?
- What discoveries were made?
- How did it help future missions?

🖍️ When Wonder Seekers investigate, they sometimes keep track of what they discover.

Ideas may be recorded by:

- writing dates and events
- drawing mission symbols
- making fact cards
- creating comparison charts
- writing short explanations
- recording interesting discoveries

📊 Some Wonder Seekers organise discoveries using mathematics.

A timeline helps show:

- the order of events
- how many years passed between discoveries
- patterns in technological development
- how exploration changed over time

Wonder Seekers may:

- place events in chronological order
- calculate years between events
- compare time gaps between discoveries
- create a scaled timeline using a ruler

For example:

1969 → Moon landing

2020 → Mars rover mission

How many years passed between these events?

Looking closely at timelines can help Wonder Seekers understand how discoveries build on one another.

Wonder Seekers now bring their discoveries together.

Historians, scientists, engineers, and researchers often use timelines, diagrams, displays, and visual representations to communicate information.

In this activity, Wonder Seekers create something that shows what they discovered about the history of space exploration.

Wonder Seekers may begin by choosing 5–10 important events from their investigation.

Some Wonder Seekers choose to focus on:

🚀 rocket development

🧑‍🚀 human spaceflight

🌕 Moon exploration

🤖 robotic exploration

🛰️ satellites and technology

Or Wonder Seekers can choose other events that interest them.

🗓️ Before creating, Wonder Seekers may think about:

- Which events were most important?
- Which discoveries changed space exploration?
- Which events belong on the timeline?
- How much time passed between events?
- What patterns can be noticed?

You may create:

🗓️ a timeline poster

📄 a fact page

🎨 a visual display

📊 a timeline chart

💻 a digital timeline

📖 a mini booklet

You may include:

🚀 mission names

🗓️ dates

⭐ important discoveries

📝 short descriptions

🎨 drawings or symbols

📊 time intervals

🔍 explanations of why events mattered

As you create, you may notice new patterns and connections. Adding new discoveries, improving organisation, and refining ideas are all part of the learning process.

There is no single correct way to create.

Different Wonder Seekers may choose different ways to share their discoveries.

💭 Reflection

How did this Curiosity Pack feel?

😃 Loved it

🙂 Interesting

😐 Okay

😟 Challenging

Wonder Seekers may think about:

- Which event was most interesting?
- Which discovery changed space exploration the most?
- What surprised you?
- What would you like to learn more about?

You may reflect by:

- talking
- drawing
- writing
- building
- recording a short explanation