

**BUILDING BLOCKS STUDENT WORKSHEET**

# Comparing costs when building a rocket

When you're preparing to build or make something, it's important to research and plan what you will do and how much money you will spend.

Comparing prices, features, benefits, and risks of materials and figuring out what is cost-effective – meaning it's a good value for the money you paid – can help you make the best choices for you and your project.

## Planning, building, and flying a test rocket

1. Read the "Working on a NASA rocket project" paragraph below.
2. Write down the flight number your teacher gave you in the table on the next page.
3. In the table on the next page, check the box next to the materials you will use for your test rocket.
4. Add up the costs of your materials and write the total in the table.
5. Using the straw rocket instructions your teacher gave you, build a rocket with the materials you chose.
6. Launch your rocket and record the flight distance in the table and on the sticky note your teacher gave you.
7. Write the flight number on the sticky note and post it on the bar graph on the board, based on the materials you used and how far your rocket flew.

## Working on a NASA rocket project

Congratulations! You've been picked by NASA to be part of a rocket research project. Your task is to build a test rocket. The materials you use may affect the distance the rocket travels. But some materials are more expensive than others. You might get hired by NASA for a full-time job if you can build a cheaper rocket that travels a long distance. Good luck!



Rocket and flight data for flight number: \_\_\_\_\_

Check the box next to the materials you will use for the rocket's body and fins and for the screws.

Rocket parts and materials	Pretend cost
<b>Body and fins</b>	
<input type="checkbox"/> Aluminum (copy paper)	\$2 million
<input type="checkbox"/> Titanium (construction paper)	\$4 million
<b>Screws</b>	
<input type="checkbox"/> Aluminum (masking tape)	\$1 million
<input type="checkbox"/> Titanium (clear tape)	\$2 million
Total cost of chosen materials	\$
Distance flown	