LS5 - The Outer Planets		
Earth and Space Sciences: Learn about the different planets in our solar system, and create models or art pieces to represent their unique features and positions. (ACSSU078) Understand how the Earth, sun, and moon interact with each other, and create art or diagrams to explain the causes of phenomena such as seasons and eclipses. (ACSSU115) Explore the different features of the sun, planets, and moons in our solar system, and create art or models to represent these features. (ACSSU146) Read and comprehend scientific texts about the origins and structures of the universe, and write summaries or reports to communicate key ideas. (ACSSU188) **Science as a Human Endeavour:** Explore the ways in which scientists gather and use evidence to develop explanations about the universe, and create multimedia presentations to share this information with others. (ACSHE081) Recognize the importance of space exploration and the challenges involved in exploring and	**Intro with Gavin** This week, we're embarking on an amazing journey to explore the fascinating outer planets of our solar system! Get ready to be amazed as we discover the wonders of Jupiter, Saturn, Uranus, and Neptune. Each of these planets has its own unique features and qualities that make them truly special. We'll also learn about the different materials that make up these gas and ice giants. After watching a fun video with Gavin and Dr. Karl, it's your turn to choose one of the outer planets and conduct some research. You can use diagrams, paragraphs, bullet points, and even tables to present your information. And to top it all off, you'll get to use your creative skills to design an awesome eight-page booklet all about the planets in our solar system. This week is all about letting your imagination soar, learning new information, and having fun! **Quote of the Week - Alan Shephard.** Throughout this course, we'll be exploring some inspirational quotes from the 12 astronauts who walked on the moon. Every week, you'll get to read one of these quotes and try to figure out what the astronaut meant by saying it. You can do some research to learn more about the astronaut or the space mission they were a part of, and write down your findings in your notebook. To make things even more fun, you can also create a drawing or artwork that shows what you think the quote is all about. This will help you engage with the quote and understand it better.	Intro Video With Gavin and Dr Karl https://upschool.co/courses/the-solar-system-and-beyond/lesson/learning-sequence-5-6 **Teacher Notes** - In this week's lesson, we will embark on an exciting journey to explore the outer planets of our solar system: Jupiter, Saturn, Uranus, and Neptune. Each of these planets possesses unique characteristics that make them truly extraordinary. We will delve into their fascinating features, compositions, and materials, paying special attention to the gas and ice giants. To begin, we will watch an engaging video featuring Gavin and Dr. Karl, which will provide us with a captivating introduction to the topic. Following that, students will have the opportunity to choose one of the outer planets and conduct their own research. They can present their findings using a variety of formats, including diagrams, paragraphs, bullet points, and tables. Moreover, students will unleash their creativity by designing an eight-page booklet dedicated to the planets in our solar system. https://upschool.co/courses/the-solar-system-and-beyond/lesson/learning-sequence-5-6 **Teacher Notes** - As part of the course, we will revisit a series of inspiring quotes from the 12 astronauts who have had the privilege of walking on the moon. Each week, students will be asked to critically analyze and interpret one of these quotes to gain a deeper understanding of the message conveyed by the astronaut. Students may also choose to conduct independent research on the astronaut or the particular space mission they were a part of, and record their findings in a notebook. To further enhance their

colonizing other planets, and express these ideas through creative arts or writing. (ACSHE082) **Mathematics (MATHEMATICS):** Measurement and Geometry Solve problems involving the use of units of measurement of length, mass, volume, capacity, and temperature, and create visual representations of the solutions. (ACMMG108) Use formulas to calculate the circumference and area of circles and solve related problems, and create diagrams or models to illustrate these concepts. (ACMMG280) **English (ENGLISH):** Language: Learn how to use adjectives and descriptive language to create interesting phrases and expand noun groups, and use these skills to create descriptive writing or art pieces about space and the universe. (ACELA1518) Understand the use of vocabulary about familiar and new topics and experiment with and begin to make conscious choices of vocabulary to suit audience and purpose, and use these skills to write or create multimedia pieces about space and the universe. (ACELA1522) Students interpret and analyze language features of texts, including the features of		engagement with the quote, students are encouraged to create an artistic representation, such as a drawing or visual art piece, that captures the essence of the message being conveyed.
