

Lesson: Lego Egg Racers

Objective: Kids will create their own egg racer and build their own lego car.

Instructions: Kids can work alone or with friends. Kids will color their plastic egg that they then will fit into a lego car that they created. They can race each other using rain gutters or any kind of incline slope. Encourage kids to test different models of a car (big wheels vs small wheels, long vs short, etc)

Materials: Legos, Plastic Eggs, Rain Gutters (bought from Lowes or Home Depot)

Step 1: Engage

Hook em! The activity should be presented in a creative and engaging way to pique the interests of the kids. Instructions and objectives should be explained. Kids can share any knowledge or thoughts about the subject.

Suggestions to get them interested

- Who are some famous racers?
- What makes a car fast?
- How can you make a lego car fast without an engine?
- Book: "Poem-Mobiles"
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Talking Points: Auto racing began in France in 1895 and is now one of the world's most popular spectator sports. One of the oldest existing purpose-built automobile racing circuits in the United States, still in use, is the 2.5-mile-long (4.0 km) Indianapolis Motor Speedway in Speedway, Indiana. It is the largest capacity sports venue of any variety worldwide, with a top capacity of some 257,000+ seated spectators.

Tips for Building Car (let kids experiment first): Weight: Two equally powerful engines, with two equally efficient power trains, and unequal weights will have different top speeds because of the difference in weight. Lighter weights translate into more speed. Aerodynamics: Air causes greater resistance at increasing speed. The faster you go, the more air you are moving in a given amount of time. Air resistance to automobiles increases progressively with speed. Aerodynamic design that reduces wind resistance increases car speed.

Step 2: Explore

Hands on! Kids can investigate, explore, experiment, play and learn.

Instructors should be asking open-ended questions to expand learning.

Suggestions for Open Ended Questions

- So what are you working on?
- Are you finding anything difficult?
- How did you come up with your idea?
- What will make your car go fast?
- How is your egg racer protected in your car?

Step 3: Evaluate

Reflect! Kids can present their finished projects or share what they learned. Instructors should be asking kids questions that reflect on the activity. Did you stick to your original plan? Did anything surprise you? Is there anything you would have changed?

Suggestions for Evaluation

- Have kids race their cars against each other. Time them to see what the fastest car is.

