

Taking Apart Toys Lesson Plan 6th Grade

Teacher

Date

School

SLE # PS.6.6.1: Compare and contrast simple

machines and compound machines, NS.1.6.5: Communicate results and conclusions from scientific inquiry

Objectives:

Content: I will be able to compare and contrast simple machines and compound machines.

I will be able to communicate results and conclusions from scientific inquiry.

Language: I will be able to use the terms conclusion, inquiry, simple machine and compound machine while working with my group.

Assessment: The teacher will be able to assess student knowledge through participation and through completed diagrams.

Technology/Materials: chart paper, old magazines or newspapers, old toys, variety of screwdrivers, pliers, tweezers, and other tools.

Note: The old toys could be brought in by the students or found at Goodwill or other resale shops. The tools can be purchased at the Dollar Store or brought in by the students with their parents' permission.

Vocabulary: conclusion, inquiry, simple and compound machine

Bloom's: X Remembering X Understanding X Applying X Analyzing Evaluation X Creating

Questions: How does a windup toy work? Describe some of the parts involved in making a toy work. Predict what would happen if one or more of those parts was not working. Give some examples of simple machines. Give some examples of compound machines. Are toys simple or compound machines?

High Yield Strategies: X Identifying similarities & Differences X Summarizing & Note Taking X Cooperative Learning

X Reinforcing Effort & Providing Recognition X Setting Objectives & Providing Feedback Generating & Testing Hypotheses

X Cues, Questions & Advanced Organizers Homework & Practice X Nonlinguistic Representations

Instructional Strategies:

Engagement: Activate prior knowledge by asking questions listed above. Have students work in triads or quads depending on the number of toys that you have for the students to work with. Distribute tools and toys to the students. Allow the students to investigate the toys before beginning activity. Have the students diagram what the toy looks like on the outside.

Exploration: Allow the students to take apart the toys and investigate the internal workings of the toys. Instruct the students to draw diagrams of each simple or compound machine that they see while taking apart the toy.

Explanation: While the students are diagramming, instruct them to write a few short sentences about how they believe that the simple or compound machine helps the toy work. Discuss with the students the different sizes, shapes, and designs of the machines.

Elaboration: Have students create a poster to diagram the different parts of the toys. Then instruct the students to cut out pictures of real world examples of simple or compound machines and put on the poster as well. Have the students compare and contrast the toys and real world simple and compound machines.

Intervention Strategies: See ELL levels in curriculum map.

Accommodations & Modifications (IEPs) Group students as needed, shortened assignment, allow for pictures instead of writing.

Evaluation: Students will share their posters with the class. The students will explain the machines to the class and any similarities or differences they found.

Closure: Students will write about the following.

Are all simple and compound machines the same?

What are the main components of the simple or compound machines?

How do the parts work together in order to help the toys work?

What are some other things you could do in order to view machines in action?

Homework: None