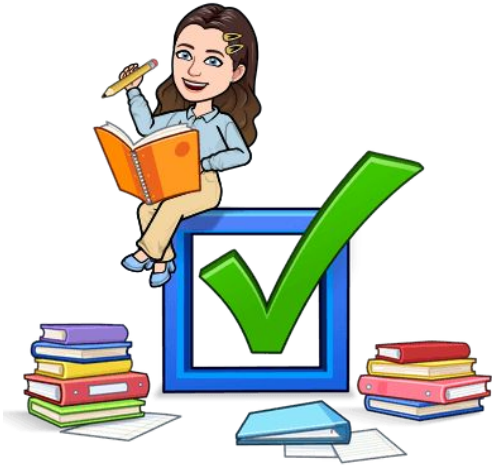




Review



- What is a force?
 - What are some examples of a force?
- What is a machine?
 - What can a machine do for us?
Example?
- Are all machines super complex?

Day 2- Learning Goal: Identify the parts of various mechanisms and describe the purpose of each part

Success Criteria:

We can...

Explain how a wheel and axle works.

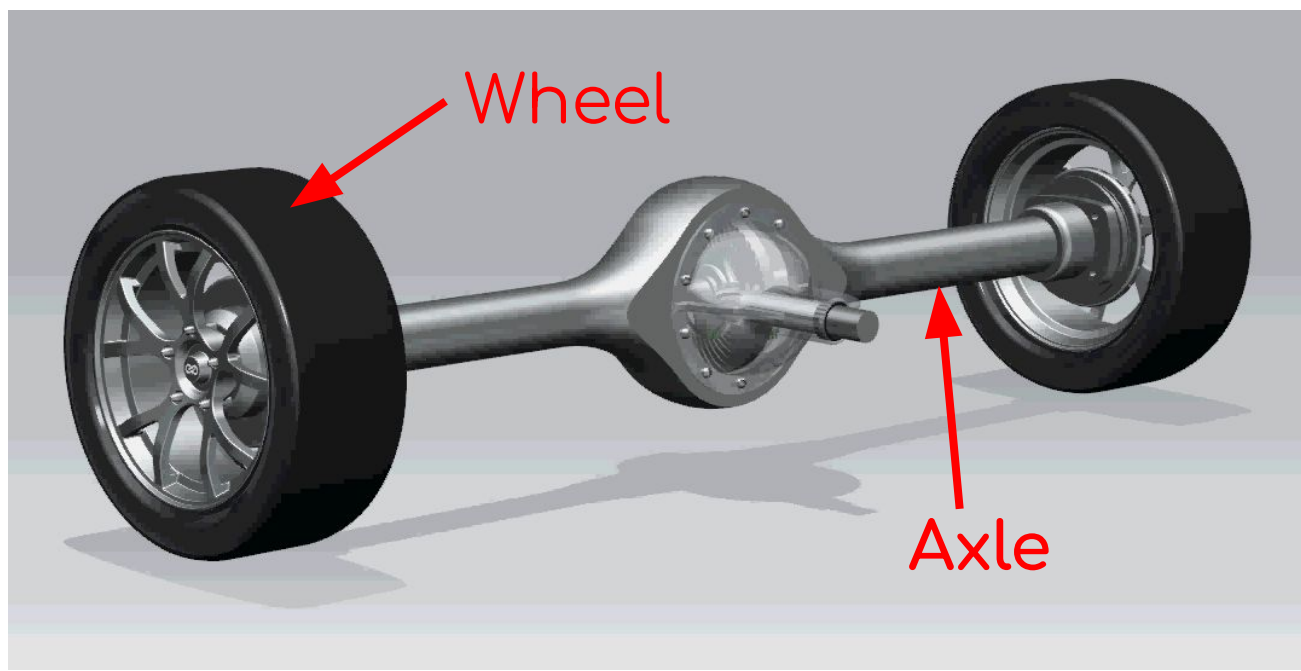




What do you see? What is each object?

What is the function of each?

How can we use these together?



