

Balloon Hovercraft

Have you ever seen a hovercraft and wondered how they worked? Well, today is your lucky day! We are going to design our own hovercraft, using everyday items! This will help you learn about different types of forces.

Materials Needed:

- **CD** (old CD that you don't care about damaging)
- **Pop-Top Bottle Lid** (found on sports bottles)
- **Balloon** (one that you can blow up and wrap around top)
- **Hot Glue Gun** (you can attempt with Elmer's Glue or tape)

Scientific Method:

Step 1: _____

Write any observations that you see about our materials.

Step 2: _____

What questions do you have about hovercrafts or forces?

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Step 3: _____

What do you think causes the hovercraft to move so smoothly?

Step 4: _____

- Use the hot glue gun to connect the pop-top bottle lid to the CD. Make sure that you keep this lid centered to the CD as much as possible.
- Once the hot glue has cooled and dried, press the sports drink lid down so that the valve is shut inside the lid.
- Blow up a balloon and then attach it to the pop-top bottle lid.
 - As the valve is closed, the air should not rush out of the balloon whilst attached to the lid.
- Open the lid valve and give your balloon hovercraft a little push!

Step 5: _____ & _____

What happened with your hovercraft after you opened the valve? _____

What force(s) were acting on the hovercraft before the valve was opened? _____

Why do you think the hovercraft was able to move around smoothly once the valve was opened?

Step 6: _____

Make sure you share your data with the teacher/group and check out what happened to other people's shadows! We always like to compare our results with others, just in case something different happens.