



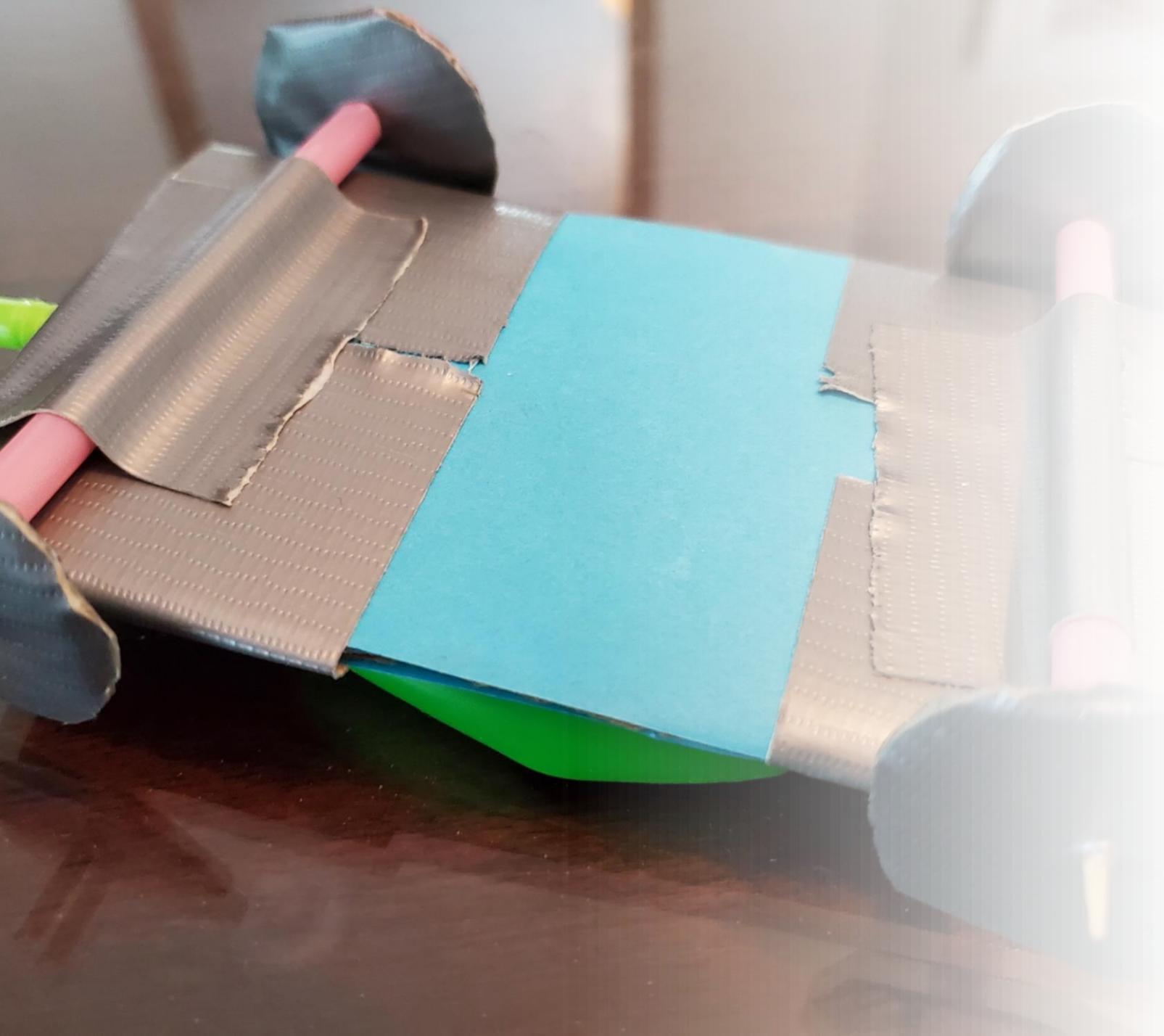
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Saturday STEAM

