Carnival Games Project 2

Include:
- **words**
- **pictures / screenshots**
- **Your own diagrams**

1. Research: Look over the videos and pictures in this weeks folders. There is a lot of inspirations for games that you can make. Or, come up with something completely new. Please don't break anything or make anything dangerous.

2. Create or design a game. Many carnival games can be created with materials lying around the house. In my video, I use a white board, a ball and a bucket. All you have to do is make something that seems easy to do, but is not because of the set up and rules. Include a picture or video of your game. If you don't have any materials, no worries…just make me a poster of what your game would look like. A good game should have a good name.

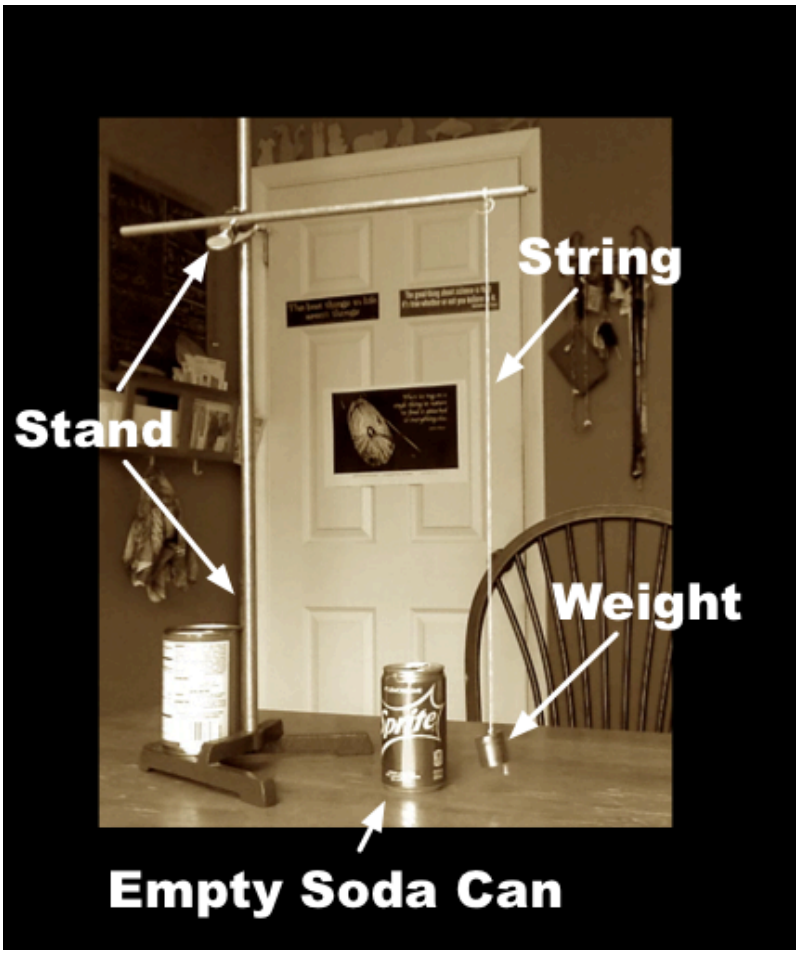
3. What are the rules of your game? Make a list of rules for your game. The rules are important. To make my game difficult I put the meter stick on ground so that you have to throw from far away. How do you win? How much would you charge? What type of prizes do you give out?

4. What is it about the physics that makes this game difficult? Try to pinpoint what it is about the design of the game. There may be more than one thing.

5. So...what's the winning strategy? To be a legal game it has to be possible. So, how can you win? Of course, not everyone follows this rule.

My Example: Pendulum-Challenge

1. Research: I made this game up myself.



2. My Game: The game is called The Pendulum Challenge. The object is to swing the weight out and knock the can down ON THE RETURN SWING.

3. What are the rules of your game?

1) The player must sit in the chair.
2) The player's hand must be at least 3 ft from the can.

3) The player cannot throw the weight over the can; the player can only swing the weight.

4) $1 for three swings.

4) To win, the weight must hit the can on the way back (on the return swing), not on the way out.

4. WHAT IS IT ABOUT THE PHYSICS THAT MAKES THIS GAME DIFFICULT? This game is tricky because you have to give the weight just the right amout of side velocity so that it misses on the way out, but hits the can on the way back. Pendulums conserve most of their mechanical energy, so their swings are symmetrical. That's the key to hitting the can.

5. SO...WHAT'S THE WINNING STRATEGY? The key is to look carefully where the weight normally hangs straight down. Look how far the can is to the one side of that spot. Aim for the exact same spot on the other side on the way out. Since the weight's path is symmetrical, it will come around to the same spot on the other side where the can is and hit it on the way back.