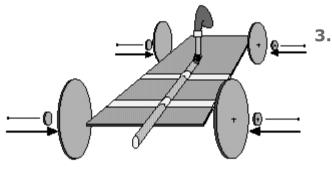
## How to Build a Rocket Car

## Lay out your pattern Hubcaps © Ø © © on a Styrofoam tray. Rectangle You need 1 rectangle, 4 wheels, Wheels and 4 hubcaps. Use a compass to draw the wheels. 2. Blow up the balloon and let the air out. Tape the balloon to the short end of a flexible straw and then tape the straw to the rectangle.

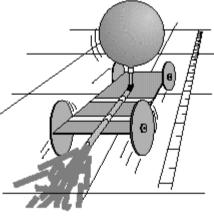


Push pins through the hubcaps into the wheels and then into the edges of the rectangle.

4.

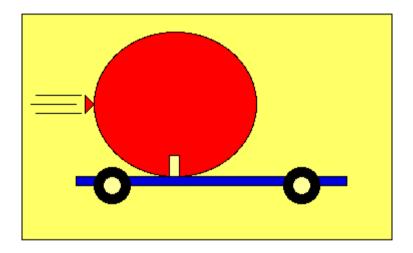
1.

Blow up the balloon through the straw. Squeeze the end of the straw. Place the car on floor and let it go!



## **Balloon Racers**

Balloon racers rely on Newton's <u>Third Law of Motion</u>. As the air rushes backward out of the balloon it pushes the car forward in the opposite direction with an equal force. Your job is to make the most of this force!



The rules to this activity are simple:

- The car must be powered by balloons.
- You can build the car out of anything.
- It must have at least three wheels. Wheels are defined as anything that is round and goes around.
- The wheels cannot be wheels from a toy car. They must be made out of something that was not originally meant to be used as wheels.
- The car may not leave the ground.
- The car must be capable of travelling at least 5 meters.