Balloon Powered Cars

With Tammy

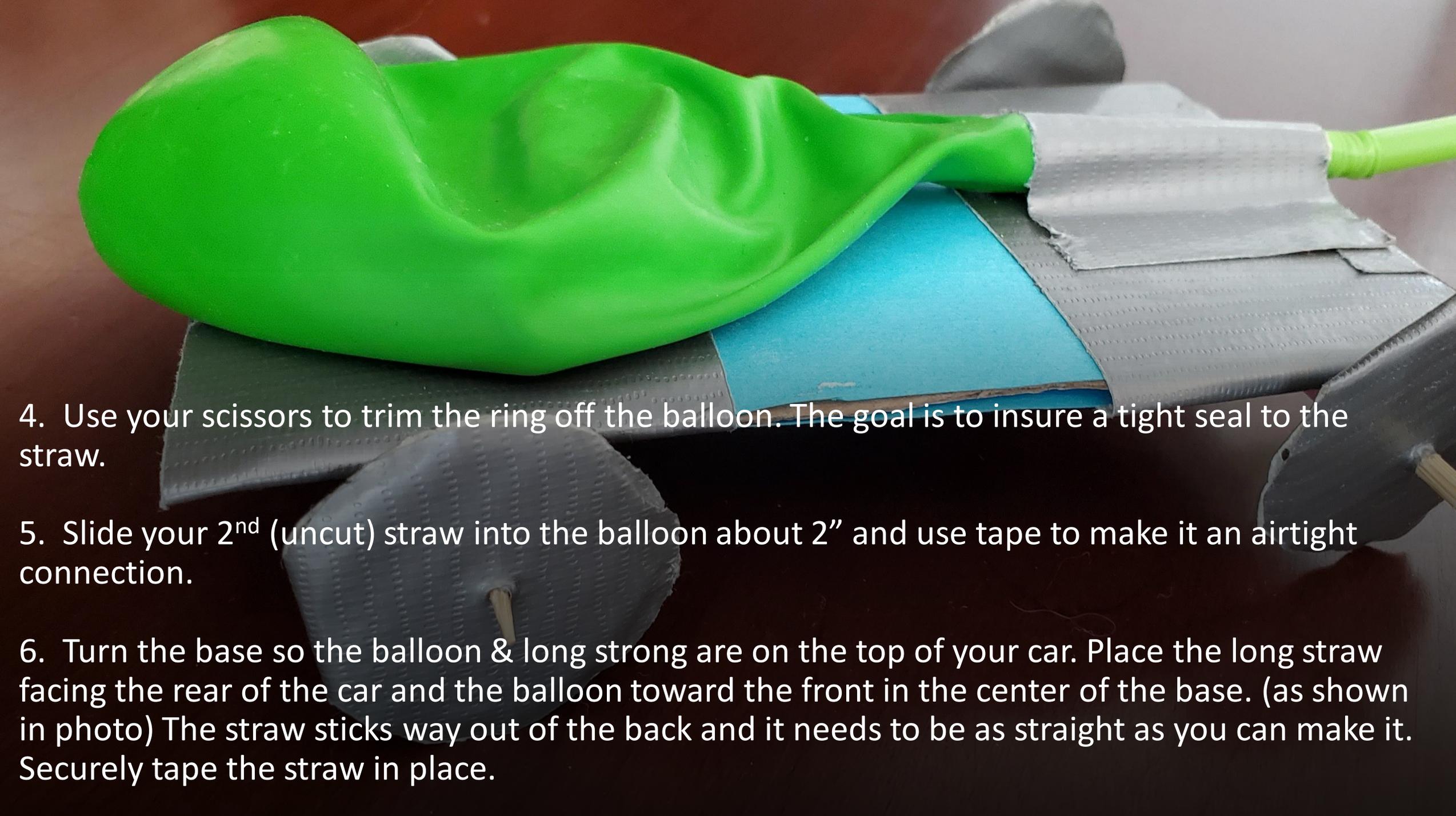
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- **Materials Needed:**
 - 1 balloon (10" or so)
 - Cardboard
 - 1 wooden skewer or dowel
 - 2 straws
 - Duct tape
 - Rulers
 - scissors



