**Household Energy Conservation and Efficiency**

**Part I - Getting Started – 15 Minutes**

Each team is assigned and members review their assigned roles.

The **materials manager** reports to the Materials Center to collect the team materials.

Once the team has gathered the materials, they will:

1) Review the **Watt meter Data Sheet.**

2) Brainstorm their hypotheses/predictions of what the energy usage of the appliances will be from highest to lowest. (The **recorder** needs to carefully chart the individual predictions of team members).

3) The Observer begins to note how the identified soft skills are reflected in the individual team member group interactions;

4) The Encourager reminds team members of their important role in staying with the group, respectfully and attentively listening to ideas and questions; and persevering to accomplish the goals of the activity.

**Part II - Trials - 30 Minutes**

The **checker** makes sure that everyone has made their individual predictions and works with team members to come to consensus on team predictions. Teams will then be queued to proceed to the Station number aligned with their Team number.

c **Checker** serves as a timekeeper to assure that the Team uses its time at each station efficiently and will consult the **Recorder** to be certain that the team’s calculations and ratings of each appliance is correct. The **Checker** is also the person who goes to the instructor for clarification or direction.

The Observer begins to

After the team completes work at each Station, students are encouraged to use their problem solving skill to **identify variables** which affected their conclusions or were the source of misconceptions that led to their incorrect hypotheses. During this time, the **Recorder** will work with team members in determining the outcomes (first to last energy use) and recording any questions and ideas on the Data Sheet. The Sheet is also used to record student questions on the outcomes of the trials, as well as the variables identified and any “researchable questions.”

**Part III - Team Presentations Preparation and Delivery - 40 minutes**

When the trials are completed, the **Materials Manager** will return the supplies, pick-up and distribute the sheets on ***Source Information*** and the ***Activity Log****.* The materials manager will also bring newsprint and markers to the team:

1) Teams create a visual or graphic that depicts their significant learning that results in a Persuasive Presentation to their school peers on becoming *Household Energy Conservation Ambassadors***.**

2) Teams are responsible for creating a Team Name and a Team Slogan.

3) **Reporters** engages team in decision making about how to conduct their Presentation

4) **Observers** prepare and deliver summary and report on the non-cognitive factors displayed by team members that led to team success.

**Part IV Group Sharing and Processing - 60 Minutes**

the entire group reviews and discusses the information gathered and knowledge acquired during the activity. The entire group shares common problems, variables and surprises that occurred during the activity. Processing of the NGSS, CCSS and 21st century skills as embedded in the lesson occurs through reflection and discussion. References and source material for next lessons are distributed.