Science 7

Course Overview

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Course Web Page: classroom.google.com

About the Course

Grade 7 Science takes students on an exploration of questions that are related to issues facing Nepal today and through those questions explores major themes and topics from the main disciplines of science. This course provides an in depth look at experimental design with focus on variables and how scientists use questions and experimentation to help develop a broader understanding of the world around us. Students will continue to develop their proficiency with the scientific reporting process as well as their ability to use sophisticated scientific tools.

Course Structure

Students in Grade 7 Science will explore three main questions about Nepal: How is Nepal affected by climate change (specifically in terms of its water resources), Why is Nepal vulnerable to Earthquakes, and Why is Nepal in an energy crisis?

The course is also structured around a central strand that will be explored through the essential questions that frame each unit. Grade 7 will examine the concept of *transfer of energy* throughout this year and this core strand will link units of study.

Major concepts and themes explored in Grade 7:

- Electrons, electricity and circuits
- Electricity generation, usage and alternative forms of energy
- Watersheds, erosion, water pollution, water quality monitoring
- Water borne diseases and the human immune system
- Newton's laws of motion and how they relate to earthquake

Assessment

Students' progress is assessed through classwork, lab reports, projects and assignments. Students will regularly conduct experiments and complete formal lab reports to explain their process and findings. These reports will sometimes take on alternative forms such as video or podcast reports.

Each student in grade 7 will also design and conduct an independent scientific experiment for inclusion in the Middle School Science Fair that takes place in the 3rd quarter of the year. Students will also be expected to take an active role in online discussions related to the concepts we are exploring in class.

Course Texts:
There is no one text book for this class however students will make use of supplementary texts as well as online resources which will be delivered through the course website.

Students require a notebook to keep class notes and rough information related to experimental results and procedures. They should also bring a pencil and pen with them to each and every class.

Students are also expected to bring their laptop with them to each and every class. The laptop should be charged and ready to use.