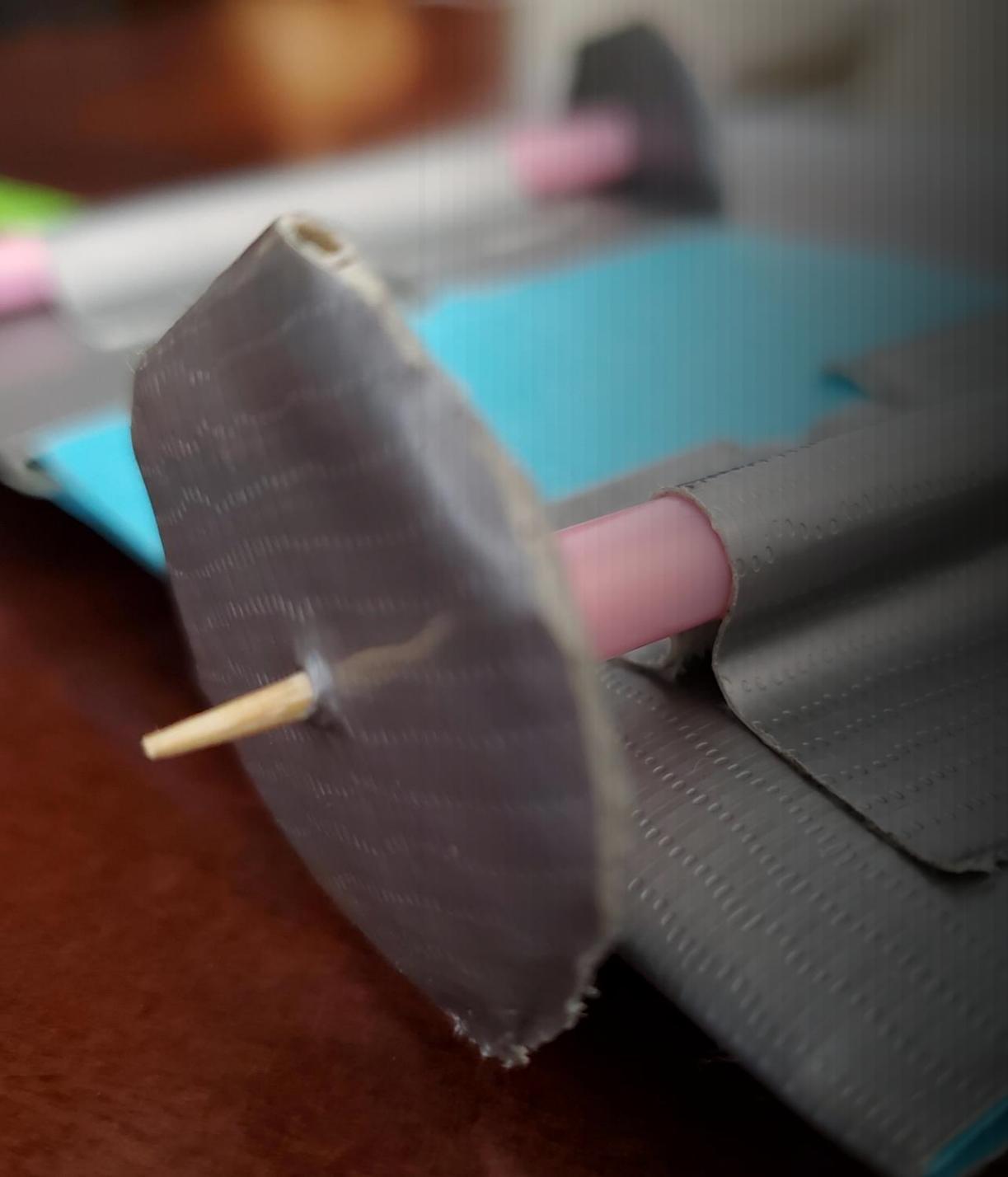
1. Measure and cut two, 3" pieces from one of the straws. These pieces will hold the axles of your car.

2. Cut out your base material from your cardboard so that it measures about 3 x 6".

3. Tape the two straws you just cut to the underside of the base. Since they hold the axles, the straws need to be as parallel to each other and as perpendicular to the centerline of the base as possible.



4. Use your scissors to trim the ring off the balloon. The goal is to insure a tight seal to the straw.
5. Slide your 2nd (uncut) straw into the balloon about 2" and use tape to make it an airtight connection.
6. Turn the base so the balloon & long strong are on the top of your car. Place the long straw facing the rear of the car and the balloon toward the front in the center of the base. (as shown in photo) The straw sticks way out of the back and it needs to be as straight as you can make it. Securely tape the straw in place.



7. Measure and cut two 4" pieces of skewer or dowel. These are the axles for your car. Slide the new axles into the straws on the base.

8. Cut four circles for your wheels out of cardboard. Make them the same size and as evenly round as you can.

9. Use the pointy end of the skewer to poke a small hole through the very center of each wheel. Attach your wheels to your axels.

Power up your car!!!

Go to a hard surface and fuel your racer with potential energy by inflating the balloon.

Block or pinch the straw as you set up on the start point and release it when you're ready to roll.

Potential energy converts to kinetic energy, Newton's Third Law of Motion kicks in, and your racer screams down the track!

