WRITTEN BY Tina Cho ILLUSTRATED BY Marta Álvarez Miguéns

God's Little Astronomer

Discussion Guide for Teachers and Homeschooling Families



GOD'S LITTLE ASTRONOMER DISCUSSION GUIDE

This discussion guide is written by Tina Cho, author of the children's book *God's Little Astronomer*. Tina is an elementary teacher of twenty years with a master's degree in education from Drake University and a bachelor's degree in elementary education from Faith Baptist Bible College.

BEFORE READING

- Invite children to observe the book's cover and share ideas about what they think it is about.
- Read the title. Ask: What do you think an astronomer is? Define astronomer. (An astronomer is a person who looks at and observes celestial things in the sky, such as the sun, moon, and stars.)
- Ask: Can you name some of the things an astronomer can see on the cover? What do you already know about them?
- Introduce a KWL chart using the template on page 5. Ask: What do you know about space? What do you want to know? And what did you learn after reading the book?
- Invite children to consider: How did everything in outer space get there? Who created them?



GOD'S LITTLE ASTRONOMER DISCUSSION GUIDE

DURING THE READING

 As you read the book, invite children to begin working on the KWL chart after each page. Ask: What did you learn? What would you like to know more about?



• Invite children to place sticky notes on the pages: Mark a smiley face or heart for things the children liked, a question mark for things to learn more about, or an exclamation point for new facts.

AFTER READING

- Review the KWL chart and talk through it: What did you learn? What would you like to know more about?
- Go over the book again and discuss the parts marked with sticky notes: What was your favorite part of the book? Is there a Bible verse that stood out to you?
- Close the discussion with these questions:
 - How do you think everything in outer space got there?
 - What Bible verses can you think of to tell someone about the creation of the universe?
 - What did you learn about God after reading this book?
 - From learning about God's creation of the universe, what did you learn about God's love for you?



GOD'S LITTLE ASTRONOMER EXTENSION ACTIVITIES

Here are more ways to help young scientists explore and celebrate God's role in creation.

COMPLETE A BIBLE STUDY

Search "God's Little Astronomer" under the Plans section for a free 5-day family devotional on the YouVersion app or Bible.com. Invite children to write some of their favorite Bible verses from the book on a note card and try memorizing them.

SEEK AND FIND CHALLENGE

Read God's Little Astronomer and spot these objects in the book: asteroid, astronaut, birthday cake, book, Ceres, comet, Crux, deer, Earth, floating pencil, meteor, Milky Way, moon, rabbit, Red Supergiant Star, rocket, satellite, Saturn, sun, telescope, tree, White Dwarf Star.

WORD SEARCH

Find the keywords in the book in a word search on pages 7 and 8.

CONNECT THE STARS

Connect the stars from 1 to 70 and color in the object in the activity sheet on page 9.

MAKE AN EARTH ORBIT CARD

Create a pop-up penny slider birthday card featuring the earth orbiting the sun using the instructions on pages 10 to 16. Celebrate birthdays with outer space party themes. How many years or days have you orbited the sun?



GOD'S LITTLE ASTRONOMER EXTENSION ACTIVITIES

SOLAR SYSTEM MAP

Make your own solar map system with the activity sheet on page 17.

MAKE ASTRONOMY COOKIES

Bake sugar cookies in the shapes of the moon, sun, stars, and planets and decorate them.

LEARN ABOUT MOON PHASES

Visit the NASA Science website to study moon phases and complement your learning with the activity sheet on page 18.

PAINT A COMET'S TAIL

Discover more comet facts from the NASA Science website and complete the drawing on page 19.

TAKE A FIELD TRIP TO YOUR LOCAL OBSERVATORY

Look through their telescopes. What constellations do you observe? Use the activity sheet on page 20 to make your own constellation.

COLORING SHEETS

Explore pages 21 and 22 in this guide for more astronomy coloring activities for young children.



GOD'S LITTLE ASTRONOMER EXTENSION ACTIVITIES

MAKE AN ASTRONOMY JOURNAL

On clear nights, go outside and view the sky. Draw what you see. Then, look at a star map on the internet and see if you can label the constellations or planets. What phase is the moon? Have an adult keep track of space news, such as when the next meteor shower will be, the next space flight, or new discoveries.

