

Name: Sample

Date: \_\_\_\_\_

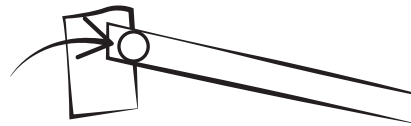
## Lesson 9a Science Journal

1. Which ramp height would be most helpful to model for the fastest collision? Mark your choice with an X.

     7 cm     14 cm     21 cm  X   28 cm

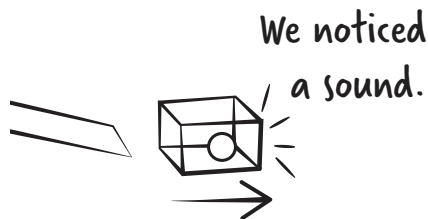
2. Develop a model for each stage of the collision.

Before the Collision



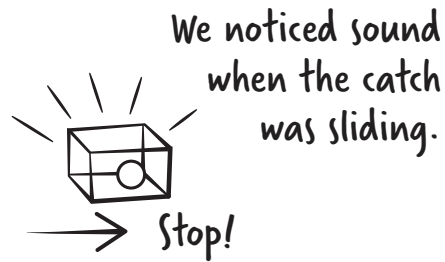
We transferred energy to the ball by placing it high on the ramp.

During the Collision



The force from the collision pushed the catch, transferring energy from the ball bearing to the catch.

## After the Collision



The catch slid, then stopped.  
We noticed there was motion,  
then a sound and less motion.

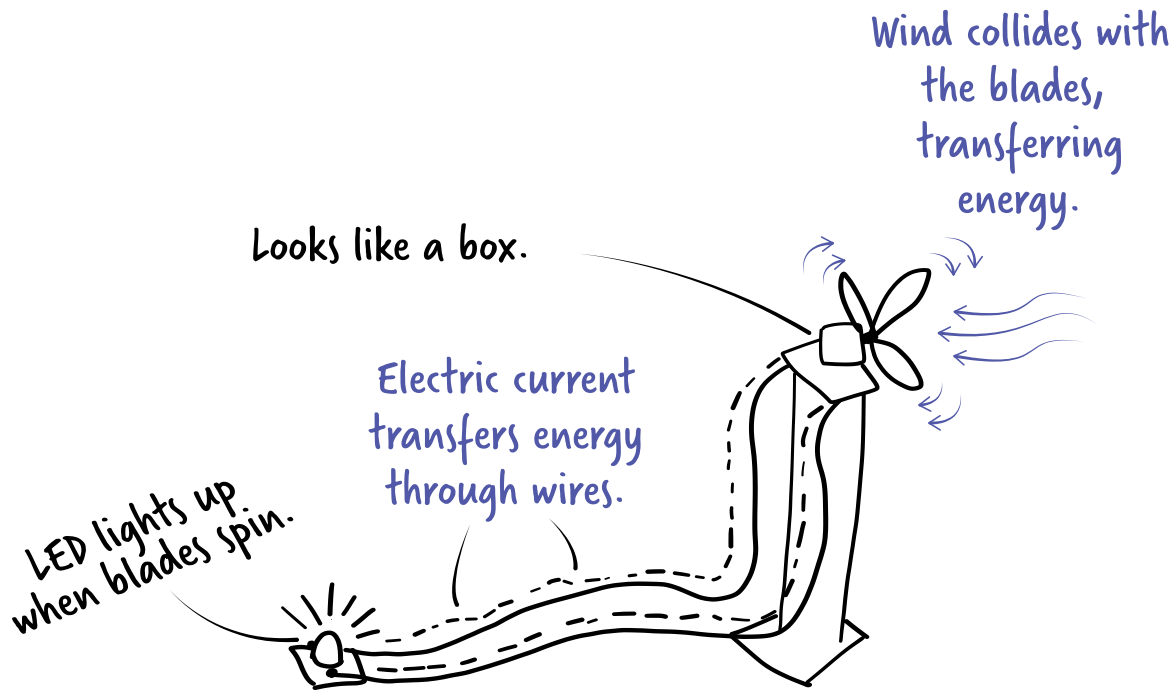
3. Fill in the blanks to update the anchor chart.

### Energy

- Energy can transfer between objects through collisions, causing changes in their motion.
- Transferring more energy to an object can make it move faster.
- Faster - moving objects have more energy to transfer to other objects.

4. Update the anchor model and explanation.

How a Windmill Harnesses the Wind



In the windmill system, wind collides with the blades, which transfers energy

to something that looks like a box.

An electric current transfers energy

through the wires and turns on the light.

When the wind blows harder, more energy is transferred to the blades.