

Science Aligned

THEME PARK



VIRTUAL Field trip

SCIENCE ALIGNED

- Standards-aligned content
- Science-themed concepts
- Inspires natural curiosity

The Physics Behind Roller Coasters

Watch the video to find out how roller coasters work!



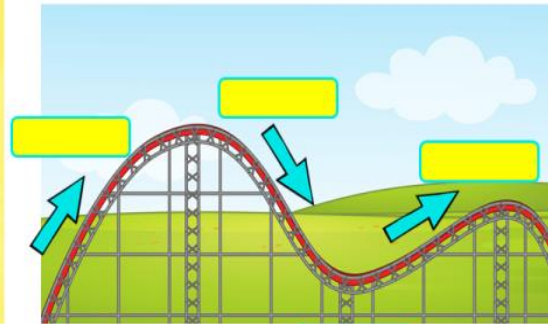
Label the forces that set the roller coaster car in motion by dragging the yellow boxes to the correct space. Then, complete the sentence at the bottom by doing the same.

friction

gravity

speed

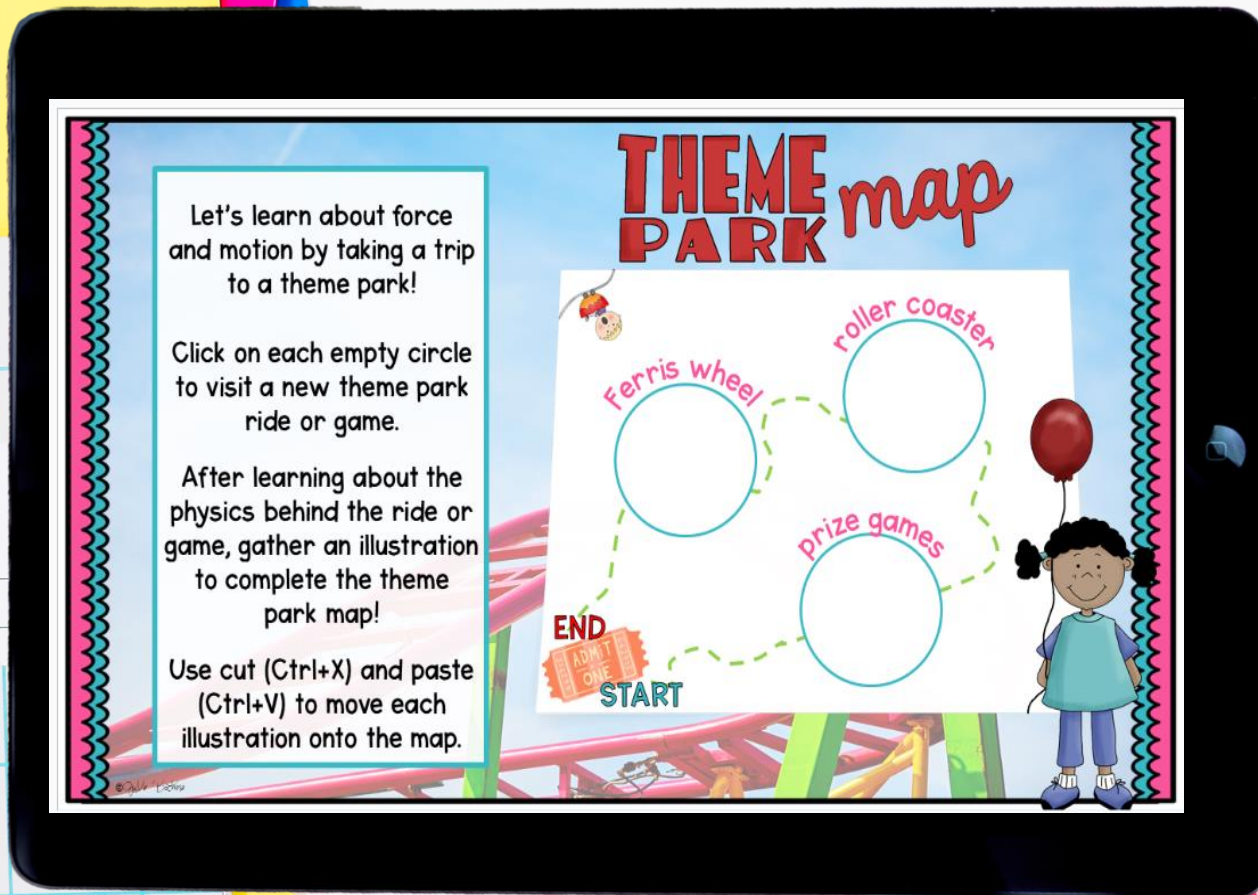
a chain



The force that causes roller coasters to eventually come to a stop is called, " ." Without a force acting on the roller coaster car, it would stay in motion. This is an example of Newton's Law.