PAINT A PLANET

Which planet intrigues you? Research more about it by checking out books at the library or looking online.

VISIT YOUR SCIENCE CENTER

Check out the astronomy activities.

CREATIVE STORY TELLING

Write a story about a constellation you see.

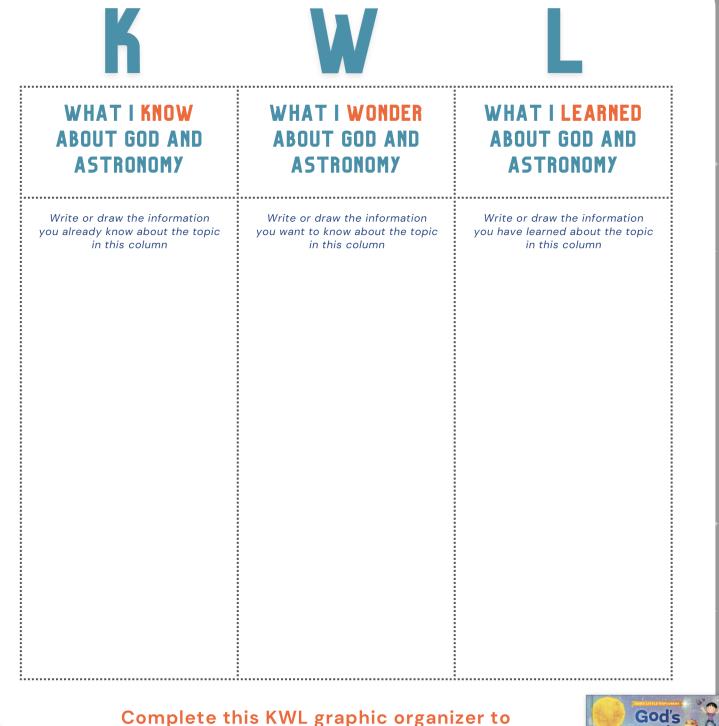
MAKE A TRAVEL GUIDE FOR PLANET EARTH

What are some of your favorite places on Earth that you would recommend friends to visit?





GOD'S LITTLE ASTRONOMER KWL CHART



Complete this KWL graphic organizer to summarize what you learned about God and astronomy as you read *God's Little Astronomer*.

6



GOD'S LITTLE ASTRONOMER WORD SEARCH

Can you find the words hidden in the puzzle?

Ρ	W	Е	S	G	R	А	S	Т	R	0	Ν	0	М	Е	R	т	Е	т	0	Ρ	L
W	А	М	Ρ	А	L	М	Ι	Ν	Т	S	Т	Е	L	Е	S	С	0	Ρ	Е	Ι	С
Е	Ν	Е	S	L	Е	0	А	0	Е	Ι	А	Т	0	А	U	А	R	Q	А	W	R
S	А	Т	Е	А	S	W	Е	R	С	А	Е	Ι	R	С	0	Μ	Е	Т	R	А	Е
0	С	Е	G	Х	L	G	Е	Е	V	0	Т	А	Н	Н	D	А	G	S	0	Е	А
L	Ν	0	0	Y	М	Х	L	R	L	Е	Е	А	R	Ρ	G	D	S	Е	U	Е	Т
А	М	R	D	۷	U	S	Е	0	L	А	L	Y	0	Т	Ι	R	F	Ρ	Μ	Ν	0
R	D	Е	А	U	Ν	Ι	V	Е	R	S	Е	0	Е	Х	Н	Н	А	G	Y	0	R
S	L	Е	Н	S	А	0	S	Т	L	Y	Т	R	U	0	Ρ	Е	W	V	А	т	М
Υ	J	Н	Е	М	D	С	Н	Н	V	0	Ρ	L	Т	S	Т	Ι	А	Ν	Ι	М	Ν
S	Е	Н	А	Е	0	R	Ρ	F	Ι	0	V	А	D	С	Ρ	Н	0	D	0	Т	Е
Т	S	Н	۷	Ρ	Е	0	С	0	Ν	S	Т	Е	L	L	А	Т	Ι	0	Ν	С	Υ
Е	U	Ι	Е	R	Е	Е	Ν	Т	Т	V	U	Ι	А	G	D	R	Ν	Н	А	L	Т
М	S	Е	Ν	А	Ι	S	S	А	S	Н	Ι	Ν	Е	Y	Н	Т	Е	Ρ	Т	А	0
С	С	Ρ	L	А	Ν	Е	Т	G	G	0	Е	А	М	Т	Е	Y	S	т	А	R	G
Е	Ι	R	F	Ν	Q	М	Т	А	S	Т	Е	R	0	Ι	D	Т	Е	S	Ν	к	W

