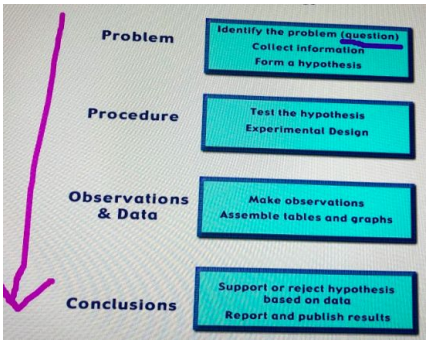
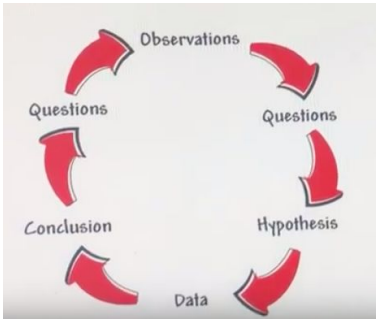
Make-up work for Live Session#2

When looking at the definition of STEM by Vince Bertran, CEO PLTW:" STEM is the applied, integrated approach to those subjects. It is about using math and science to solve **real-world** challenges and problems. This applied, **project-based** way of teaching and learning allows students to understand and appreciate the relevancy of their work to the world around them. Arguably, **STEM is at the core of everything**" there are many words that resonate with my teaching practice:

- Presenting students with **real-world c**hallenges and problems is vital to keep them engaged and make the concepts to be learned relevant to them
- **PBL or PheBL** are successful teaching and learning strategies. My goal is that when somebody enters into my classroom and ask my Science students what they are doing they should answer:" we are trying to solve this problem" instead of saying" we are learning about something"
- **STEM** offers a group of disciplines to explain how the world works so is **at the core of everything** in our lives.

When comparing the traditional scientific method (a) with the circular view approach (b)





I prefer the new one because of the following reasons:

- The flow shown in the diagram makes it less rigid than the traditional one and the cycle allows that we can start the inquiry not always with the observations, for example, but by looking at data.
- The inclusion of questions after the conclusions shows that science is continuously subject to revision.
- It doesn't include the procedure in its steps because not always you are able to perform an experiment to test your hypothesis.
- It's more realistic in terms of showing how scientists work in real-life.

Science teachers should include the scientific method in their classroom as a way of helping students understand the Nature of Science and as a tool to build critical thinking skills.