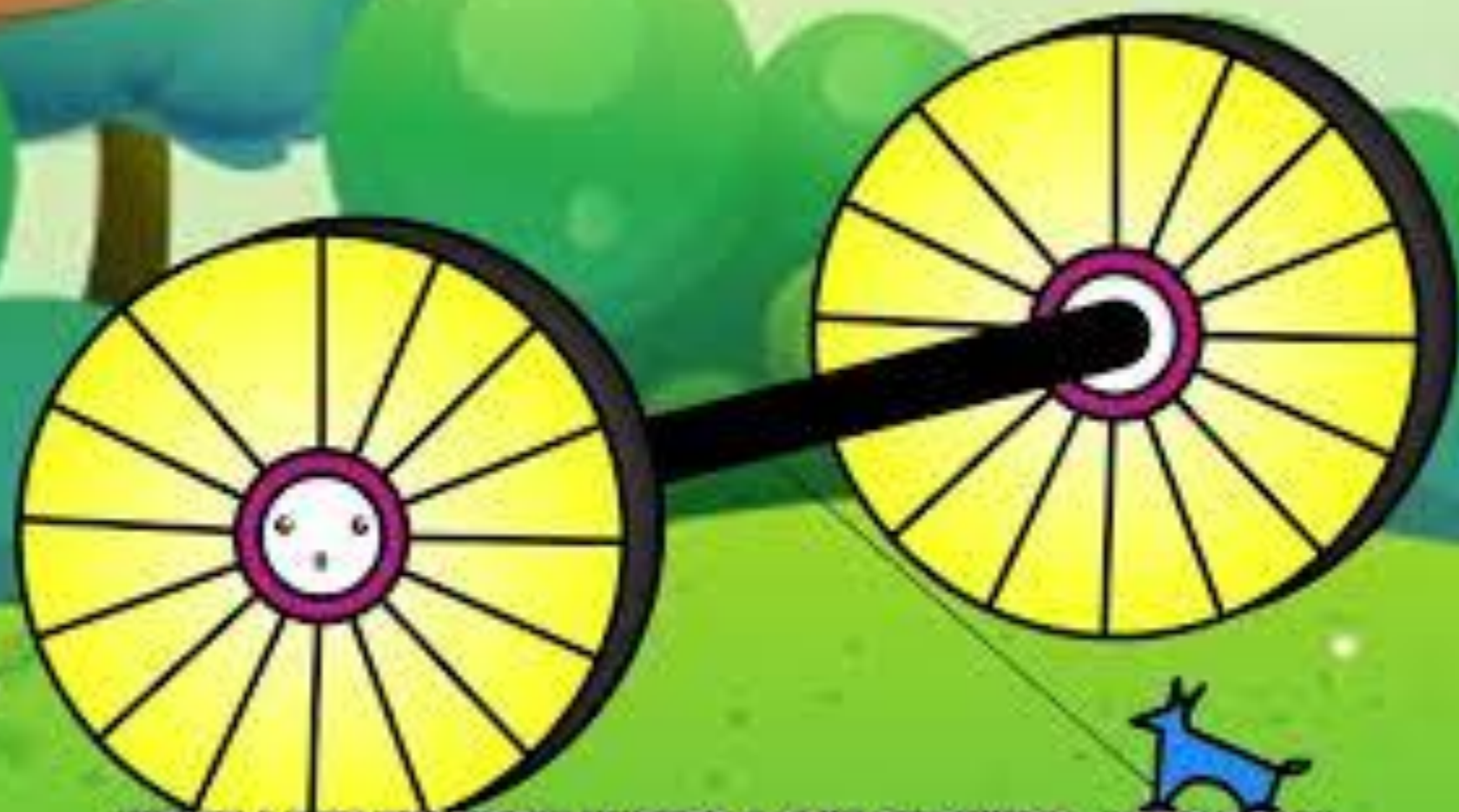
An **axle** is long thin cylinder, such as a screw or pin, that goes through the centre of the wheel and **allows it to spin** around the axle.

A **wheel** is a circular frame of hard material that may be solid, partly solid, or spoked and that is **capable of turning on an axle**.

What is the “wheel” of a fidget spinner? Where is the axle?

How does a fidget spinner spin?





WE'RE A DOG THAT REALLY PUTS A SPIN ON THINGS. LET'S ROLL!

