

Year 5 Autumn 1: What Makes Up Our Galaxy?

As Speakers we can:

- Discuss possible life on the Moon/ differences and similarities to Earth as well as other planets
- Present the planet profile to the class
- Discuss our findings from our moon watching and what we have discovered

As Writers we can:

- Create planet profile of one of the planets in the solar system and make notes from other profiles listened to
- Write about if you were to live on Mars, what would you be able to do?
- Write a biography about Katherine Johnson

As Readers we can . . .

- Read articles about modern space travel and missions
- Read about the life of Katherine Johnson and the impact she had on the Space Race

Focused Class Texts:

- Little Leaders by Vashti Harrison
- The Extraordinary Life of Katherine Johnson by Devika Jina
- Hidden Figures by Margot Lee Shetterly

Suggested texts for home reading:

- Cosmic by Frank CB
- The Jamie Drake Equation by Christopher Edge
- Counting on Katherine by Helaine Becker

As Mathematicians we can:

- Use our knowledge of negative numbers to understand the differences in temperature on the surface of the Moon
- Compare the size of the Moon to Earth
- Begin to appreciate the density of the Moon in comparison to the Earth's
- Distance between Earth and the moon and the Moon to the Sun.

As responsible citizens we can...

- Learn how to take care of our planet and our solar system. Understand that we only have one planet, that we have not yet discovered another habitable one.
- Will humans ever send humans to Earth? Discuss and decide what equipment would be needed and explain why.
- Mission to Mars adventure- children to write as if they have been chosen for the mission/ their journey there and experiences.

In R.E we can:

- Appreciate God's creation of our Earth and Solar System
- Understand and relate how God made day and night and how it works scientifically

As Scientists we can:

- Research facts about the Moon – is it a hospitable planet why/ why not? How do we know-what evidence is their?
- Discover the recent historical background of sending people to the Moon
- Understand that the planets, moon and sun are approximately spherical objects
- Understand the names of the planets and research them
- Know of the different phases of the moon and why the moon appears to change in the sky

Investigative skills:

- Investigate how far the planets are from one another
- How do the phases of the moon change (moon tracking diary)?
- What are the features of the planets? Why?

Key questions:

- What is the Sun?
- What is the solar system?
- How is the Earth related to the Sun?
- What is a moon?
- How is the moon related to the Earth?
- Why does the Moon change shape?
- What are the features of each planet, what makes them unique?
- What impact did Katherine Johnson and her team had on the Space Race during the 1960s?

As Historians/Geographers, we can:

- Where is NASA and what is it?
- Geography of the surface of the Moon- dried up riverbeds and mountains etc.
- Look at the history of space travel- first man on the moon, where did he come from?
- Where the Space Race was taken place, why was it in the perfect location to launch a rocket?

As Artists and Designers, we can:

- Design a planet profile
- Create piece art of the solar system based on the art work of Peter Thorpe

Learning beyond the classroom:

- Keeping a moon tracking diary to understand the phases of the moon
- Creating a solar system at home which can be a painting, drawing, 3D model or anything else that is creative

Using Technology, we can:

- Look at 3D models of Space to understand the difference between the heliocentric and geocentric views
- Research about planets to understand their key features and what makes them unique
- Create a podcast about the phases of the moon

As sporting enthusiasts, we can:

- Create a line to understand the difference between the planets in our Solar System
- Bouncing balls in a circle around the "Sun" to understand how many times each planet take to orbit earth

As musicians, we can:

- Solar System Song to help children remember the names of the planets through music (<https://www.youtube.com/watch?v=ZHAqT4hXnMw>)
- The Planets is British composer Gustav Holst. The seven-piece orchestral suite represents the planets at the time (<https://kristihillmusic.com/2018/02/28/how-to-pair-classical-music-and-solar-system-studies/>)

As home learners, we can:

- Research about the different planets
- Understand why there are different moon phases
- Watch educational videos to understand how the planets orbit the Earth and why
- Engage with interactive websites to understand the distance between planets
- Create video responses to questions
- Participate by using Google Docs or Google Slides to show our understanding of what has been taught