Scheme of Work - P3
On Earth and Beyond

Lesson 1:	Introduction & Discussion	Main Activity	Plenary/ Reflections
Objective: **3ESs.02** WALT describe the relative movement of the Earth and moon.	**Introduction:** *Outer Space Drawing* The teacher will ask students to draw three things that they think of when they hear the terms "outer space". The teacher will ask students to reveal answers. *Earth & Moon KWL* Students will complete a KWL worksheet about the moon and Earth and share responses. (K & W sections only). The teacher will direct students to the objective of today's lesson.	**Lesson Activities:** *Moon! Earths Best Friend - Read Aloud* The teacher will read the book *Moon! Earth's Best Friend* which will introduce students to the relationship between the Earth and the moon. *Motion of the Moon* Students will watch the video-Motion of the Moon which will explore the movement of the moon around the Earth. *Student Model/Drama:* Students will model with one another the movement of the moon & earth and sun. • One student will be the sun (flashlight) • One student will be the earth (globe) • One student will be the moon (cotton ball) Students will demonstrate the movement of each and switch roles. *Demo https://www.youtube.com/watch?v=CPzlAX5non4	**Lesson Closure:** *Exit Ticket:* Students will complete a journal entry explaining the movement of the Earth and the moon. Students will share their journal entries. *Lesson Recap* The teacher will recap the main points of the lesson. *Earth & Moon KWL* Students complete the L portion of the KWL worksheet to share what they learned from the lesson.

Lesson 2:	Introduction & Discussion	Main Activity	Plenary/ Reflections
Objective **3ESs.01** WALT describe the regular change in the position and appearance of the moon. **2Rs.01** Talk about the sequence of events or ideas in a text.*	**Introduction** *Phase Observation* The teacher will show students a picture of the phases of the moon. The teacher will ask students to write observations. Students will share observations. The teacher will discuss with students that the moon has different phases.	**Lesson Activities:** *The Moon Seems to Change* The teacher will read the book *Moon Seems to Change* which describes the changes of the phases of the moon. Teacher and students will discuss the information presented within the book. *Oreo Phases of the Moon* Students will use Oreo cookies and change the frosting to reflect the different phases of the moon.	**Lesson Closure:** *Lesson Recap* The teacher will review the phases of the moon with students. *Phases of the Moon* The teacher will provide students with three pictures of the phases of the moon. Students will label each phase given.

Lesson 3:	Introduction & Discussion	Main Activity	Plenary/ Reflections
Objective **3ESs.03** WALT describe the Earth, Sun and moon as spherical. **2Wc.04** Begin to write for a purpose using basic language and features appropriate for the text type.*	**Introduction** *Unit Review* 3-2-1 Students will complete the 3-2-1 formative assessment. ● 3 things learned ● 2 new words ● 1 question Students will share answers. *Compare/Contrast* Teacher will compare/contrast the moon, earth, and sun (key answer: all three are sphere shape.)	**Lesson Activities:** Use the task cards/slides to discuss why people use to believe the earth was flat https://www.olivehackney.com/wp-content/uploads/2020/06/Year-5-Science-Spherical-Bodies-Shape-of-the-Earth-Evidence-Cards.pdf *Astronaut Creative Writing* https://www.youtube.com/watch?v=AmrrSfiMxGA Students will complete an astronaut creative writing piece. Within the writing piece the following prompt/criteria will be given. Imagine you are an astronaut going to the moon. Include details on how you will get to the moon. Consider the following: ● Moon shape (spherical) ● Difficulty getting there, aiming for a moving target ● Temperature, physical characteristics of the moon etc. *Possible tie in with Katherine Johnson: Astronauts would not take off unless she had done the calculations	**Lesson Closure:** *Exit Ticket:* Students will share their creative writing stories with a partner. Students will share feedback about their partner's writing and provide suggestions and compliments.

Lesson 4:	Introduction & Discussion	Main Activity	Plenary/ Reflections
Objective **3Pf.02** WALT know that gravity on Earth is a force that pulls toward the center of the Earth. **2Wc.05** Include additional information to develop some ideas when writing non-fiction texts.*	**Introduction** *Astronaut Observation* Teacher will show students a picture of an astronaut in space. Teacher will ask students to discuss what is observed. Teacher will ask: ● Teacher will ask why does the astronaut appear to be floating? ● What is causing this? *Gravity Discussion* The teacher and students will define and discuss gravity and its impact on Earth.	**Lesson Activities:** Gravity https://www.youtube.com/watch?v=H9YMgx5T9Sk Students will watch the gravity video. *Astronaut Re-Creation* Students will draw a picture of themselves in space (floating around).. Students will then write what it is like in space without gravity. *Non Fiction Book* Students will write a nonfiction book. Within the book students will recap facts for the sun, Moon and Earth. Planet Challenge There will be an extra challenge available for students to research the other planets in the solar system to add to their non fiction book.	**Lesson Closure:** Share pictures and/or books with the class or read to younger students or share in an assembly.