MentiMeter

1. Think of some things that use wheels and axles or that you think use wheels and axles. **HINT: Research using the internet.**
2. Write your answers down in the mentimeter.
3. Go to www.menti.com
4. Enter the code: **2449 7992**
5. Use the Link Posted:
<https://www.menti.com/al39ketr998k>

Mini Experiment

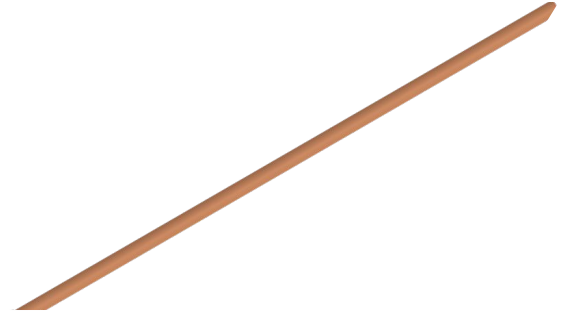
Materials:



2 chairs



Masking tape



Broom handle



Rope



Water Jug



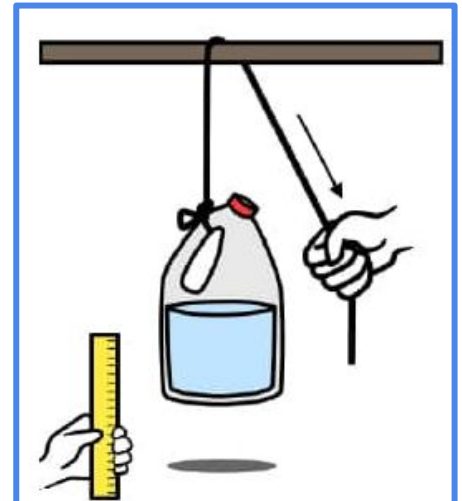
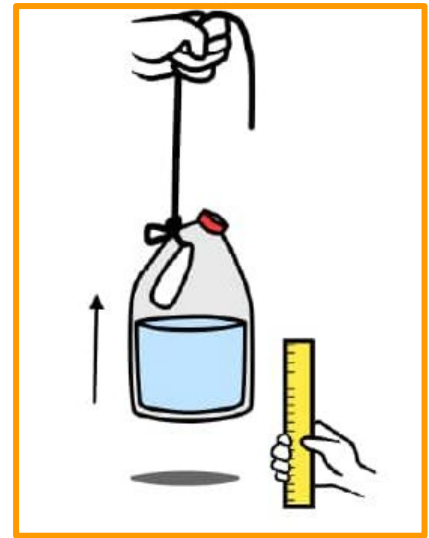
Ruler

Set Up



Instructions:

1. Place the two chairs 50 cm apart.
2. Use the duct tape to attach the broom handle to the chair seats.
3. Have a partner hold a ruler on the floor beside the jug. Stand the ruler up, as shown. Pull the rope to lift the jug 30 cm.
4. Put the jug under the broom handle and place the rope over the broom handle as shown. Pull the rope down to lift the jug 30 cm.



Which way was
easier to lift?



What kind of machine
do you think this was?

Is this machine simple
or complex?

Day 2- Learning Goal: Identify the parts of various mechanisms and describe the purpose of each part

