

Class: Grade 9, Math, Science, Social & LA **Date:** May 22, 2014 **Time/Period:** Period #3, 10:23-10:55

Outcomes Covered:

Science

- I can investigate and interpret the use of devices to convert various forms of energy to electrical energy and electrical energy to other forms
- I can describe & discuss the society and environmental consequences of the use of electrical energy

Math

- I can develop and use a plan for the collection, display and analysis of data by creating a question, choosing a collection method, selecting a sample or whole population, collecting the data, displaying it and drawing conclusions

Social Studies

- I can compare and contrast the principles and practices of market and mixed economies

Language Arts

- I can create writing that has a clear central idea, has relevant details to support the central idea and is interesting to the reader.
- I can use a variety of organizational structures to create writing that has an inviting introduction, a well-developed body and a strong conclusion.
- I can compose effective sentences that utilize different beginnings and are varied in type and length.

Previously Assigned Tasks/Knowledge:

- This project is designed as a learning activity to deepen students' understandings as they work to apply the declarative knowledge they have gained previously in their units of study in each course.
- In order to truly take advantage of this opportunity, students will need to have a base level of understanding regarding the types of electrical production, methods of data collection and aspects of a mixed economy. This will require a measured level of differentiation and scaffolding, building the knowledge needed within those students that might still need some help.

Anticipatory Set (Hook):

Time:10:23-10:30

- The class will start with this phrase: "nothing is more important to a democracy than a well-informed electorate"
- Decomposing this statement together, the premise should appear, that as citizens, if we are going to best serve ourselves and others, if we are going to have an option, it should be an informed one so that we can rationalize it.
- Thus, with our world becoming more digitized and more connected through electronics and electrical content, we should have an idea of how to shape these aspects of our lives, how should we produce electricity in our province.

Lesson/Critical Input Experience:

Time:10:30-10:40

- The project will be laid out to start the critical input experience, all five segments of the project will be explained as students are led through the rubric:
- Electrical production analysis
- Electrical production plan and presentation
- Mixed economy analysis with Alberta
- Business letter to the local MLA asking to present each group's findings
- At this point, students will be given the chance to compose their groups.

Activity/Application:**Time:**10:40-10:53

- Students will have ?? goals within this class,
- first off will be to assign duties within their group, each group member will need to committee to perform aspects of the project that lend to each of the core course within the project. These are the parts of the project that they will be assessed upon at the completion of the overall project.
- Second will be to come up with a timeline that the groups can commit to. The group will have to have rough copies done and shared with me, so that I can review them periodically throughout the project, providing feedback along the way. The overall timeline for this project is 2-3 weeks, depending on the overall class time that can be allotted and students potential access to experts. The overall timeline will be definite during this class and each group will need to submit along with their work commitments, timelines that they are to be held accountable on. Students cannot leave this class until they have their work commitments made and timeline commitments and schedule created.

Closing Activity:**Time:**10:53-10:55

- Students will be making prediction prior to starting this class, it is not part of their assessment, but once they have completed their research and have created their plan, they will look back to and see how close their prediction was to their overall plan and reflect on their product and process. Each of these students predictions will be submitted through g-mail rather than through a Google Doc, so that each student's submission is not influenced by others views.

Assessment:

- Formative: Students will be getting their commitments sheets and timelines approved today, formative feedback will be given throughout the process until students create an acceptable plan of action.
- Also throughout the process, over the next two to three weeks students will be getting continual feedback as they complete their drafts that are shared with me.
- Summative: Students will be assessed at the completion of this project on the aspects of the project that they committed to. This commitment can change throughout the process if the need arises.

Lead to next class:

- Students will be starting their assessment of our current electrical grid, Where will they start, there are decent online sources but is there an expert that they would want to contact initially, the process should be started now if that is the case.

Materials:

- Laptops, Smart Board, Google Drive, Apps and Internet.