ASTRONOMER	SUN	GOD	HEAVEN	ASTEROID
CONSTELLATION	MOON	CREATOR	LOVE	UNIVERSE
TELESCROPE	STAR	JESUS	SHINE	GALAXY
SOLAR SYSTEM	PLANET	GLORY	METEOR	COMET
MARVELOUS	EARTH	SPACE	GRAVITY	



GOD'S LITTLE ASTRONOMER WORD SEARCH

-ANSWER KEY-

Ρ	W	Е	s	G	R	Α	S	Т	R	0	Ν	0	М	Е	R	Т	Е	Т	0	Ρ	L
W	А	Μ	Ρ	А	L	Μ	Ι	Ν	Т	S	Т	Е	L	Е	S	С	0	Ρ	Ε	Ι	С
Е	Ν	Е	S	L	Е	0	А	0	Е	Ι	А	Т	0	А	U	А	R	Q	А	W	R
S	А	Т	Е	А	S	W	Е	R	С	А	Ε	Ι	R	С	0	М	Е	Т	R	А	Е
0	С	Е	G	Х	L	G	Е	Е	V	0	Т	А	Н	Н	D	А	G	S	0	Е	А
L	Ν	0	0	Y	М	х	L	R	L	Е	Е	А	R	Ρ	G	D	S	Е	U	Е	т
А	М	R	D	V	U	S	Е	0	L	А	L	Y	0	Т	Ι	R	F	Ρ	М	Ν	0
R	D	Е	А	U	Ν	Ι	V	Е	R	S	Е	0	Е	Х	Н	Н	А	G	Y	0	R
S	L	Е	Η	S	А	0	S	Т	L	Y	Т	R	U	0	Ρ	Е	w	V	А	т	М
Υ	J	Н	Е	Μ	D	С	Н	Н	V	0	Ρ	L	Т	S	Т	I	А	Ν	Ι	М	Ν
S	Е	Н	А	Е	0	R	Ρ	F	Ι	0	V	А	D	С	Ρ	н	0	D	0	Т	Ε
т	S	Н	\vee	Ρ	Е	0	С	0	Ν	S	Т	E	L	L	А	Т	Ι	0	Ν	С	Y
Е	U	Ι	Е	R	Е	Е	Ν	Т	т	V	U	Ι	А	G	D	R	Ν	н	А	L	Т
Μ	S	Е	Ν	А	Ι	S	S	А	S	Н	Ι	Ν	Е	Y	Н	т	Е	Ρ	Т	А	0
С	С	Ρ	L	А	Ν	Е	Τ	G	G	0	Е	А	М	Т	Е	Y	S	Т	А	R	G
Е	Ι	R	F	Ν	Q	М	Т	Α	S	Т	Е	R	0	Ι	D	Т	Е	S	Ν	к	W

ASTRONOMER	SUN	GOD	HEAVEN	ASTEROID
CONSTELLATION	MOON	CREATOR	LOVE	UNIVERSE
TELESCROPE	STAR	JESUS	SHINE	GALAXY
SOLAR SYSTEM	PLANET	GLORY	METEOR	COMET
MARVELOUS	EARTH	SPACE	GRAVITY	



GOD'S LITTLE ASTRONOMER CONNECT THE STARS

Connect the stars from 1 to 70 and color in the object to blast off into outer space!

