

# Inventing a Heat Engine

Name: \_\_\_\_\_

## Discuss & Invent

Discuss these questions and write your answers on a separate piece of paper.

1. Watch the video on the screen of the spinner and the candles. (The video is on Step 6.) Discuss what could be making that spinner move. Draw a picture to show what you think is going on.
2. Discuss: How could you use a paper heat spinner in a Chain Reaction machine? Draw a picture or describe what you could do.
3. Talk to your spinner. Figure out what sentence makes it spin the most. Why does that sentence work so well?
4. Discuss: The spinner spins in one direction when you lift the tower and the other direction when you lower it. Explain why that might be. Draw a picture to support your explanation.

## Experimental Station

5a. Find the heat source at this station. Describe it: \_\_\_\_\_

5b.	Put the spinner here:	Let about 20 seconds pass, then notice what the spinner is doing. Write down your observations. Draw a picture if you want.
	<b>Next to</b> the hot thing	After 20 seconds, I notice...
	<b>Above</b> the hot thing	After 20 seconds, I notice...
	<b>Below</b> the hot thing	After 20 seconds, I notice...

5c. Did you find any spots where the spinner doesn't turn—or turns just a little? Where?

\_\_\_\_\_

5d. Did you find a spot where the spinner turns steadily? Where? Does it turn at least 30 times?

\_\_\_\_\_

**mystery science**

How long did it take to travel across the country  
before cars and planes?