

Forces and Motion

Art Lesson Plan

Description

Yo-Yos, A New Spin on an Old Toy **Grades 3–5**

With this project students will decorate their own wooden yo-yo. The yo-yo will provide opportunities for science related discussion about forces and motion, art lessons about color blending ... and in the end; they go home with a fun toy!

The spinning motion of a falling yo-yo, and the upwards bounce created by the tug of the string provide the perfect demonstration of forces and motion concepts. You will be able to talk with your class about the concepts of gravity, friction, pushes and pulls, speed, velocity, acceleration, and inertia. Discuss with students what they have learned about Newton's laws of motion. Ask them to relate what they have learned to what they observe with the yo-yo. Encourage students to use as many of their Forces and Motion vocabulary words as possible.

In addition to the science education opportunities, this yo-yo project is an excellent art lesson in color blending. Students will advance their knowledge of color theory by designing color patterns in an arrangement that will visually create secondary and/or tertiary colors when spinning. For example, if students choose to use the primary color of yellow and red, they will get the secondary color orange when the yo-yo spins. If they choose blue and yellow, they will get green. They can add some white or black to their Yo-Yo design to make the secondary colors lighter or darker. If they add a third primary color, they will get a tertiary color such as brown.

This project is a perfect cross-curricular examination of both science and art; and when students take their yo-yos home. They can share what they have learned with their families!

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