24

+ 25

+ 26

***** 27

+ 28

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+ 37

+ 38

+ 39

+ 40

+ 41

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43

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23

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21

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19 🖕

18

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49 🔶

48+

47 +

46

15

14

B

12

9 <mark>, ¹⁰ ,</mark>

8 🛓

67

63 🔸

60

59

9

65

58

64 🔸

62 ^{*}

68

69

7

6 🛓

5 🔒

3 🔒

70

2 4

55

Did you know the Earth completes its orbit around the sun yearly? You can celebrate a year of traveling around the sun on your birthday. Make a unique birthday card with this interactive penny slider pop-up Earth orbit card.

WHAT YOU'LL NEED

- 2 white cardstock sheets
- 1 black cardstock sheet
- Glue stick or double-sided clear tape (avoid using liquid craft glue)
- Double-sided foam tape
- 1 penny and nickel, each
- Scissors
- Metallic markers or bright gel pens
- Color printer
- Astronomy stickers (optional)

Here's what the inside of your card will look like!

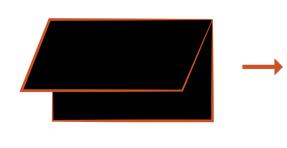




DIRECTIONS

Decorate the front of the card:

- Begin by printing pages 14 and 15 on white cardstock paper in color.
- Cut out all the objects on page 15 along the dotted lines.
- Fold the black cardstock paper in half lengthwise. Arrange the folded card horizontally with the crease on the top.
- Set the Earth and sun cutouts aside. Then, decorate the front of the card with the rest of the cutouts from page 15.
- Get creative! Use gel pens or metallic markers to draw stars and personalize your card. You can also use astronomy stickers.





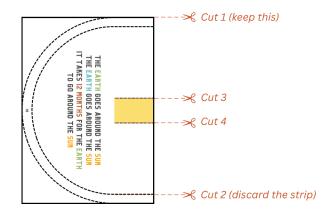
Prepare the pop-up card:

• Fold the pop-up card template (page 14) in half lengthwise with the illustrations facing outward. The fold crease line will match the line across the center of the card.

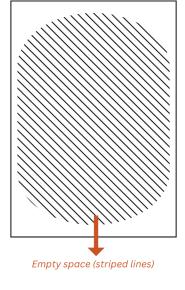


Prepare the pop-up card (continued):

- Cut out the pop-up card:
 - *Cut 1:* Make a cut along the first outer half circle. Set the cutout aside.
 - Cut 2: Make another cut along the second outer half circle. It will form a thin white strip. Discard it.
 - Cuts 3 and 4: Make two cuts along the dotted lines of the yellow rectangle on the remaining part of the card.



- Create the pop-up tab:
 - Unfold the card and gently push the yellow rectangle tab along the middle crease toward you until it pops out at a 90-degree angle away from the card.



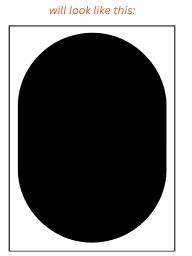
Keep this cutout (after cut 1)





Glue parts of the card together:

- Unfold the black cardstock paper with the blank side facing you. Glue or tape the corners of Cutout 1 over it.
- Then, glue or tape the pop-up card onto the center of the black space, excluding an inch around the edges of the pop-up card. The black outline will form a track for the penny slider to orbit around the card.



Cutout 1 + black cardstock

The inside of cutout 1 + black cardstock + pop-up card will look like this:



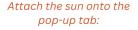
Make the penny slider:

- Cut a small piece of foam tape (approximately ½ inch wide) and place it vertically on the center of a penny.
- Center align a nickel and attach it to the side of the penny with the foam tape.
- Finally, tape the Earth cutout from page 14 over the nickel.



Attach the sun onto the pop-up card:

- Apply double-sided foam tape onto the yellow pop-up rectangle.
- Then, attach your cutout of the sun (from page 15), lining it with the bottom edge of the rectangle. This prevents the sun from folding over when the card closes.