	Weekly Keywords These words will help you during this week's lesson. You may already know some of these words however practice makes perfect! First, read the words and then try to define them as simply as possible. An example has been completed for you. You can write these into your books, and draw a picture to match or simply complete the task card.	**Keyword task Card** https://upschool.co/courses/the-solar-system-and-beyond/lesson/learning-sequence-5-6 **Teacher Notes** - Introduce the spelling word list and choose from this list of tasks that can be repeated and expanded upon if necessary. Copy the words into a spelling list/Vocabulary book for later reference. Put each of the new words into a sentence and underline the new vocabulary in red pencil Place the words in alphabetical order in a list. Use a dictionary to define each of the words and place them into a vocabulary book. Try to represent each of the words using a picture or a symbol and play the guessing game. (which image is matched to which word) Write a paragraph containing all of the new vocabulary. Make a vocabulary wall containing all of the new words. Use a thesaurus to find synonyms for the words and create a synonym list.
	Weekly Comprehension Activity - The Outer Planets Read the information opposite on the Outer planets and use the information gained from the video above and attempt to answer as many of the comprehension questions as possible.	https://upschool.co/courses/the-solar-system-and-beyond/lesson/learning-sequence-5-6 **Teacher Notes** - Each week, we will provide you and your class with a reading comprehension activity. This can be done independently or tackled

persuasive texts, and evaluate their effectiveness for specific purposes. (ACELY1701) Students create imaginative, interpretive and analytical responses to texts, experimenting with literary and textual devices. (ACELT1614) Students plan, draft and publish imaginative, informative and persuasive texts, selecting aspects of subject matter and particular language, visual, and audio features to convey information and ideas. (ACELY1704) **Humanities and Social Sciences:** Students identify the difference between natural and constructed features in the environment and the importance of their preservation. (ACHASSK112) Students describe the location of the major countries in relation to Australia and the influence of people and places on the characteristics of environments. (ACHASSK113) Students identify and describe the interconnections between people and the human and environmental characteristics of places and their changes over time. (ACHASSK114) **Literacy:** Read and comprehend texts about space and the universe, and create visual or written	You may talk to the people in the classroom and use any resources available in the classroom to get the answers. You may even wish to continue your research at home on the questions that you could not solve. We have made the questions range in difficulty, see how far you can get! Remember to answer the questions in full sentences and make notes of any diagrams or amazing facts that may help you remember the information later.	as a guided reading activity with your students. Once the children have read the relevant information, they can then work through the comprehension questions until they become too hard, The four levels of questions allow for your students to push themselves until they become too difficult. They may wish to use classroom resources to solve the questions they find too hard or they can be used as extension activities to be completed in free time or at home.
	An Outer Planet - 4 Things You didn't know... This week, we invite you to select your favorite planet from the outer planets and engage in some simple research to uncover four intriguing facts that are not commonly known about your chosen planet. While there are numerous books, videos, and documentaries available on the planets of our solar system, our focus this week is on discovering lesser-known facts that will truly astonish people. Pick your planet of interest, delve into your research, and prepare to astound those around you with these remarkable and fascinating facts! You can use the template opposite to help you, or create your very own design from scratch! Once complete, find three friends who have chosen other planets and share your information amongst each other! Sharing is Caring!	https://upschool.co/courses/the-solar-system-and-beyond/lesson/learning-sequence-5-6 **Template -** https://www.canva.com/design/DAFj26vPhVA/WTB_eOPeqoa6j4ujPtHS6Q/view?utm_content=DAFj26vPhVA&utm_campaign=designshare&utm_medium=link&utm_source=publishsharelink&mode=preview **Teacher Notes -** In this lesson, students are encouraged to choose their favorite outer planet and conduct research to discover four lesser-known facts about it. The objective is to explore beyond the commonly known information and find captivating facts that will amaze others. Students will be motivated to go beyond the surface level and dig deeper into the wonders of our solar system. By engaging in this activity, students will develop their research skills, critical thinking abilities, and presentation techniques. It's an opportunity to spark curiosity, foster creativity, and encourage students to share their newfound knowledge with their peers, promoting a sense of wonder and excitement in the classroom.