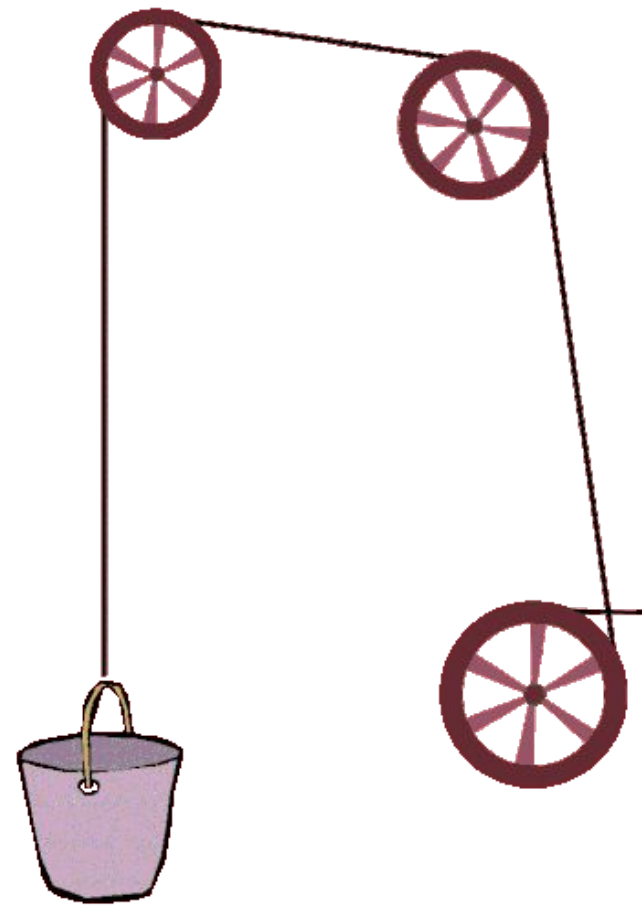
Success Criteria:

We can...

- Explain how a wheel and axle works.
- Make a simple machine.**
- Explain how a pulley works and makes moving loads easier.
- Label the parts of a pulley.



Pulleys



Day 2- Learning Goal: Identify the parts of various mechanisms and describe the purpose of each part

Success Criteria:

We can...

- Explain how a wheel and axle works.
- Make a simple machine.
- Explain how a pulley works and makes moving loads easier.
- Label the parts of a pulley.



What do you notice about this wheel?

What is a Pulley?

A pulley is a simple machine that uses a **wheel that has a groove in it.**

A rope or cable **fits into** the groove.

The wheel helps the rope move.



What does the wheel sit on?

How does a pulley
work? Steps to
use?

How does a pulley work?

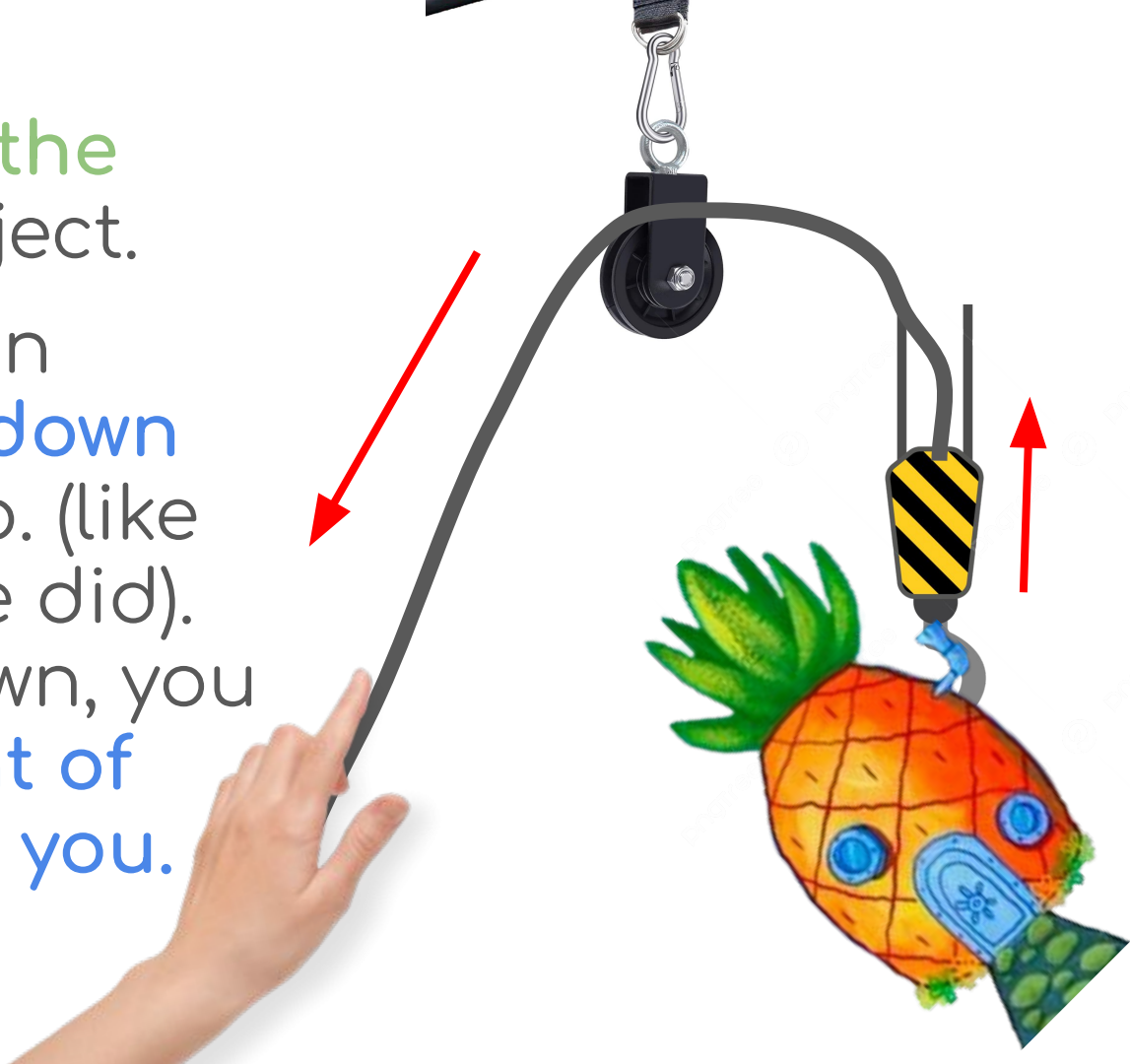
A pulley can be placed **placed above a heavy object** that you want to lift.