Assemble your card:

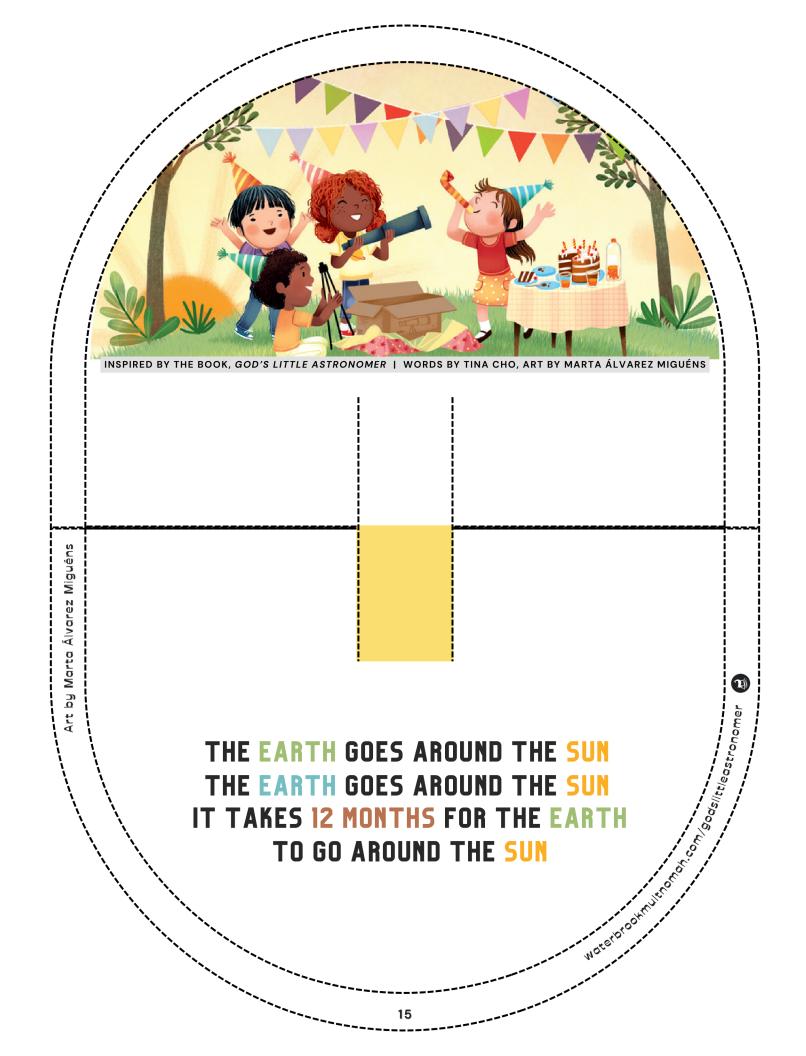
- Insert the assembled penny slider into your track carefully.
- Ensure that the penny is under the pop-card and the white outer layer of the card (i.e., Cutout 1). The foam tape should fit snuggly in the track, allowing the penny slider to slide freely along it.

Carefully insert the Earth penny slider into the black track:



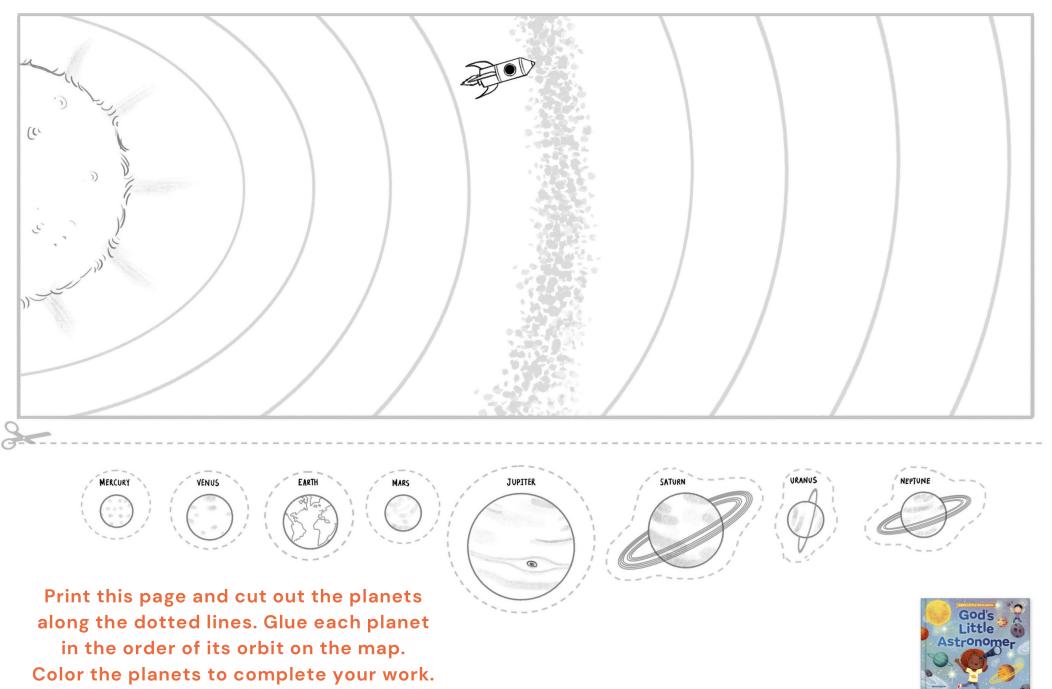
Your card is ready! Don't forget to demonstrate how Earth orbits the sun with your card!