Earth & Moon KWL

WHAT WE KNOW	WHAT WE WANT TO KNOW	WHAT WE LEARNED

Earth & Moon Journal

Dear Diary,

Today in science I learned that _____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

Name:_____

Moon Phases

mombrite.com

Waxing Gibbous

Waxing Crescent

First Quarter

Full Moon

New Moon

Third Quarter

Waning Gibbous

Waning Crescent

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Waxing Gibbous

First Quarter

Waxing Crescent

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New Moon

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Third Quarter

Waning Crescent

Phases of the Moon

Label the different phases of the moon shown below.

3-2-1 REFLECTION

Name: _____ Date: _____

Directions: Show what you know by filling in this reflection sheet!

3

THREE THINGS I LEARNED:

- _____
  _____
- _____
  _____
- _____
  _____

2

TWO NEW WORDS:

- _____ - _____
  _____
- _____ - _____
  _____

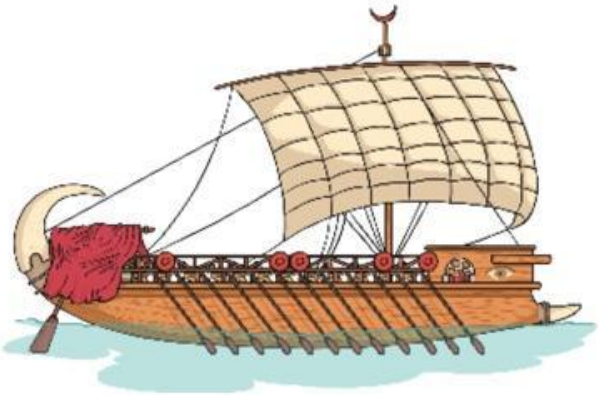
1

ONE QUESTION I STILL HAVE:

- _____
  _____

The early ancient Greeks, Sumerians, Babylonians, Egyptians and Vikings all believed that the Earth was a flat disc or plane surrounded by water. This was based on the evidence of what they saw around them.

Picture shows a Babylonian map of a flat Earth.



An ancient Greek writer, Herodotus, reported the findings of a group of explorers and traders called the Phoenicians. While travelling by boat around Africa, they found that the Sun was not above them but to their right. If the Earth is flat, then the Sun should always be above you.

Aristotle (384–322 BC) believed that the Earth was a sphere based on his observations of ships with tall masts moving across the horizon.

If the Earth were flat then the whole ship would get smaller as it moved further away. As it moved further, you would be able to see the whole of the ship getting smaller.

Aristotle observed that when ships sailed over the horizon the bottom part of a ship, the hull, actually disappeared from view. If it moved further the less of the ship you could see – this could only happen if the Earth was spherical.

Ships have circumnavigated (gone all the way around) the world. If the Earth were flat then they would have reached its edge eventually. The picture shows the journey around the world that Magellan and Elcano took between 1519 and 1522.

Planes regularly fly around the world and no one has ever reported finding the 'edge' of the Earth.

Photographs of the Earth have been taken in outer space. No matter where around the Earth the pictures have been taken, they always show a circular Earth. This can only be the case if the Earth is spherical.

