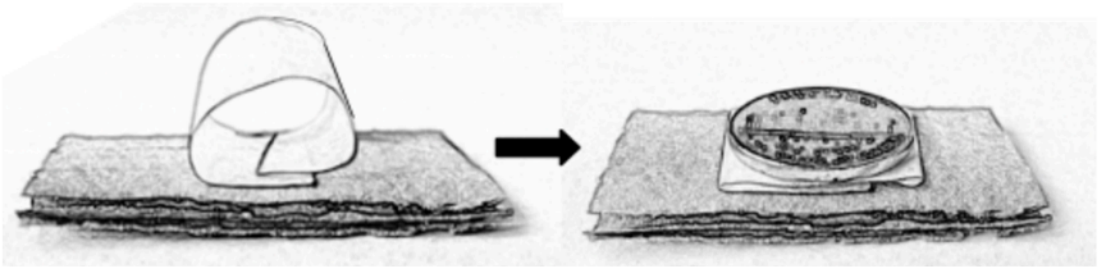
Try This!

Name: _____

Make some sliders — Construction Tips

- To get a slider moving, add some weight to the material you're testing. We suggest using pennies. How many pennies you use on each slider is up to you.



You can use a loop of tape to add a penny, like this.

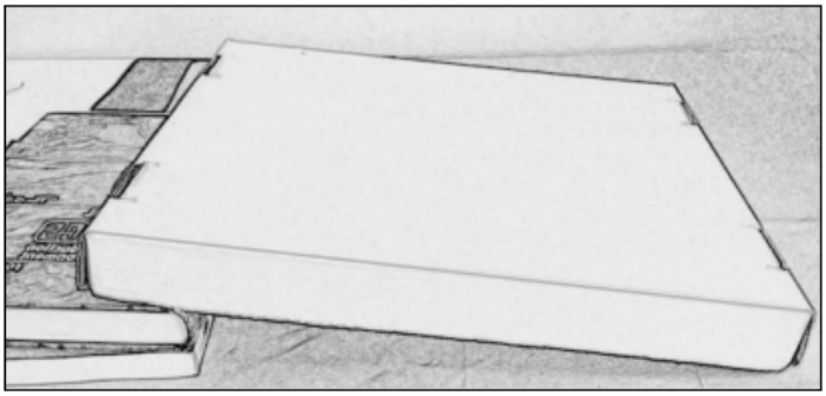
Or you can put a strip of tape over the pennies like this.

- You're testing the material, not the tape you use to hold the weight on. Make sure you don't cover the bottom of the slider with tape.

Make a slide

To make your cardboard into a slide, set one end on a stack of books and the other on the table.

You can change how steep a slide is by adding more books.



Try This! (page 2)

Name: _____

Experiment with your sliders and write down what you see.

1. What happens if I put all my sliders on the slide when it's flat, and then slowly raise one end of the slide?

Answer: _____

2. What happens if I race a cardboard slider with 5 pennies against a cardboard slider with no pennies at all?

Answer: _____

Come up with at least 3 questions and answers of your own.

3. What happens if I _____

Answer: _____

4. What happens if I _____

Answer: _____

5. What happens if I _____

Answer: _____

(If you have more questions, write on them on the back of this page.)

If you get stuck, think about:

- how many pennies will you put on each slider?
- how you will start the sliders moving? (by setting them on a steep slide? by raising the slide?)
- how steep you will make your slide?
- how many sliders you will test at a time?
- how will you decide which slider has the least friction?

Friction Investigation Worksheet

Name: _____

1. **Experiment to find the answer to this question:** Which materials have the MOST friction and which materials have the LEAST friction?

2. Method:

We built sliders like this: (draw a picture of a slider)	**We set up each trial like this:** (draw your slide)

3. Describe what you will do in each trial:

- How will you start your sliders sliding? _____

  _____

- How many sliders will you test together? _____

- How will you decide which slider has the least friction? _____

  _____

- How will you decide which has the most friction? _____

  _____

Friction Investigation Worksheet

Name: _____

4. Data Collection:

Complete four trials of your experiment.

Trials	Observations / Measurements
In each box below, write down the materials you tested.	Write down observations or measurements for each trial. For example, *"We observed that the cardboard began sliding first.."*
Trial 1:	
Trial 2:	
Trial 3:	
Trial 4:	

Friction Investigation Worksheet

Name: _____

5. Claims and Evidence

Our claim: We think _____ has the **most** friction.
(material)

Evidence that supports this claim: _____

_____

Our claim: We think _____ has the **least** friction.
(material)

Evidence that supports this claim: _____

_____

Our claim: We think _____ (list materials)

have more friction than _____ (list materials).

Evidence that supports this claim: _____

_____

6. Additional Investigation

Next time, we want to try _____

_____

because_____

_____