



On your mark, get set, let's go!



Fantastic First Grade LEGO Balloon-Powered Car

Build 2 Lego cars and race them using balloons. Post a picture or video on [Seesaw](#). Explain the different things you observed about your car design and the effect it had on the car's movement. *On your mark, get set, go!*

Instructions:

1. Create and build 2 LEGO cars with a small square area to stick a balloon through.
2. Designate a starting line and a finish line. Use tape for this or chalk if outside.
3. Blow up the balloon and hold the end shut.
4. Place the balloon in the small square area of the car and place on the ground.
5. Students will let go of the balloons and the LEGO cars should travel forward.
6. Design several different types of Lego cars to explore what type of car can move the farthest.

Critical Thinking:

7. Do tall Lego cars work better?
8. Would a Lego car that is low to the ground move farther when the balloon is let go?
9. What happens to the car when the air from the balloon applies force?

[Newton's first law](#) states that "every object will remain at rest or in uniform motion in a straight line unless compelled to change its state by the action of an external force." Click on the blue words to learn more about Newtons First Law 😊

10. How many wheels work best for the Lego car?
11. When you blow the balloon bigger what happens to the car?
12. How many wheels work best for the Lego car to go farther?
13. Does where you placed the balloon impact the cars movement?
14. When you add extra Legos to the car does the car travel farther?
15. What happened if the car is raced on a carpet?
16. What happened if the car is raced on a hard surface?
17. When you blow less air into the balloon what happens to the car?
18. How far did your car travel? Measure the distance from the starting line to the finish line.
19. How much time did it take for the car to reach the finish line? Time the race and see how long it took the car from the starting line to the finish line.

