

SIMPLE MACHINES

10.12.2018

Subject

Basic Science

Prepared By

[Instructor Name]

Grade Level

1

Overview

This lesson plan covers teaching content for;

- 1.Simple Machines at home
- 2.Simple machines at school
- 3.Uses of Simple machines

Teacher Guide

Day 1/Lesson 1- 15 Mins

1. Group the students into four groups.
2. Have each group make their own pulley.
3. Take two small spools of thread and put a pencil through the center.
4. Then tie the ends of a length of string together to create a loop.
5. Have two students hold the pencils and spools and spin them slowly to create a pulley system.
6. Then have another student write a message and attach it to the thread using a paper clip.
7. Have them use the pulley to pass the message from one person to the other.

Guided Practice

Day 2/ Lesson 2- 15 mins

1. Place a few discarded machines (phone, toaster, alarm clock, tape player, old radio) on a table with pliers and screwdrivers.
2. Encourage children to take apart the appliances.
3. Ask what simple machines they found
4. Make sure to safety-proof all machines before putting them out for children.

Materials Required

- Spools of thread
- Pencils
- Papers
- Thread
- Discarded Machines
- Books
- Building block
- Mini car cylinders or other object with Wheels or a round shape

Additional Resources

- <https://www.partselect.com/JustForFurLesson-Plans.aspx>
- <https://sciencing.com/lesson-introduce-8078032.html>
- <http://adayinfirstgrade.com/2018/03/e-machines-with-kindergarteners.html>
- <https://www.forteachersforstudents.co/curriculum/simple-machines/facts/>
- <https://www.education.com/workbook/workbook/>

Information/Instruction

1. Talk about how machines cannot work by themselves but need people or power (such as wind, air, electricity, heat) to make them work.
 2. Discuss how a machine usually makes work easier for us. Pass out pencils and paper to children.
 3. Place these "six simple machines" in a box: wheel, lever, pulley, inclined plane, screw, and wedge.
 4. Explain to children that they are going to learn about simple machines.
 5. Make a chart with the six simple machines drawn and labeled for children to use as a reminder.
 6. Let children know they will investigate simple machines and will find them all around the room.
 7. Did children know that all machines are made from these six simple
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Teacher Guide

Day 3/Lesson 3- 15 Mins

1. Construct a lever by taping a marker parallel to the edge of the table.
 2. Tear off a piece of masking tape, loop it, and attach it to the end of the ruler.
 3. Place the ruler on the marker at the center point, like a seesaw, and then press a tennis ball firmly to the tape.
 4. Invite a student volunteer to demonstrate the lever;
 5. first, have the student gently lift the ball by applying force to the end of the lever (ruler) opposite the ball.
 6. Tell the student to reposition the lever (ruler) so the ball is as close to the fulcrum (marker) as possible.
 7. Have the student press the lever again to lift the ball.
 8. Lastly, reposition the lever (ruler) so the ball is as far away from the fulcrum (marker) as possible while still leaving a portion of the lever (ruler) to be pressed down.
 9. Have the student press the lever to lift the ball again.
 10. Discuss what the class saw and what the volunteer observed.
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Guided Practice

Day 4/Lesson 4- 15 Mins

1. Divide students into 2 groups.
 2. Have the groups create ramps (Ramp is a sloping surface joining two different levels, as at the entrance or between floors of a building.) using a book and building blocks.
 3. Give each group a mini-car cylinder, or other object with wheels or a round shape.
 4. Have your students roll different objects down the ramp and measure the distance they traveled.
 5. Then have them change the steepness of the ramp by adding or taking away blocks.
 6. Students can do the activity again and then see how the traveled distance changes.
 7. Have groups share their results with the class.
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	Teacher Guide	Guided Practice
<p>machines?</p> <p>8. Discuss how a machine usually makes work easier for us. Pass out pencils and paper to children.</p>		
<p>9.</p>	<p>1.</p>	
<p>Assessment Activity</p> <p>1. we have discussed six simple machines. Who can name them for me?</p>	<p>Assessment Activity</p> <p>1. At home, think about everyday examples of the six simple machines. See how many you can find around your house.</p>	

	Teacher Guide	Guided Practice
Summary		