summaries of key ideas. (ACELY1709) Create imaginative, informative, and persuasive texts about space and the universe, using visual and multimodal features for different audiences and purposes, and express these ideas through creative arts or multimedia presentations. (ACELY1714) Participate in and contribute to discussions about space and the universe, comparing ideas, building on others' ideas and challenging thinking courteously, and express these ideas through creative arts or multimedia presentations. (ACELY1711) **Digital Technologies (DT):** Creating with Digital Technologies: Create and share information in an online environment, considering safety and social contexts, and use these skills to create digital art or multimedia pieces about space and the universe. (ACTDIK014) **Investigating with Digital Technologies:** Use digital systems to collect, store, and analyse data and information, and use computational thinking to manipulate and interpret this data, and create visual representations of this data. (ACTDIK008) Examine how digital systems can be used to represent data, and create visual information to communicate data and information to different	**Design Challenge - Create a Space Travel Brochure** This week, let's embark on a thrilling adventure as interstellar travel agents, offering tickets to captivating holidays in the outer solar system! Our mission is to collaborate and craft an enticing one-page travel brochure highlighting our favorite outer planet destination. Choose your desired planet from the mesmerizing options of Jupiter, Saturn, Uranus, or Neptune. We aim to discover its extraordinary attractions and unique features that will ignite a deep longing in people to explore. Through vivid imagery and descriptions, our brochure will be a stunning masterpiece that awakens the wanderlust within. Imagine this brochure as a captivating guidebook, ensuring every reader's heart races with anticipation to uncover the wonders of the outer planets. Let your imagination soar as we combine words and images, capturing the essence of an extraordinary journey that awaits intrepid travelers. Use the provided design template and follow the design guidelines to create a travel brochure that transcends the boundaries of the stars and takes your customers beyond their wildest dreams!	https://upschool.co/courses/the-solar-system-and-beyond/lesson/learning-sequence-5-6 Template - https://www.canva.com/design/DAFlSLzg6Sc/OlS-Dn78NGmY33zyK04wJg/view?utm_content=DAFlSLzg6Sc&utm_campaign=designshare&utm_medium=link&utm_source=publishsharelink&mode=preview **Teacher Notes** - This lesson is all about fostering creativity and design freedom among the students. The goal is to engage them in a project where they can unleash their imagination and create a travel brochure for holidays in the outer solar system. By emphasizing creativity, we encourage students to think outside the box and come up with unique ideas for their chosen planet. It's important to provide the students with freedom in their design choices, allowing them to explore various visual elements, layouts, and formatting styles. Encourage them to experiment with colors, images, and fonts to make their brochures visually appealing and captivating. By granting this creative freedom, students will not only develop their artistic and design skills, but also learn to think critically and make persuasive choices to attract potential travelers. This lesson promotes individuality, self-expression, and fosters a sense of ownership over their work. Remember to provide guidance and support throughout the process, while allowing students to explore their own ideas and make independent decisions. The end result will be a collection of unique, imaginative, and visually stunning travel brochures that showcase the students' creative potential and design capabilities.
	Bringing Mathematics to life! - Space vs Earth This week, we have an exciting project ahead of us! We're going to learn all about the solar system and compare it to things we have here on Earth. The solar system is filled with incredible objects, and	https://upschool.co/courses/the-solar-system-and-beyond/lesson/learning-sequence-5-6 Template LInk- https://www.canva.com/design/DAFj9Iiggi4/OEHIk

audiences, and express these ideas through creative arts or multimedia presentations. (ACTDIP019) **Visual Arts (VISUAL ARTS):** Explore and Express Ideas: Experiment with different materials and techniques to represent and communicate ideas inspired by space and the universe. (ACAVAM116) Plan and develop imaginative compositions and designs using visual conventions, such as size, scale, perspective, symmetry, and contrast, to communicate ideas related to space and the universe. (ACAVAM117) Present and Perform: Select and use different presentation methods, such as exhibitions or digital displays, to communicate ideas and convey mood or feeling about space and the universe. (ACAVAM118)	we want to see how they measure up to things we're familiar with. Our task is to carefully study nine objects from the solar system and find similar-sized objects right here on Earth. This will help us understand the solar system better and see how it compares to our own planet. Remember, it's important to gather information from different sources before we start working on our project. Good luck, and have fun exploring the wonders of the solar system!	AcfHdSDkDBP9QNLQQ/view?utm_content=DAFj9Jiggi4&utm_campaign=designshare&utm_medium=link&utm_source=publishsharelink&mode=preview **Teacher Notes -** This lesson focuses on measurement and comparison within the context of the solar system. Students will explore nine carefully selected objects from our solar system and identify similar-sized objects on Earth. The objective is to provide students with a tangible understanding of the scale and proportions of celestial objects. By engaging in research and analysis, students will gain valuable skills in measurement, data gathering, and critical thinking. This lesson encourages students to put the vastness of the solar system into perspective while highlighting the similarities and differences between the celestial realm and our planet.
