

OUTER SPACE

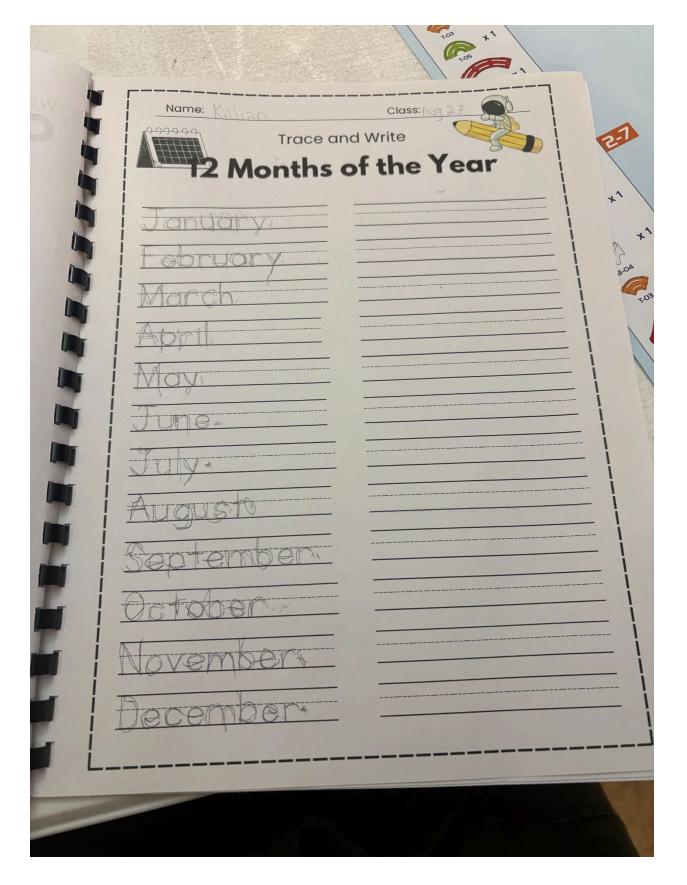
INTRO TO OUTER SPACE

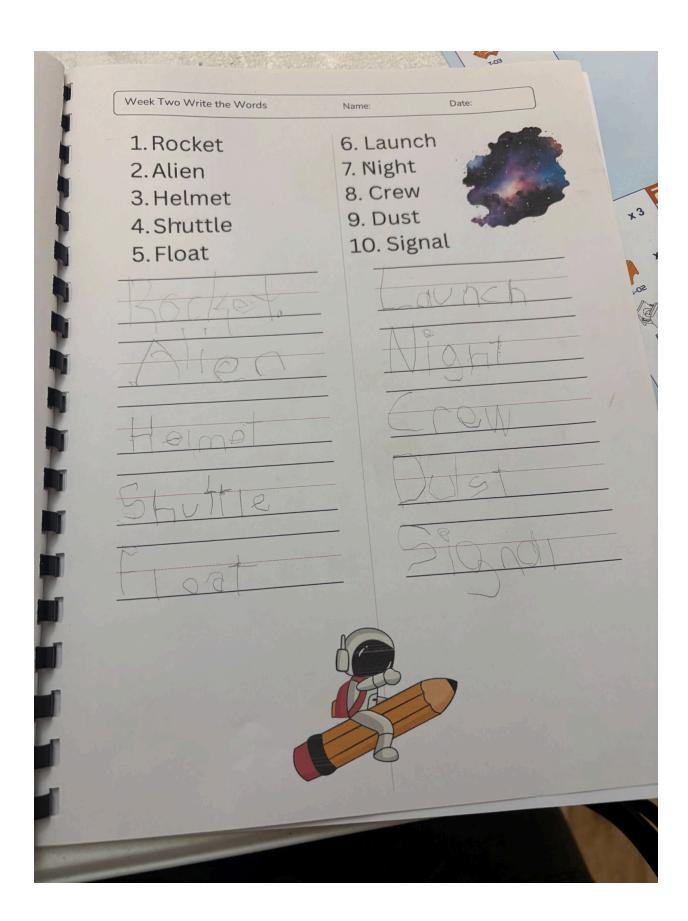
Hello, young explorer! Are you ready to embark on a journey that's out of this world? Today, we're going to learn about outer space, a place where stars twinkle, planets spin, and mysteries abound. Outer space is like a giant playground that stretches far beyond what our eyes can see. Let's get ready for an adventure that will take us across the universe!