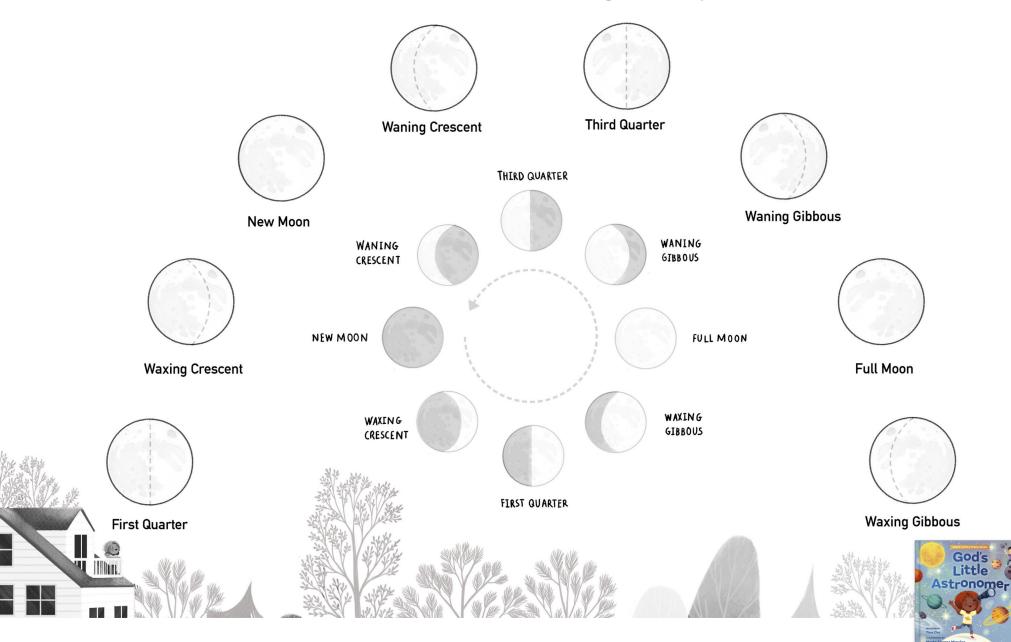


THE SOLAR SYSTEM



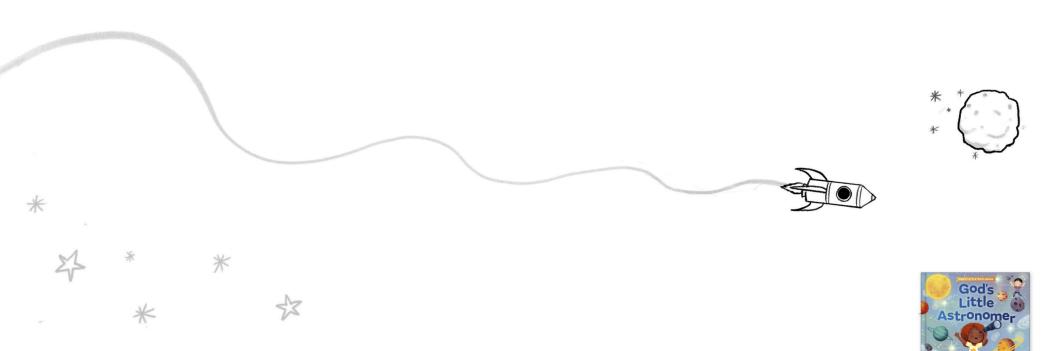
THE MOON PHASES

How well do you know about moon phases? Color the shadow of the moon according to each phase below.





