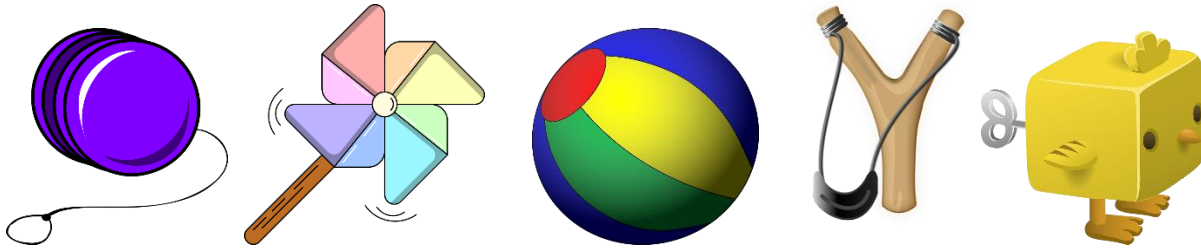


Energy Conservation Lab Activity - Student Edition

Energy Toys

Background Information:

Although we cannot see it, energy can make things work. Many, everyday objects take energy in as one form and then transform it into one or more other forms allowing it to perform a task. Many simple toys that you can find at home, are based on this principle, and are considered converters of energy.



Learning Objectives:

- Identify energy transformations and give examples.
- State the law of energy conservation and apply it to different scenarios.

Pre-Lab Questions:

1. State the law of energy conservation

2. What is the difference between an energy transformation and energy transfer?

3. Identify the type of energy often generated as waste energy.

Name: _____ Period: _____ Date: _____

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Equipment Needed:

Selection of energy toys such as a:

- Yoyo
- Wind-up toy
- Pull back car
- Mini catapult/slingshot
- Bouncy (rubber) ball
- Pinwheel

Method:

1. Use each toy and observe the energy changes occurring.
2. Record all observations in the table below.

Observations:

Name of Toy	Description of how the toy it works	Types of energy involved

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Post-Lab Questions:

1. Write energy chains for each of the toys

2. Another toy that acts as an energy converter is a tire swing. Describe the energy involved in the motion of the tyre swing.



3. Some toys such as cars and robots require a battery to initiate their energy transformations.

- a) Name this initial type of energy.

- b) For a battery-operated toy car write an energy chain to show the energy transformations involved.

4. Is the pinwheel an example of an energy transformation, why or why not?
