

Name \_\_\_\_\_



UNIT PROJECT

## Balanced Forces

Think about forces that you encounter on a daily basis. It could be something simple, like pushing a door open at your school. It could also be something more fun, like kicking a soccer ball. For this project, you will work in teams to explore how to keep an object at rest when forces are changing all around it.

Think about how objects respond to force. Write a question that you will investigate as you consider how to keep your object at rest.

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### Materials

Think about how you will design a way to keep an object at rest when forces are changing around it. What materials will you need?

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To come up with your design, start by thinking about the object that will be the center of your observation. Then, think about the forces that change around it. Which object will you choose?

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## Research and Plan

Make a plan for the research you will need to do and how you will create your model. As you make your plan, consider the following:

- the difference between balanced and unbalanced forces
- how balanced and unbalanced forces are created
- whether each force is strong or weak

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Review your design. Are there any modifications you need to make?

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### Analyze Your Result

Look for patterns in your designs and data. Make two observations about forces.

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### Restate Your Question

Write the question you investigated.

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### Claims, Evidence, and Reasoning

Make a claim that answers your question.

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Review your design. What evidence from your design supports your claim?

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