

IDENTIFYING SHAPES IN SPACE

Challenge students to find geometric shapes on rocket ships, then design a spacecraft of their own.

Objective

Students will identify and draw shapes using shape names.

Standards

Common Core

Math

- **Grade 1:** 1.G.A.1 Distinguish defining attributes of shapes
- **Grade 2:** 2.G.A.1 Recognize and draw shapes with specified attributes

Time

40 minutes

Materials

- Find the Shapes in a Rocket activity sheet
- Out-of-This-World Family Fun family activity sheet
- Bonus activity sheets: Practice Punctuation + How Can I Solve Problems?



Remote Ready


- 1 Ask** students if they have heard the word **rocket**. *What does it mean? (Type of spaceship.) What does it look like? What kinds of people might be around a rocket? (Scientist, astronaut...)* Introduce the term **rocketry**—the science of designing, building, and flying rockets.
- 2 Ask** your students to use their imaginations. If they designed a rocket, which shapes would they use? *Would they be inspired by the shape of an animal? A different kind of vehicle? Would they be inspired by another unexpected object?*
- 3 Explain** to the class that they will examine the plans for two rocket ship designs. Then they will play the role of a rocket scientist as they design their own spaceship using geometric shapes.
- 4 Distribute** the Find the Shapes in a Rocket activity sheet and work together as a class or individually to complete the grade-specific instructions (Grade 1 = Level A; Grade 2 = Level B).
- 5 Using** the appropriately leveled list on the activity sheet, have students select three or more types of shapes. Instruct them to use these shapes to draw their own rocket ships. Encourage them to be creative!
- 6 Invite** students to pair up and share their rocket ships and discuss where and how shapes are used in their designs.




If learning remotely, student pairs can write short letters to each other about the rockets they designed and/or include a copy of their drawing.

Extension Have students use recycled materials to create a 3D model of their rocket ship design.

Related Activities

 **Rockets in ELA:** Add fun to punctuation practice with the Practice Punctuation activity sheet. Then use the story ideas on the sheet to “launch” a writing activity.

 **Problem-Solving in Science & SEL:** Using the card cutouts on the How Can I Solve Problems activity sheet, students analyze scenarios and identify skills they can use to address them.

Standards for Related Activities

Common Core—ELA

- **Grade 1:** L.1.2.B Use end punctuation for sentences
- **Grade 2:** L.2.2 Demonstrate command of punctuation

CASEL—Social and Emotional Learning

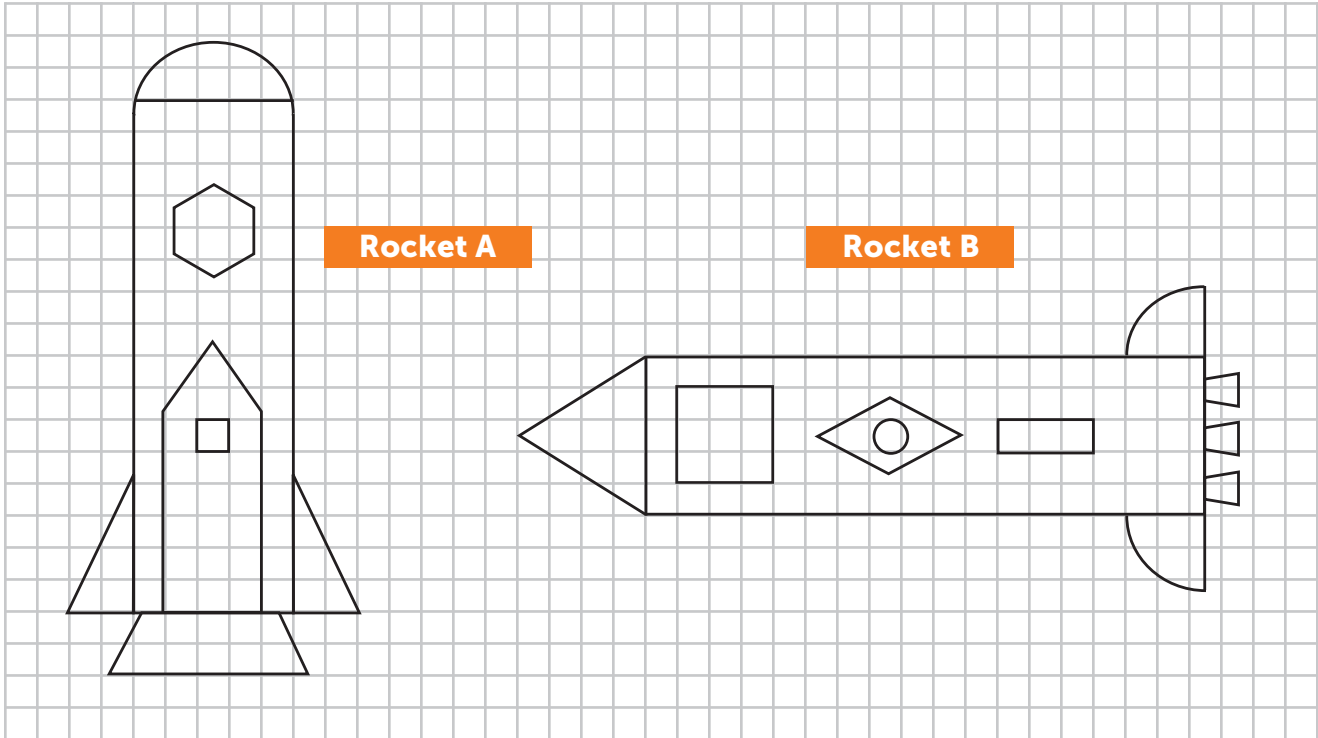
Responsible decision-making, relationship skills, self-awareness



