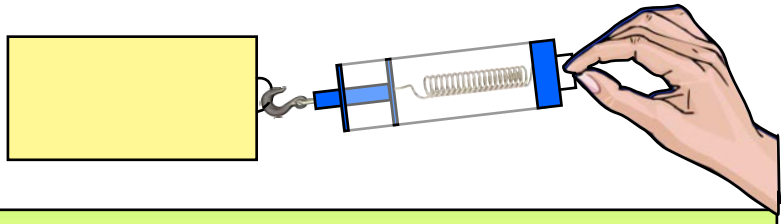
Forces In Action — Worksheet 2A

Name: _____ **Date:** _____

Today you will be doing an experiment to find out which surface causes the most friction and makes it the most difficult to move an object. Follow the instructions below to carry out your experiment and find out!

You will need:

- A weighted container
- A forcemeter
- Three different surfaces



Which three surfaces will you be testing?

What you will need to do:

- Place the weighted container on the surface you are testing
- Attach the forcemeter to the container
- Start pulling the forcemeter until the container starts moving
- Take the reading on the forcemeter at the point the container starts moving
- Record the results and repeat for each surface you are testing

How to make this a fair test:

- Use the same weighted container each time
- Use the same forcemeter each time
- Only change the surface you are testing

Results

Surface	Force in newtons (N)

Conclusion:

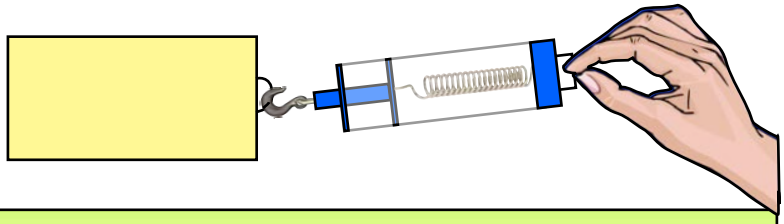
- The hardest surface to move the container on was _____.
- The easiest surface to move the container on was _____.
- Rough surfaces have more friction than _____ surfaces.
- Smooth surfaces make it easier to move objects as they have less _____.

Forces In Action — Worksheet 2B

Name: _____ **Date:** _____

Today you will be doing an experiment to find out which surface causes the most friction and makes it the most difficult to move an object. Plan your experiment below and carry out your experiment and find out!

You will need:



Which three surfaces will you be testing?

What you will need to do:

How to make this a fair test:

Results

Surface	Force in newtons (N)

Conclusion:

Name: _____ Date: _____

My Friction Experiment

What are you trying to find out?

What equipment and materials will you need?

How will you carry out your experiment?

Diagram:

How will you make it a fair test?

What do you predict will happen?

Results:

Conclusion:

Name: _____ Date: _____

The Friction Tilting Experiment

Which three surfaces will you test?

Surface 1: _____

What angle did the rubber fall off at?

Diagram:

Surface 2: _____

What angle did the rubber fall off at?

Diagram:

Surface 3: _____

What angle did the rubber fall off at?

Diagram:

Conclusion: What did you find out from your experiment?

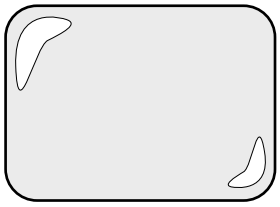
Name: _____ Date: _____

Can you test the friction of a surface by tilting it?

Three different surfaces

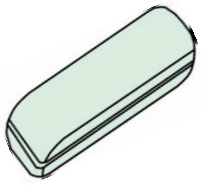
book

mirror

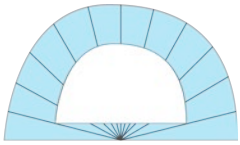


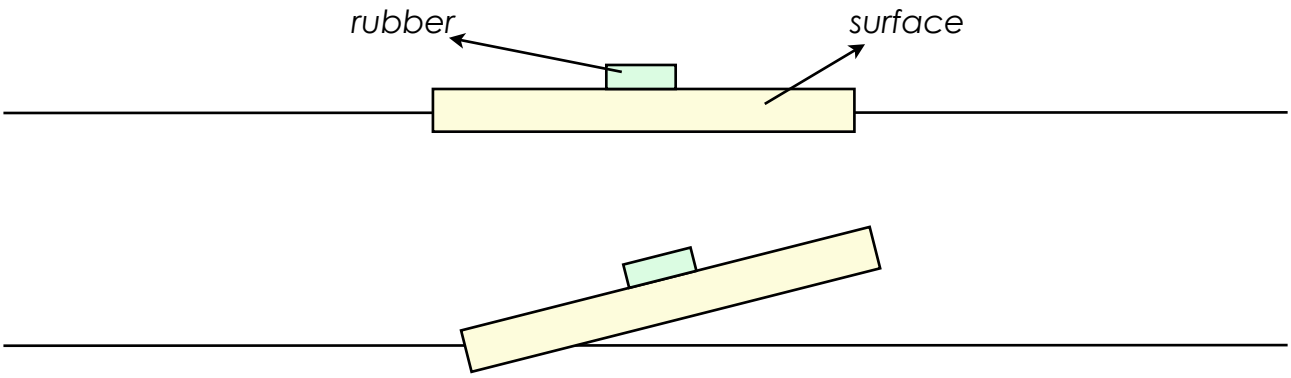
mini whiteboard

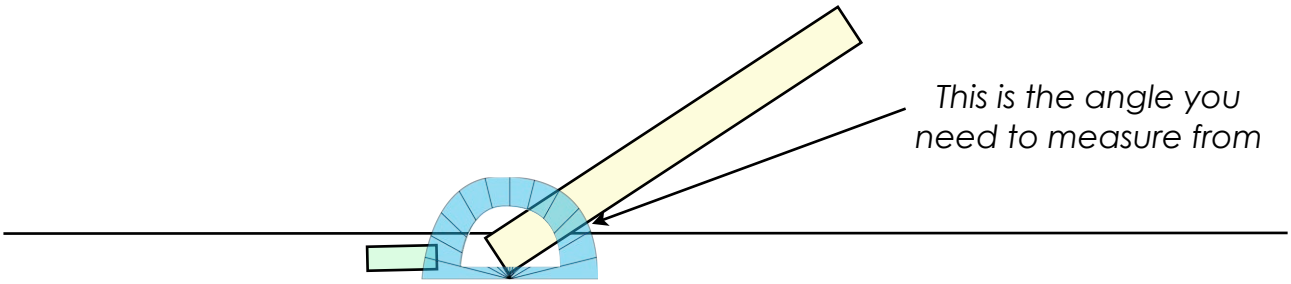
rubber



protractor







Which three surfaces will you test?

How will you make it a fair test?

What do you predict will happen?