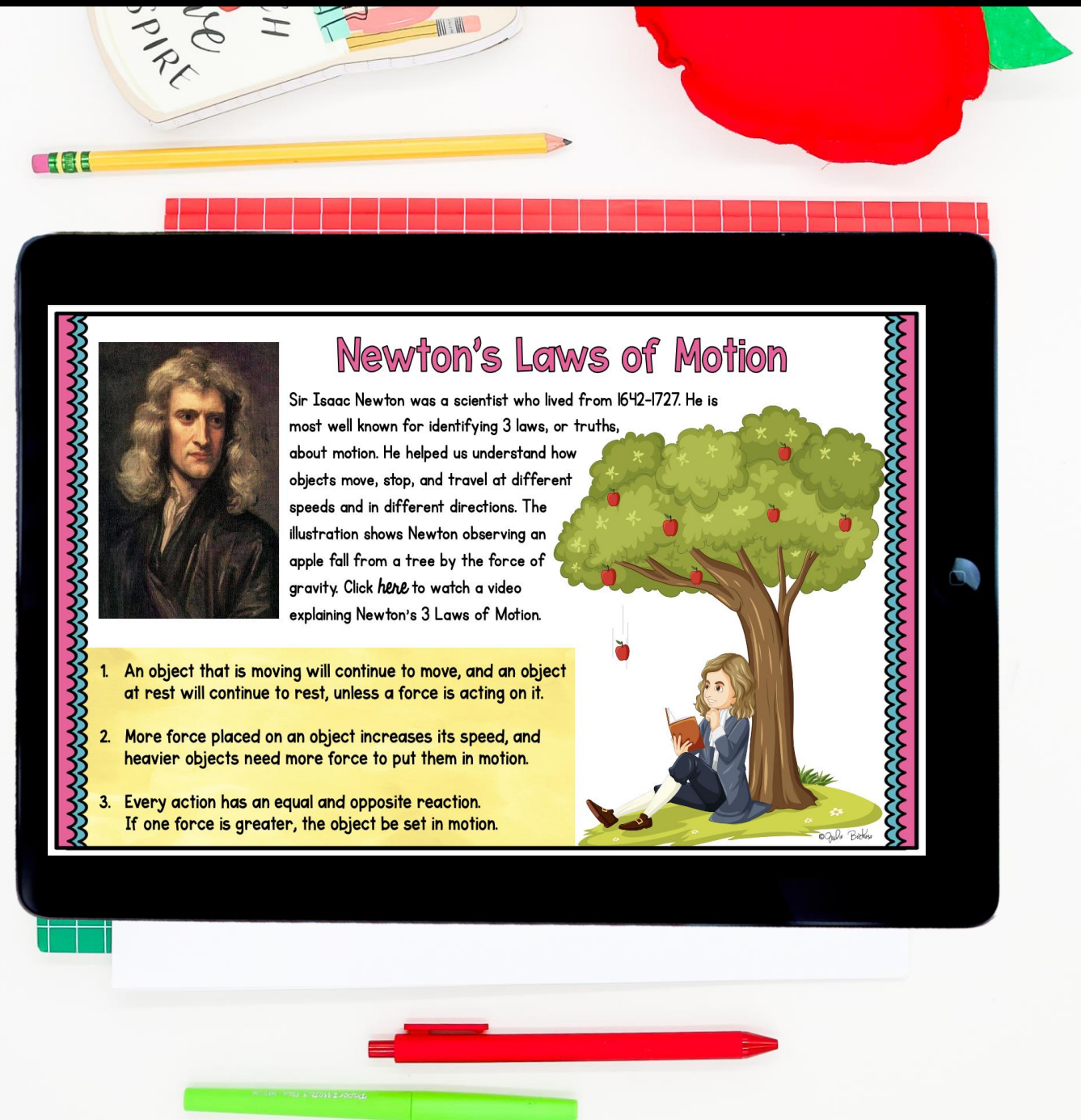
COLLECT STICKERS ON YOUR TRIP

Collect stickers on your
trip to fill in and
complete your theme
park map.