DESCRIPTION WRITING Mars

fact 1

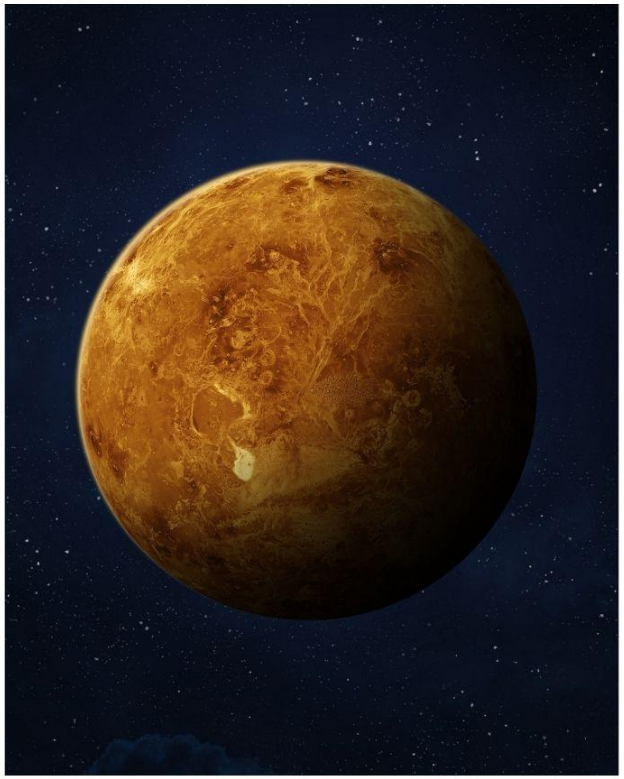
fact 2

fact 3

fact 4

fun fact

DESCRIPTION WRITING Venus



fact 1

fact 2

fact 3

fact 4

fun fact

DESCRIPTION WRITING Uranus

fact 1

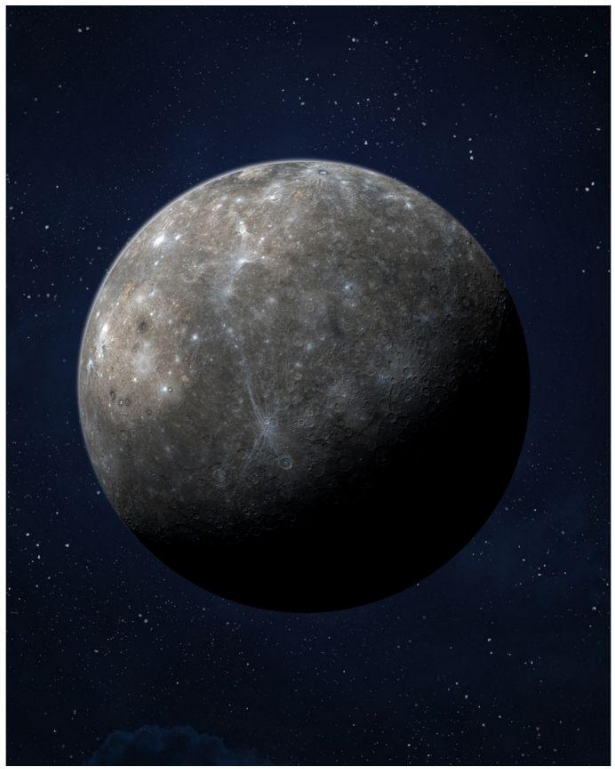
fact 2

fact 3

fact 4

fun fact

DESCRIPTION WRITING *Mercury*



fact 1

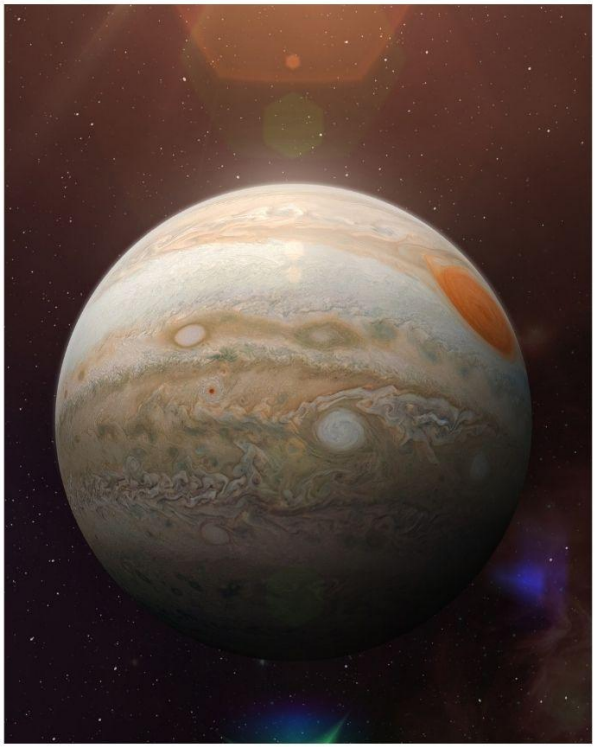
fact 2

fact 3

fact 4

fun fact

DESCRIPTION WRITING Jupiter



fun fact

fact 1

fact 2

fact 3

fact 4

DESCRIPTION WRITING *Earth*

fact 1

fact 2

fact 3

fact 4

fun fact

DESCRIPTION WRITING Saturn

fun fact

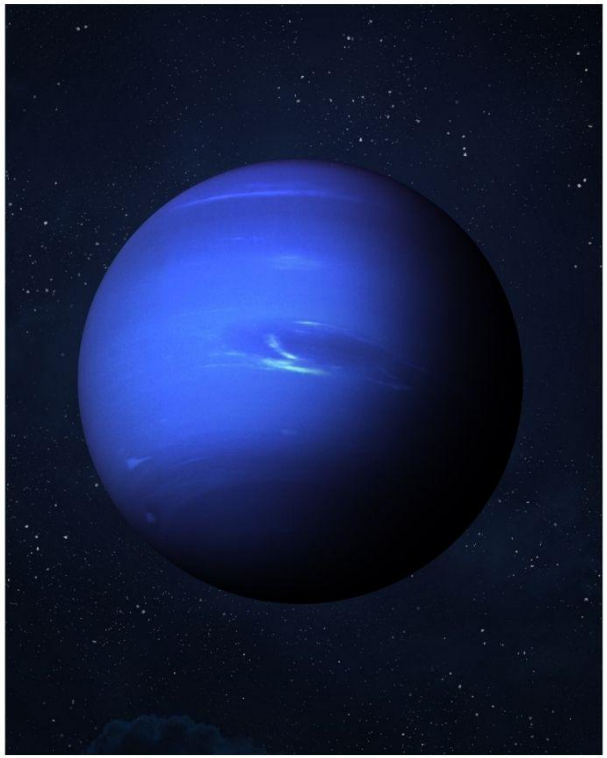
fact 1

fact 2

fact 3

fact 4

DESCRIPTION WRITING *Neptune*



fact 1

fact 2

fact 3

fact 4

fun fact

DESCRIPTION WRITING moon

fun fact

fact 1

fact 2

fact 3

fact 4