FUN FACTS

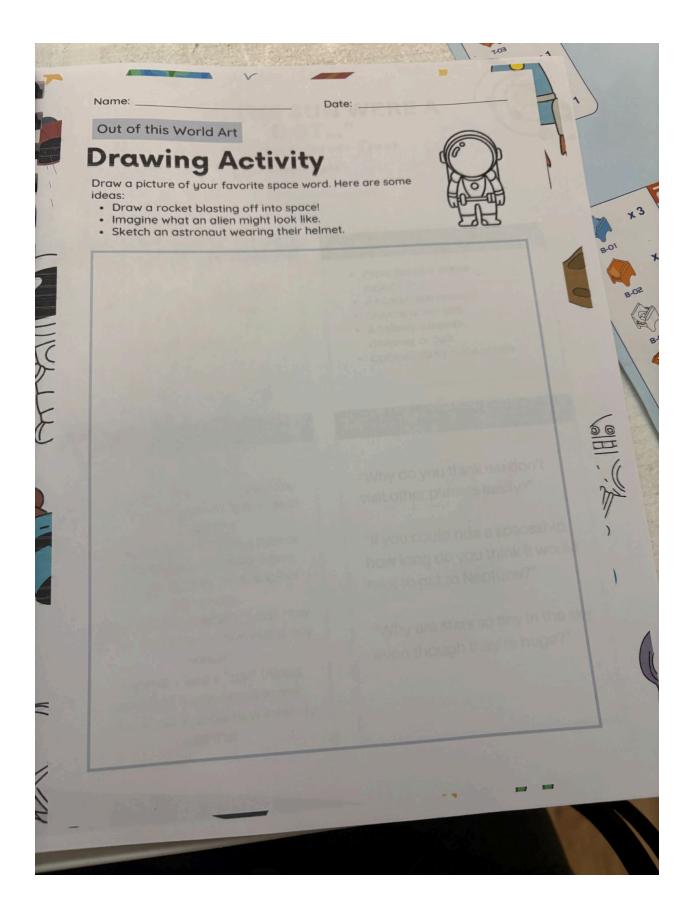
- Endless Universe: Outer space is so huge that we call it the universe. It's bigger than anything you can imagine and keeps getting bigger every day!
- Stars and Galaxies: When you look up at the night sky, you see stars twinkling. These stars are giant balls of gas that shine brightly, and they group together in big families called galaxies. Our galaxy is called the Milky Way.
- Planets and Moons: Our Earth is a planet, and it has a friend in the sky called the Moon. There are other planets, like Mars and Jupiter, each with its own moons.
- No Air: In outer space, there's no air to breathe or to carry sound. That's why astronauts need special suits to keep them safe and help them breathe.
- Gravity: Gravity is what keeps us on the ground. In space, there's very little gravity, which is why astronauts float around like they're flying!
- The Sun: The Sun is a star and the center of our solar system. It gives us light and warmth. Without the Sun, life on Earth wouldn't be possible.
- Asteroids and Comets: Space is full of interesting objects like asteroids and comets. Asteroids are rocky, while comets are icy and create bright tails when they get close to the Sun.





Name WORD MATCH: SPACE Match each space word to its correct definition. Write the number of the word in the box next to the definition. A big ring in space where many asteroids travel together. 1. Asteroid To move gently through space without touching anything. 2. Belt A small, rocky object that floats through 3. Rocky Very small, some asteroids are no bigger than a car! 4. Crash Tiny bits of rock, asteroids, can leave dust trails behind. Float Something that could hurt, some big asteroids are dangerous to planets. Tiny To turn around fast, asteroids spin as they fly. Spin 7. Made of rock—asteroids are like space rocks! When something hits another thing hard, Dust asteroids can crash into planets. A big hole is made when an asteroid hits 9. Crater something. 10. Danger

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Name	· Kulan	Date:	-
Fill	in the Mis	ssing Word: Space	
2. 3. 4. T 5. 6. 7. T	At Aight, is a she dust is a when there is the Modet to An Ale A	the stars twinkle brightly in the sky. team of people working together on space mission. full of little particles that float arous sent from Earth to communicate win astronauts. Is no gravity, everything begins to ook off from the ground with a power thrust. might visit Earth in our imagination stories. It is ready to take astronauts to cernational Space Station. of the rocket was a thrilling everyone watching. Rocket Alien Helmet Shuttle Float Launch Night Crew Dust Signal	a golden. Ind. th verful on or



"IF THE SUN WERE A DOT..."

