

Middle School Wednesday STEM activity

1-30-13

Wind Energy and Turbine Completion

8:10 – 8:30 Advisory

8:30 – 9:00 Warm up activity (ice breaker) Black Box

Part 1 = Share robots from last week

Part 2 = Karah Huggins leads activity with fact game

9:00 – 9:15 Introduction, directions, expectations

1. John quick review of cell phone expectations
2. Review of purpose of Wednesday and work expectations
 - Read student expectations
 - Review what cooperate means and looks like

Presentation of challenge

- Assigning of groups
- Pass out folders
- Read the challenge
- Answer questions
- Assign rooms to groups and dismiss
- Have groups pick up materials as they head off to assigned rooms

9:15 – 9:30 - Planning

1. Teacher assigns jobs to the group
 - Leader, reporter, recorder, materials, specialist
2. Read aloud Student expectations
3. Reread Objectives for the day – provide time frame
 - ½ time on poster
 - ½ time on turbine build

9:30 – 11 Working on project

11:00 – 11:30 Brain Break

Everyone in the gym – those who want to sit and read may hang out on balcony

Wind Energy and Turbine Competition

Wednesday 1/30/13

Objectives:

1. Students will research the pros and cons of Wind energy in order to make a poster to present their opinion either for or against wind energy.
2. Students will work in teams in order to build a wind turbine that can lift the most pennies.

Expectations:

1. To understand and be able to speak clearly on the issues for and against wind energy.
2. Use the rubric provided to construct a poster that clearly states your groups opinion on wind energy
3. Build and test a wind turbine that can lift pennies

Materials :

Water bottles	cardboard	notecards
cups	string	dowels
popsicle sticks	clay	Styrofoam balls
poster board	markers	
t chart	articles	poster rubric
data collection sheet		