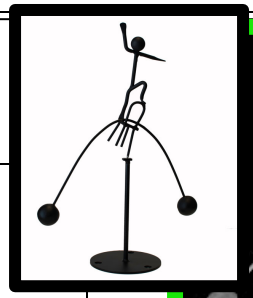
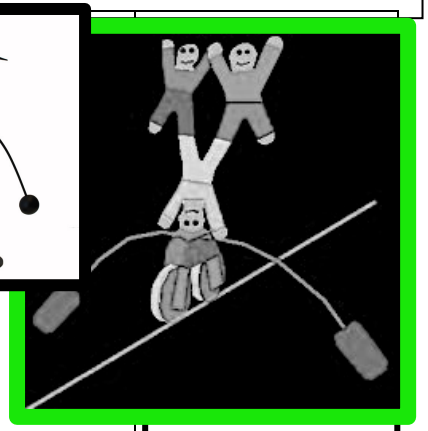
Engineering Design 1

Science 8 Calendar

October 2017

Name _____ Period _____





Thur

23

Engineering Design Problem:

Use the Engineering Design Guidelines to design and build a portable **Kinetic Balancing Sculpture** that balances and moves, using energy transferred from wind or gravity, as it overcomes friction to demonstrate inertia by moving "on its own". (Deliver a cargo of 2 pennies?)

25

←Add Arrows

on the outside of each gear to show direction of motion of each gear and the belt.

1 pt each _____

X Marks the Spot!

Find and mark **(X)** the **Center of Mass (Gravity)** of 3 diverse items. **X and Initial!**

Start with a pencil. _____

Online Activities:

Physical Science→

BBC KS3 Forces _____

BBC KS3 Energy, Transfer & Storage _____

Energy Flows _____

Inquiry & Engineering→

Black Box _____

Discovery Black Box _____

Tracker _____

5 each ____20

26

Criteria and Constraints:

___Complete the Engineering Design Scoring Guide.

Criteria: Sculpture must

__1) Be portable and smaller than your binder.

__2) Balance in continued motion.

__3) Design 1: Wire & Washers.___

__4) Design 2: Asymmetrical ___

And Extra for:

__5) Deliver a 2 penny cargo, perhaps by riding a zip-line to a second location,

Constraints: Sculpture must

__1) **Follow materials constraints on board.**

__2) Be portable and smaller than your binder.

EXTRA for working wheel, pulley, gear, spring, spinner, pinwheel↓, axle, added arm, penny, and/or ?.

Calendars are DUE the Last Day of the Week.

Points:

Arrows & X's

Online

Engineering Scoring Guide

Daily Quizzes:

Mon _____

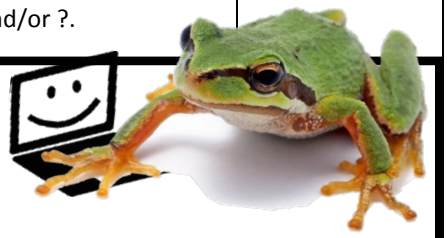
Tue _____

Wed _____

Thur _____

Fri _____

Total _____



Central Science Home Page: www.plyter.com/science

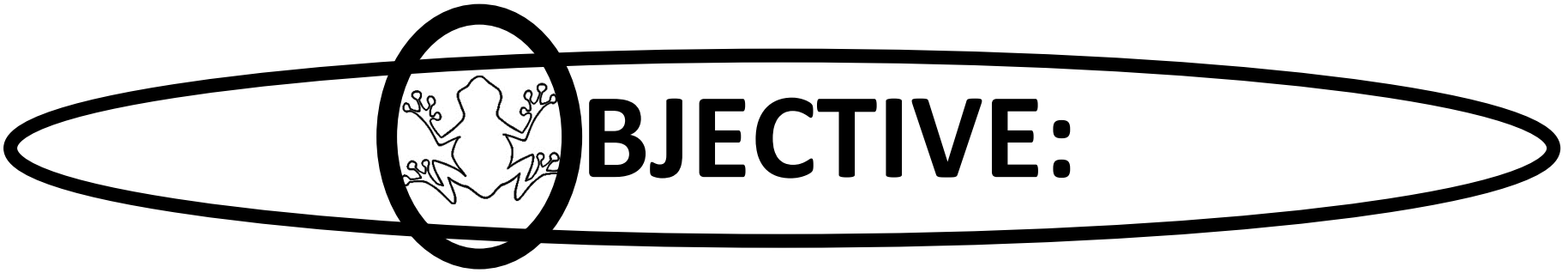
Physical Science→ BBC KS3 Forces BBC KS3 Energy Transfer…. Energy FLows

Google Page → Google Classroom → Prefixes and Suffixes

Practice Tests → *QuizLab* → Classword = plyter18 → Password = Your Student #

Inquiry and Engineering → Black Box →Tracker →Discovery Black Box →Pinwheel with Axle (Spinner)

Copy the Objective:



OBJECTIVE:

Use the Engineering Design Guidelines as I design and build a **Kinetic Balancing Sculpture** that balances and moves, using energy transferred from wind or gravity, as it overcomes friction to demonstrate inertia & move “on its own”. (Deliver a cargo of 2 pennies?)