Hooked onto a hook or tied to the rope.



You **pull down on the rope** to lift the object.

It is **easier** to lift an object by **pulling down** than by pulling up. (like the experiment we did). When you pull down, you can use the **weight of your body to help you**.



- Make it easier to lift a load or **change the direction** of a force.

What is a **load**? Does the load give off a force?

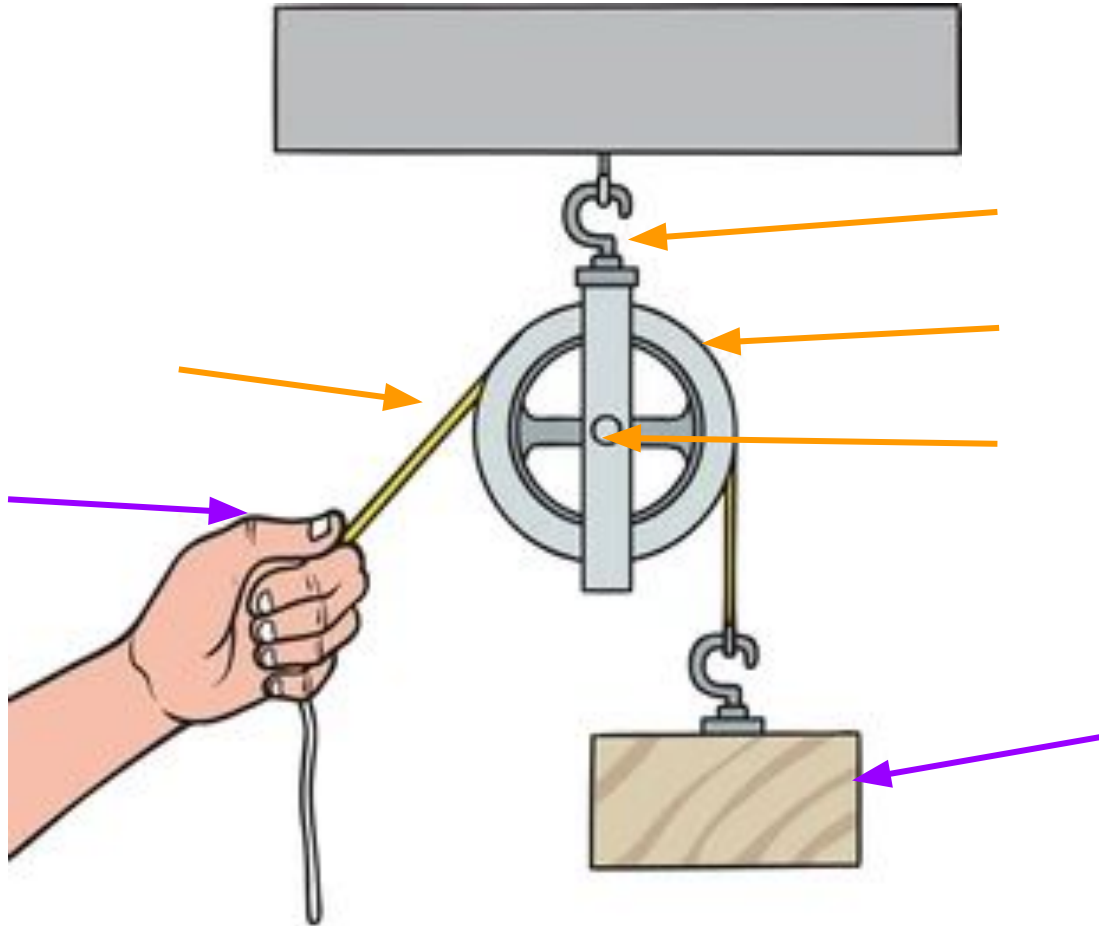
Day 2- Learning Goal: Identify the parts of various mechanisms and describe the purpose of each part

