

Shape Solvers

Students sketch and choose shapes that help solve simple design problems.

K-2-ETS1-2 "Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem."

NAME _____

DATE _____

Teacher: this page is run aloud. The script and answers are on the guide page.

1 SKETCH IT _____

roll

stack

poke

2 CHOOSE A SKETCH _____

a



b



c



HOW TO RUN THIS PAGE

Students make quick shape sketches for oral design problems, then choose sketches for new problems. Look for a drawing or choice that has a shape feature that fits the job.

Students never read directions on this sheet. Read each part's script aloud, then each prompt, giving think time before students mark.

PART 1 • SKETCH IT

SAY “Each box has a word. I will read the word. What shape could you sketch in each box to make something that can do that job? Draw one shape in each box.”

- Box 1 (beside roll): **circle**
- Box 2 (beside stack): **square**
- Box 3 (beside poke): **triangle**

PART 2 • CHOOSE A SKETCH

SAY “I will read each design problem and name the shapes. Which shape sketch fits the job? Circle your choice.”

ROW	SAY	STUDENTS CIRCLE
a	A designer needs something that can roll smoothly. I see a circle, a square, and a triangle. Which sketch would help solve this problem?	circle
b	A designer needs a shape that will fit a six-sided opening. I see a pentagon, a hexagon, and a square. Which sketch would help solve this problem?	hexagon
c	A designer needs to cover a long rectangular opening. I see a rectangle, a square, and a triangle. Which sketch would help solve this problem?	rectangle

WHAT TO ACCEPT

For Sketch It, accept a circle for roll, a square or rectangle for stack, and a triangle or diamond for poke. For Choose a Sketch, the answers are circle, hexagon, and rectangle.