Week 3

Whew! You’ve made it to week 3! This is the fun and a little more laid back week- the facilitation of this week really depends on your students and the amount of time they need to complete the next phase of the unit- the model construction, testing, and presenting stage.

Day 1

1. **Materials acquisition conference- the teacher should take time at the beginning of class to conference with each group about their materials acquisition forms, citing errors or even misconceptions and facilitating questioning and discussion**
2. **Begin construction-** 
   1. **The teacher will go over the materials presented for the model build. The “wood” roller coasters will use rubber tubing, while the “steel” roller coasters will use PVC pipe. They will all use connectors and columns for support. These materials can depend on your resources.**
   2. **An example of one type of roller coaster should be presented to the class with the steps it took you to complete it, outlining the next few days for the students. This modeling of the model will help students manage time over the next three class periods.**
3. **Group work:** The rest of class time –
   1. students will need to being the construction process. The materials acquisition managers will be sent to the “materials depot” with their budgets and be able to “purchase” the materials for the model
   2. **This is also a great time for teachers to conference with the project managers to debrief about the last week, discussion conflicts that arose, hitches in productivity, and strategies the leaders used to keep their team engaged.**
   3. **Teachers should also conference with the engineers to discuss the upcoming model process and their questions or hesitations about the build. This is a great time for students to self-question and reflect on the design process.**
   4. Students will fill in their effort logs

Day 2

1. Construction day- this day is set aside for construction purposes
   1. Teachers should be available for questions or have outside resources for students to utilize such as web resources for building models.
   2. Groups will receive a [**Model and Testing Guide**](http://weebly-file/2/1/6/0/21603648/model_and_test_guidelines.doc) to help facilitate their progress through the model construction.
   3. Teachers should also be assessing 21st century skills during this process. (as detailed in the Standards and Objectives section of the PBL site)
   4. **Group work** is the entire class period-
   5. Students will fill in their effort log and reflect about the day.

Day 3

1. **Tests of models-**
   1. **Groups will use the test question handouts and guides to test their models.**
2. **Peer group test**
   1. **Groups will use the peer review guidelines to test another groups model carefully and record observations. The groups will conference together to discuss their models and corrections that could be made**
3. **Modifications/corrections**
   1. **The rest of class should be spent on correcting and modifying the designs**
   2. **Teachers should be available for conferencing and help in conflict resolution**
4. **Groups** receive full work day
   1. **Students will fill in effort logs**

Day 4

1. Modifications and corrections work time- students will have extra time in this class period to   
   finish their corrections and modifications from day 3
2. Presentations- students will also be given a presentation guideline to create a small presentation to present their models to the class with specific questions that must be answered. Students may use a poster, powerpoint, or even a timeline to present the information. This is not meant to be an overwhelming activity, but ask group project managers and bookkeepers to take the lead on this activity so that the engineers and materials acquisition managers can continue to repair the coaster.
3. Group project managers must also delegate the responses for the presentation to the appropriate role. Questions are to be answered by the person who handled that aspect of the design process to ensure that everyone talks in the presentation.
4. Students will fill in their effort logs

Day 5

1. **Presentation day!** 
   1. Students can be given up to fifteen minutes to make last minute adjustments or practice their presentations
   2. Groups will then present to the class
   3. The presentations and models will then be graded by the teacher based on the rubrics given to students.