Building a Simple Machine- Part I

1st - Get into groups of 2 or 3
2nd - Talk about how you will design your simple machine (materials, etc)
3rd - Make the Design (using the materials provided by your teacher)
4th - Test the Design (at the “testing center” in the front of the room)
5th - Analyze Your Design (did it work, what you changed, etc)
6th - Conclude you Results (write a brief summary of what you did)

Catapult Design
1. Your design should be able to fly things close distance, mid-range, and far distances
2. Your design cannot contain scissors, rulers, or glue as a part of your design
3. Your design should be creative YET sturdy
4. Your design must be able to shoot a marshmallow and the toy car you have in your bag ALL 3 distances
5. You must include any mistakes or changes you made in your design in order to make it successful
6. You must tell me why you chose the materials that you did
7. You must tell me what could have made your design better
8. You must draw an image that tells me where the forces were acting on your design
9. You must be able to design a key naming the simple machines that helped you make up you one big simple machine.

Simple Machines Questions
1. Why do you think simple machines are important?
2. List 5 machines that are important to you. Explain how your life would be affected without those items.
3. List the 6 types of machines, describe them, describe what they may be used for and provide an example of each!!!!
Simple Machines Polaroid Scavenger Hunt- Part II

1st - Get into groups of 2 or 3
2nd - Discuss the areas in which you will look to find the simple machines
3rd - Photograph the Simple Machines (20 minutes per team)
4th - Take Notes for each picture

Instructions

Listed below are 6 categories with 3 possible choices per category. You have 10 pictures on your roll of film. You may only submit one picture for each category. Within each category, you can earn one, two or three points depending on which sub-category your picture satisfies (e.g. In category A, if you found a picture with a compound machine that contains a lever that would earn you two points). Take notes as you take your pictures so you remember where you found the item and which category it falls into. Your group will present these 6 pictures with descriptions of each one.

Lever

A. 1 pt – any type of lever
    2 pts – a compound machine that contains a lever
    3 pts - a compound machine that contains 2 or more levers

Pulley

B. 1 pt. – any type of pulley
    2 pts. – a compound machine that contains a pulley
    3 pts - a compound machine that contains 2 or more pulleys

Wedge

C. 1 pt. – any type of wedge
    2 pts. – a compound machine that contains a wedge
    3 pts. – a compound machine that contains 2 or more wedges

Inclined Plane

D. 1 pt. – any type of inclined plane
    2 pts. - a compound machine that contains an inclined plane
    3 pts. – a compound machine that contains 2 or more inclined planes

Screw

E. 1 pt. - any type of screw
    2 pts. - a compound machine that contains a screw
    3 pts. - a compound machine that contains 2 or more screw
Wheel and Axle

F.  1 pt. – any type of wheel and axle
    2 pts. - a compound machine that contains a wheel and axle
    3 pts. - a compound machine that contains 2 or more wheel and axle