Science Experiment: Space

Student Name





OBJECTIVE:

To help students visualize the size of our solar system and how far apart planets and stars really are.

MATERIALS:

- Paper (scrap or printer paper)
- A ruler or tape measure
- Crayons or markers
- A hallway, sidewalk, driveway, or park
- Optional: sticky notes or tape

INSTRUCTIONS:

- Let's Build It!
- Start at "The Sun" draw a tiny dot or use a yellow sticky note to represent it.
- Measure outward with a ruler or tape measure and mark where each planet goes (with another dot or note).
- 3. Walk it out with Killian: "Look how far Earth is from the Sun in this tiny model!"
- 4. Optional: Place a "star" (Alpha Centauri) 5 miles away in real space scale to show how insanely vast it is!

DISCUSSION:

"Why do you think we don't visit other planets easily?"

"If you could ride a spaceship, how long do you think it would take to get to Neptune?"

"Why are stars so tiny in the sky even though they're huge?"

"IF THE SUN WERE A DOT ..." Science Experiment: Space

Student Name





EXPERIMENT SETUP:

Setup the Scale:

We're going to shrink the solar system so that the Sun is the size of a dot (like the tip of a pencil), and then show how far away each planet would be in that tiny model. You'll draw dots or place notes to mark:

Object Real Distance from Sun Scaled Distance (Sun = dot)

Mercury 36 million miles 1 inch

Venus 67 million miles 1.8 inches

Earth 93 million miles 2.5 inches

Mars 142 million miles 3.8 inches

Jupiter 484 million miles 13 inches

Saturn 886 million miles 24 inches

Uranus 1.78 billion miles 48 inches (4 ft)

Neptune 2.79 billion miles 76 inches (6.3 ft)

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	SOCIAL	Name:		7	
		Date:			
4	STUDIES			Alp.	
4	How Diffe	erent Cultures View S	Space	7	* ×3
4	Egypt (Africa):	e Sun God Ra's Journey		-	,01
70	"Every day, the Sun rose boat across the sky. At n and the Moon came out!	because the god Ra wo ght, he went into the ur	as riding a magic nderworld to rest—		BO2
55	Ask: "If you had a sun bo	at, what would it look lil	ke?"		1
783	China (Asia):				
	"People in China told sto lives on the Moon with he watches over the Earth."	ne Moon Lady Chang'e ries about a kind lady er pet bunny. She float:	named Chang'e wh		6
	Ask: "What do you think	she sees from way up	there?"		1
	Navajo (North America)	Stars as Campfires			31/
	"Some Native American campfires built by the sp	tribes like the Navajo	believed the stars sky."	were	7
	Ask: "Would you like to b	uild a star campfire?	What would it look	k like?"	7
	 Vocabulary Words Legend – a story ped Spirit – an invisible h 	elper or magical bel	mething ing		(
	 Sky - the space abo God/Goddess - a po Stars - tiny lights in t 	ve Earth werful being from C	culture's stories		
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	Name: Date:
	READING COMPREHENSION SPACE
	Check the true statements and cross out the false one. According to Chinese legend, Chang'e is a kind lady who lives on the Moon with her pet rabbit. She is often depicted floating among the stars, watching over the Earth. The Navajo believed that the Moon was a giant wheel of cheese that the stars nibbled on at night. (This is a playful myth often told to children, but not a true part of Navajo beliefs.) At night, Ra was believed to journey through the underworld, which explained the absence of the Sun and the arrival of the Moon. In ancient Egyptian mythology, Ra was known as the Sun God who traveled across the sky in a magical boat each day, bringing daylight to the world. What country had the moon lady?
	What did the Navajo believe about the stars?
	Talk About it: Why do you think Ra needs to rest in the underworld at night?