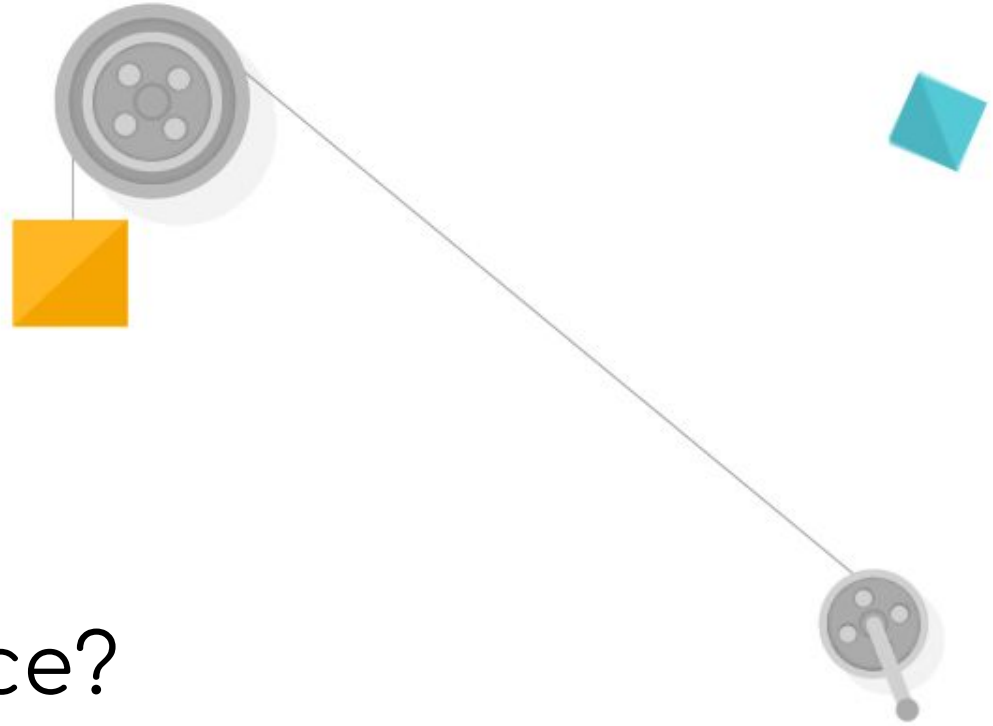
Success Criteria:

We can...

- Explain how a wheel and axle works.
- Make a simple machine.
- Explain how a pulley works and makes moving loads easier.
- Label the parts of a pulley.

Parts Of A Pulley





Where is the force?
Where is the load?
Where is the pulley?

PULLEYS!

Sci
The
Boost



Google Form - Pulleys Part 1

<https://forms.gle/EoHMcaumgbSFCEy7>