A comet leaves a trail of dust behind its orbit. Complete the drawing by coloring or painting in the tail of the comet.

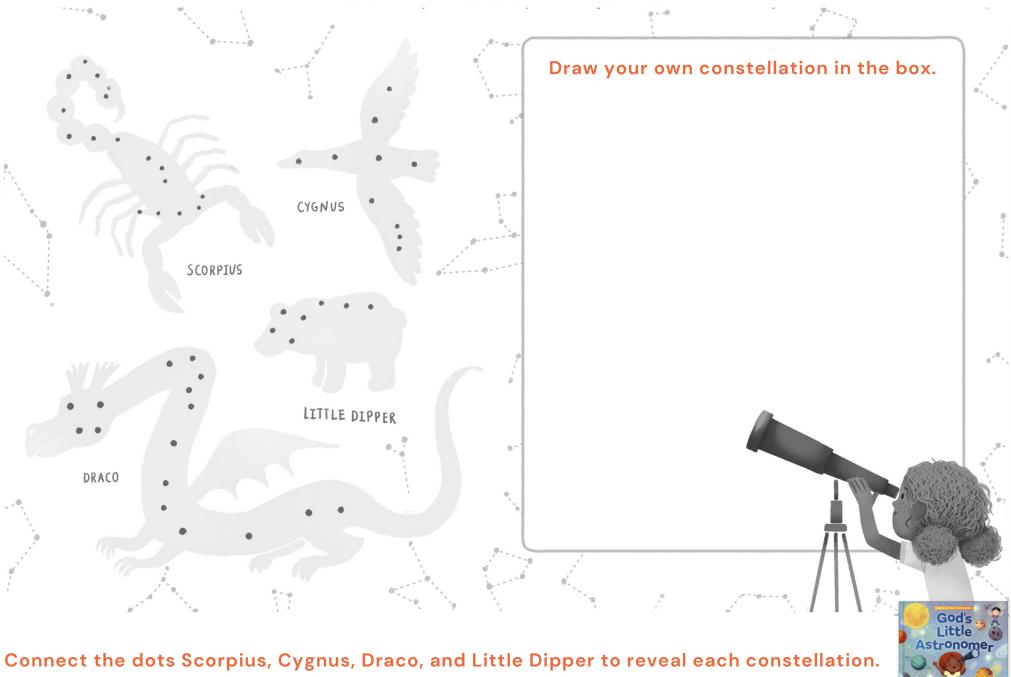


A

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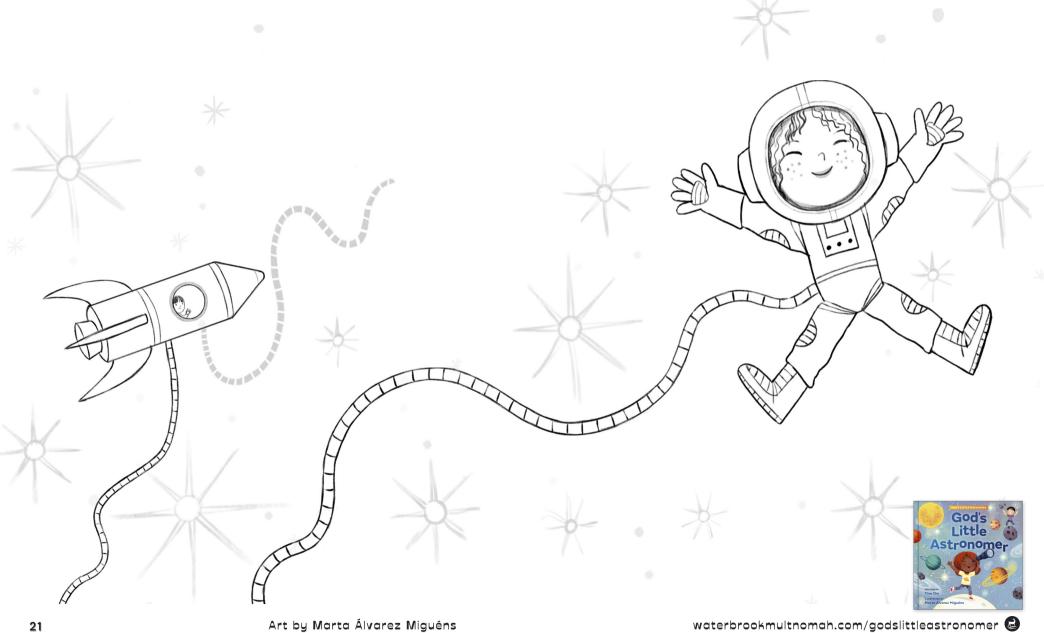
CONSTELLATIONS