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Name _____

FIND THE SHAPES IN A ROCKET



LEVEL A

Find a:

- circle
- square
- triangle
- rectangle

Try to find a:

- rhombus
- trapezoid

Now look for a:

- half-circle
- quarter-circle

LEVEL B

Find a:

- quadrilateral
- How many kinds of quadrilaterals can you find? _____

Find a:

- pentagon
- hexagon

Find a shape with:

- 3 angles
- 5 angles
- 6 angles

Name _____

PRACTICE PUNCTUATION

These story ideas about space are missing punctuation! Fill in the ends of the sentences with the correct marks.

period	.
exclamation point	!
question mark	?

Story Idea 1

A girl named Fei Fei lives in China _____

She wants to fly to the moon _____

How does she do it _____

Story Idea 2

Fei Fei makes a rocket _____

Where does she go _____

Can her brother come too _____

Story Idea 3

Wow _____ Fei Fei lands on the moon _____

She meets the Wing Lions _____

What other creatures does she find _____

Your Turn! Now pick one of the ideas and write a story.



HOW CAN I SOLVE PROBLEMS?

Work with friends. Cut out the cards. Choose a **skill** that will help you solve each **problem**.

PROBLEM CARD 1



Fei Fei made a rocket, but it does not work yet.

PROBLEM CARD 2



Fei Fei's brother, Chin, is acting silly. Fei Fei is mad at him.

PROBLEM CARD 3



Fei Fei misses her mom.

SKILL CARD

I can keep trying!

SKILL CARD

I can think up lots of ideas!

SKILL CARD

I can say how I feel!

SKILL CARD

I can count to 10 to calm down!

SKILL CARD

I can hug my family!

SKILL CARD

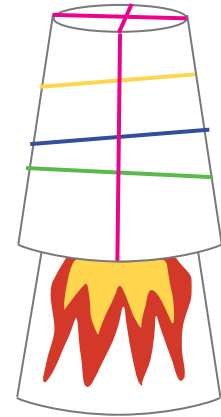
I can work together with friends!

OUT-OF-THIS-WORLD FAMILY FUN

In class, your child is exploring rockets and space travel! Extend the fun with these high-flying projects you can do together.

Launch a Rocket Ship

- 1. Prep** Get 2 plastic or paper cups and 5 rubber bands.
- 2. Design** Use markers or crayons to decorate rocket cups.
- 3. Build** Stretch one rubber band around the top and bottom of a cup, then stretch a second band to crisscross it. Stretch the remaining 3 bands around the bottom, middle, and top of cup.
- 4. Ready, Set...** Place the rocket cup on top of the second cup as if you are stacking them.
- 5. Blast Off!** Hold the rocket cup on the sides and pull down to stretch the rubber bands, then let it fly!



Crisscross the first two rubber bands on top. Use the others to hold the two bands in place.

Keep a Moon Journal

Track the phases of the moon by looking at the sky each night and sketching the shape you see.

Throw a Lunar Dance Party

Put on some fun music and break out your best slow-mo, down-low, zero-gravity dance moves.

Explore Space With Read-Aloud Books

- ★ *Fly Guy Presents: Space* by Tedd Arnold
- ★ *Mae Jemison (Rookie Biographies)* by Jodie Shepherd
- ★ *If You Were a Kid Docking at the International Space Station* by Josh Gregory
- ★ *A Full Moon Is Rising* by Marilyn Singer
- ★ *Ada Twist, Scientist* by Andrea Beaty
- ★ *Luciana* book set by Erin Teagan



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