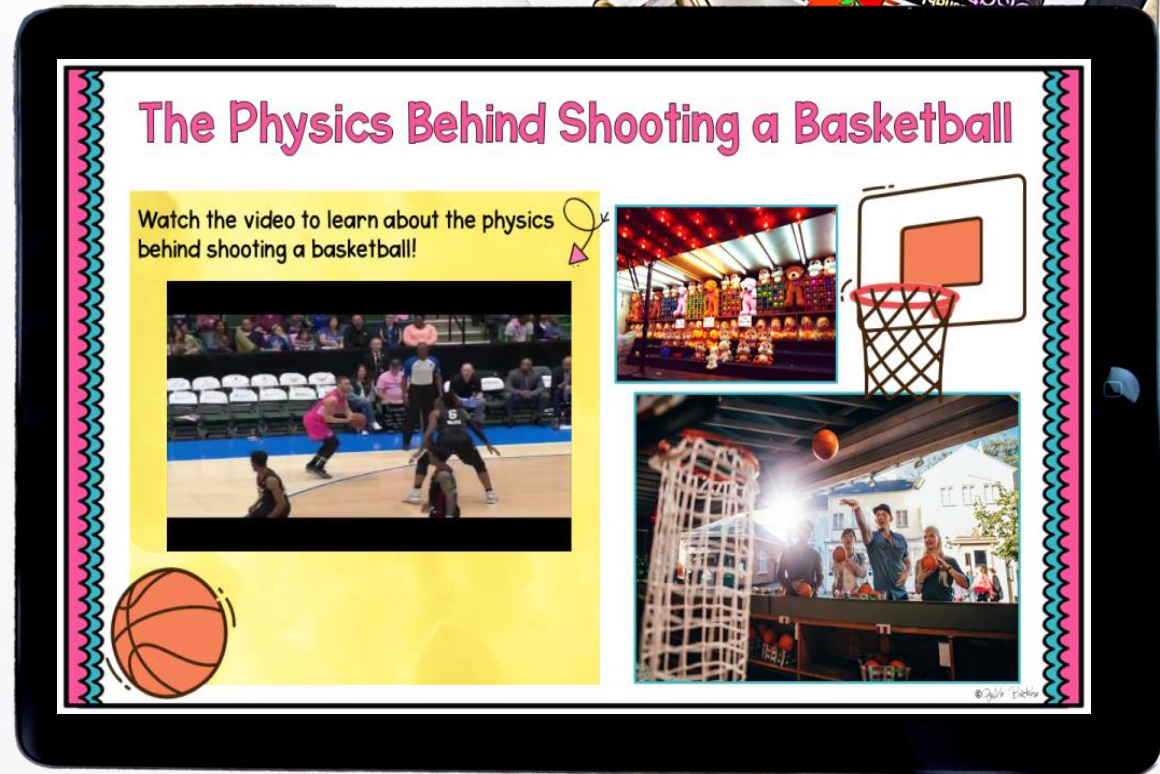
INTEGRATES READING

- Non-fiction passages
- Exposure to text features
- Tier 3 science vocab.



EDUCATIONAL MULTIMEDIA

- Videos that demonstrate scientific concepts
- Supports visual and auditory learners



CRITICAL THINKING SKILLS

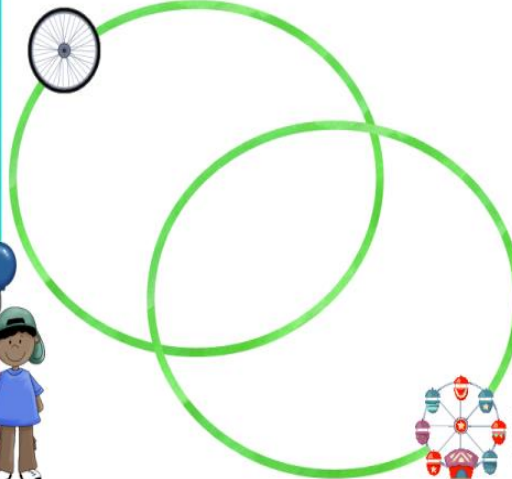
- Promotes higher level thinking skills
- Students will compare and contrast using a Venn Diagram.

Newton's 2nd Law & Ferris Wheels

The video explains how the use of wheels changes the amount of force needed to move an object. But what about when the wheel is the object we want to move? As usual, all three of Newton's Laws can help explain the physics behind a Ferris wheel. Let's just focus on Newton's 2nd law:

More force placed on an object causes greater acceleration (or speed). The greater the mass of an object, the more force is needed to cause motion.

Using Newton's 2nd law and the information you learned in the video, compare and contrast spinning a bicycle wheel and spinning a Ferris wheel.



Return to the map!




ENGAGING AND INTERACTIVE

- Engaging activities that make learning fun
- Practices problem solving skills

Shooting Hoops

Using what you learned from the video, complete the paragraph using words from the word bank.

force gravity forever
motion person



Newton's first law says that objects in motion stay in , while objects at rest stay at rest... unless an external acts on it! When shooting hoops, either in a basketball game or prize game, the basketball is set in motion by the force of the throwing it. If no other force were to act on the ball, it would continue in motion ! After it's thrown in the air, however, the greatest force that acts on the basketball is .

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Suggested Uses

- Assign in Google Classroom or SeeSaw
- Whole Class Activity
- Small groups or center
- Early Finisher
- Incentive or Fun Friday

Google Slides and SeeSaw



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