

CD Hover Craft

Objective: Can you make a CD float on air?

Supplies:

CD

Bottle Top Cap

Balloons

Hot Glue & Glue Gun

Tape

Procedure/Activities:

- With an adult's help, carefully use hot glue to glue the bottom of the cap to the surface of the CD, completely covering the CD's hole.
 - To further ensure that no air escapes your glue seal, and that the cap is secure, you can also apply tape around the cap and CD surface.
- Carefully place a balloon over the spout on the cap. With the balloon still deflated, try pushing it across the table. What happens? Why do you think it moves that way?
- With the balloon still attached, flip your hover craft over so that the open hold is exposed. Carefully blow through the hole to inflate the balloon. Pinch the neck of the balloon and place your hover craft down. Let go of the neck. What happens? Why do you think it moves that way?
 - If you have trouble inflating your balloon through the hole in the CD, you can carefully remove the balloon, inflate it, and replace it back on the cap, while carefully holding the neck of the balloon closed.
- Blow up the balloon again, and try pushing the hover across the table. What happens? Why do you think it moves that way?
- Try pushing your hover on different surfaces. Does the surface make a difference in how the hover works?

How it works:

“Hovercrafts work by using air to lift a vehicle off of the ground. The CD Hovercraft is no exception. As the balloon deflates, it is releasing air through the sports bottle cap and beneath the CD. Because of the shape, smoothness, and weight distribution of the CD, the releasing air creates a cushion of air between the CD and the surface. This cushion of air reduces the friction between the CD and surface and allows your hovercraft to move more freely. “

- From SteveSpanglerScience.com
(<http://www.stevespanglerscience.com/lab/experiments/cd-hovercraft-sick-science#sthash.3B12KOWX.dpuf>)