A Simple Machine is:

____________________________________________________________________________________________________
____________________________________________________________________________________________________
____________________________________________________________________________________________________
____________________________________________________________________________________________________
____________________________________________________________________________________________________

Some examples of machines that can do work but don’t use electricity are:

____________________________________________________________________________________________________
____________________________________________________________________________________________________

The six kinds of Simple machines are (include name and a sketch for each):

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>MACHINE NAME(S)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inclined Plane</td>
<td></td>
</tr>
<tr>
<td>Wedge</td>
<td></td>
</tr>
<tr>
<td>Lever</td>
<td></td>
</tr>
<tr>
<td>Screw</td>
<td></td>
</tr>
<tr>
<td>Wheel and Axle</td>
<td></td>
</tr>
<tr>
<td>Pulley</td>
<td></td>
</tr>
</tbody>
</table>

Your teacher has six examples of simple machines – classify them here:
# WORKSHEET 1A: SIMPLE MACHINES SCAVENGER HUNT

Team Name: ______________________________

<table>
<thead>
<tr>
<th>Wedge</th>
<th>Wheel &amp; Axle</th>
<th>Inclined Plane</th>
<th>Lever</th>
<th>Pulley</th>
<th>Screw</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Wedge" /></td>
<td><img src="image" alt="Wheel &amp; Axle" /></td>
<td><img src="image" alt="Inclined Plane" /></td>
<td><img src="image" alt="Lever" /></td>
<td><img src="image" alt="Pulley" /></td>
<td><img src="image" alt="Screw" /></td>
</tr>
</tbody>
</table>

Circle the items you found that are compound machines.
WORKSHEET 2A: THE LAUNCH CYCLE

PHASE ONE

________________________________

________________________________

________________________________

PHASE TWO

Ask Tons of ___________________________________________

PHASE THREE

Generate ______________________ and analyze them

PHASE FOUR

Create a ___________________________________________

PHASE FIVE

Highlight and _____________________________________

PHASE SIX – Launch
PHASE ONE

Look

Listen

Learn

PHASE TWO

Ask Tons of Questions

PHASE THREE

Generate Ideas and analyze them

PHASE FOUR

Create a Prototype (or first draft)

PHASE FIVE

Highlight and Fix

PHASE SIX – Launch
WORKSHEET 3A: BEGIN WITH THE END IN MIND

What simple task will your machine accomplish? Come up with three ideas to start the discussion with your team.

1. __________________________________________________________________________________________________

2. __________________________________________________________________________________________________

3. __________________________________________________________________________________________________

Our Team’s Machine will: ________________________________________________________________________________
(After your team discusses everyone’s ideas, write the goal you select here.)

What simple machines would you like to use (or could you use), to accomplish the desired end goal?
Draw pictures and write a brief description of your ideas.

Simple Machines used: ☐ Lever ☐ Inclined Plane ☐ Screw ☐ Pulley ☐ Wedge ☐ Wheel and Axle
WORKSHEET 3B: PUTTING IT ALL TOGETHER – PLANNING THE WHOLE MACHINE

Our machine’s simple task (The Goal):

__________________________________________________________________________________________________
__________________________________________________________________________________________________
__________________________________________________________________________________________________

<table>
<thead>
<tr>
<th>IDEA ONE</th>
<th>IDEA TWO</th>
<th>IDEA THREE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td></td>
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</table>

<table>
<thead>
<tr>
<th>IDEA FOUR</th>
<th>IDEA FIVE</th>
<th>IDEA SIX</th>
</tr>
</thead>
<tbody>
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</tbody>
</table>
WORKSHEET 3C: SEQUENCE PLANNING AND SUPPLIES

In the space below, draw the steps of your machine (or write a description for each step in the correct sequence).

What supplies do you need to build your machine? Think about each step in order and make a list.
WORKSHEET 4A: TEAM ASSIGNMENTS

Think about the work that needs to get done to build your machine. How would you like to divide it out so everyone has a project or role to play, and all the work gets done?

What tasks need to get done? Is there an order or sequence to the tasks?

1. _____________________________________________________________________________
2. _____________________________________________________________________________
3. _____________________________________________________________________________
4. _____________________________________________________________________________
5. _____________________________________________________________________________
6. _____________________________________________________________________________
7. _____________________________________________________________________________
8. _____________________________________________________________________________
9. _____________________________________________________________________________
10. _____________________________________________________________________________

Do some people have more than one task or role?
__________________________________________________________________________________

Are there tasks or roles that you can assign later?

<table>
<thead>
<tr>
<th>Name: ______________________</th>
<th>Role/Project: ______________________</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name: ______________________</td>
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<td>Name: ______________________</td>
<td>Role/Project: ______________________</td>
</tr>
</tbody>
</table>
WORKSHEET 4B: EXAMPLE OUTLINE

Describe what you learned about Rube Goldberg, and what a Rube Goldberg machine is
___________________________________________________________________________________________________________________________
___________________________________________________________________________________________________________________________
___________________________________________________________________________________________________________________________
___________________________________________________________________________________________________________________________

Talk briefly about simple machines and what they do
___________________________________________________________________________________________________________________________
___________________________________________________________________________________________________________________________
___________________________________________________________________________________________________________________________
___________________________________________________________________________________________________________________________

Talk about how you designed your machine
___________________________________________________________________________________________________________________________
___________________________________________________________________________________________________________________________
___________________________________________________________________________________________________________________________
___________________________________________________________________________________________________________________________

Talk about the roles you each played in constructing your machine
___________________________________________________________________________________________________________________________
___________________________________________________________________________________________________________________________
___________________________________________________________________________________________________________________________
___________________________________________________________________________________________________________________________

Describe the changes you made and lessons you learned that helped you arrive at this machine – your final Rube Goldberg machine
___________________________________________________________________________________________________________________________
___________________________________________________________________________________________________________________________
___________________________________________________________________________________________________________________________
___________________________________________________________________________________________________________________________

RUN YOUR MACHINE