	Global Impact - Let's Design 12-Page Planet Booklet This week, we invite you to create your very own space book to share with children all around the world. You and a friend can join forces and become space experts together! The first step is to conduct thorough research on the eight planets of our solar system. Explore books, websites, and various resources to gather fascinating facts and information. Once you have accumulated all that knowledge, it's time to unleash your creativity! Utilize the provided template to design a captivating 12-page booklet. Each page will be dedicated to a different planet, allowing you to include cool diagrams, captivating images, and even fun activities. Ensure your book is complete by crafting an attention-grabbing front cover, setting the stage for an incredible cosmic journey with an introduction page, and writing a compelling blurb that will ignite excitement in readers. Now, here comes the most thrilling part - you have the opportunity to share your book with another school located anywhere in the world! Just imagine the joy and curiosity it will bring to children far away. Reach out to a school, arrange for your book to be sent, and	https://upschool.co/courses/the-solar-system-and-beyond/lesson/learning-sequence-5-6 Template - https://www.canva.com/design/DAFlTmBfvPQ/aXH-EtYBxlf_AL-rhcFnsw/view?utm_content=DAFlTmBfvPQ&utm_campaign=designshare&utm_medium=link&utm_source=publishsharelink&mode=preview **Teacher Notes** - In this lesson, we place a strong emphasis on fostering design skills and creativity among students. The objective is for students to create their own space book to share with children worldwide. They will work in pairs, conducting research on the planets and designing a 12-page booklet. Students have the freedom to unleash their creativity by incorporating captivating visuals, diagrams, and engaging content. The lesson encourages students to think imaginatively, design visually appealing layouts, and utilize their artistic talents. By focusing on design and creativity, students will not only develop their artistic abilities but also learn to communicate

	let your knowledge travel across the globe, fostering a sense of wonder and discovery.	scientific concepts effectively through visually appealing and engaging materials.
	Let's Create with Jordan - Creating a Sphere Every week, we'll provide you with an art activity related to what we've been learning about in class. It's an opportunity for you to enhance your artistic abilities and learn more about the Solar System and Space! Jordan will be joining us every week to brainstorm creative ways to showcase what we've learned about Space while also doing some good for the world. We may challenge you to use recycled materials for your artwork, encourage you to teach someone else using what you create, or simply give it away as a gift to brighten someone's day. Take a look at the video on the other side and then do your best to follow Jordan's guidance to make the world a better place with your creative skills. To fully understand what we will be creating this week, you may wish to watch the full video below before starting. Let's get creative!	**Gavin Interviewing Jordan Raw File -** https://upschool.co/courses/the-solar-system-and-beyond/lesson/learning-sequence-5-6 **Teacher Notes -** Sphere and Planet *Core Curriculum Connection*: Science, Mathematics *Elemental Foci*: Color, Form, Value *Principle Foci*: Unity, Contrast, Emphasis Goal: Students will be able to create realistic pair of spheres using Graphite, Colored Pencil, and Marker Criteria: -Create two circles of similar size. -Establish the light source and highlight on each sphere, making the light reflect on a single circle on each. -On the left sphere, use progressively darker sections of value in graphite to create a

		gradual value shift, radiating out from the highlight. -Use Markers or other colored media to create base colors over the surface of your second circle, choosing between color ranges that match to a specific gas giant in our solar system. -Use white and black colored media (colored pencils) to create highlights and form shadows similar to the progression of your left sphere on top of your marker. Relevance: Through this project, students will understand how surface color does not affect form illusion, and that planets reflect light from the sun, making them spheres.
	Watch the Full Video Watch Jordan's full video here before starting your creative art project and remember that your work does not need to match Jordan's exactly. Use it as a guide and try to make your work unique and be as creative as you like!	Jordan Full Video here - https://upschool.co/courses/the-solar-system-and-beyond/lesson/learning-sequence-5-6