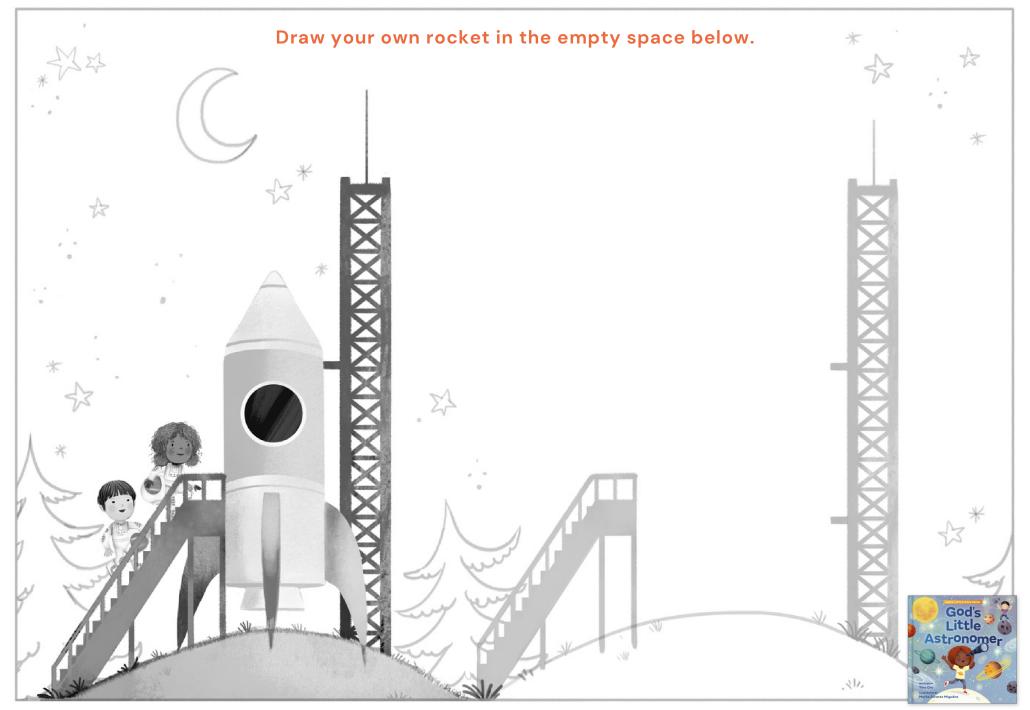
THE STARS

Color the astronaut and rocket.

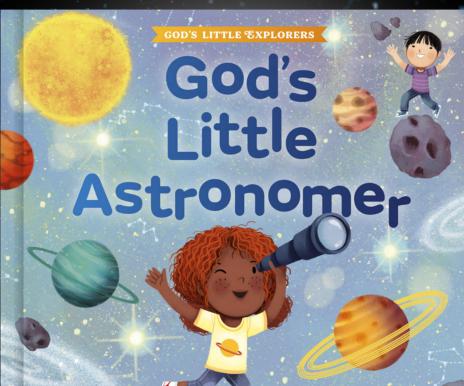
Draw yellow and orange dwarf stars or red and blue giant stars in the background. Draw yourself as an astronaut at the end of the rocket's safety tether.



MY VERY OWN ROCKET



Add God's Little Astronomer to your book collection



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