



SCOPE & SEQUENCE


GR. 8 - SCIENCE





Student Task

GRADE 8: Science**TOPIC 4: The Earth's Crust****TASK: Slide Shows on Volcanoes, Earthquakes and Plate Tectonics****PRODUCTIVITY TOOL: Internet Research, Multimedia Presentation****TIMELINE: 10-12 Classes****LEVEL OF DIFFICULTY: Project**

Students will choose one of the following topics:

 Volcanoes (types of volcanoes, historical eruptions, lava and magma, damage and restoration, tsunamis)

 Earthquakes (causes, measuring scale, seismograph, types of waves, historical earthquakes, recent earthquakes)


 Theory of Plate Tectonics (number of plates, spreading sea floor, supercontinent)


They will conduct a research project, creating a multimedia presentation to share with their peers.


The multimedia presentation will include:

 title cell


 audio and/or video clip of phenomena


 summary information


 evaluation of the driving forces behind various technological inventions

 explanation of the ways in which technology can assist in the monitoring of local and global environmental conditions

Students will share the information with a partner and revise the presentation, based on feedback, before showing it to the rest of the class. Students will:

 identify the manner in which telecommunications technology affects time and distance in relation to the students' topic

 analyze the impact on society of having limitless access to information

 cite sources when using copyright and/or public domain material




ICT Outcomes

The learner will:

- C1** 3.1 plan and conduct a search, using a wide variety of electronic sources
- 3.2 refine searches to limit sources to a manageable number
- 3.3 access and operate multimedia applications and technologies from stand-alone and online sources
- C3** 3.1 evaluate the authority and reliability of electronic sources
- 3.2 evaluate the relevance of electronically accessed information to a particular topic
- C4** 3.1 create a plan for an inquiry that includes consideration of time management
- 3.3 demonstrate the advanced search skills necessary to limit the number of hits desired for online and offline databases; for example, the use of “and” or “or” between search topics and the choice of appropriate search engines for the topic
- C6** 3.2 identify the appropriate materials and tools to use in order to accomplish a plan of action
- C7** 3.2 make connections among related, organized data, and assemble various pieces into a unified message
- F1** 3.1 demonstrate an understanding that information can be transmitted through a variety of media
- 3.3 apply terminology appropriate to the technology being used at this division level
- 3.6 explain how the need for global communication affects technology around the world
- F2** 3.3 identify the cultural impact of global communication
- 3.4 evaluate the driving forces behind various technological inventions
- 3.6 explain ways in which technology can assist in the monitoring of local and global environmental conditions
- 3.7 analyze and assess the impact on society of having limitless access to information
- 3.8 identify the manner in which telecommunications technology affects time and distance



- F3** 3.4 cite sources when using copyright and/or public domain material
- 3.5 download and transmit only materials that comply with the established network use policies and practices
- 3.6 model and assume personal responsibility for ethical behavior and attitudes and acceptable use of information technologies and sources in local and global contexts
- F4** 3.1 identify aspects of style in a presentation
- F6** 3.3 demonstrate proficiency in uploading and downloading text, image, audio and video files
- 3.4 demonstrate the ability to control devices electronically
- P1** 3.3 revise text documents based on feedback from others
- P3** 3.1 create multimedia presentations that take into account audiences of diverse size, age, gender, ethnicity and geographic location
- 3.2 create multimedia presentations that incorporate meaningful graphics, audio, video, and text gathered from remote sources
- P5** 3.2 demonstrate proficient use of various information retrieval technologies



Curriculum Outcomes

GRADE 8: Science

TOPIC 4: The Earth's Crust

TASK: Slide Shows on Volcanoes, Earthquakes and Plate Tectonics

Specific Learner Expectations

Attitudes


Students will be encouraged to develop:

2. respect for the power of geological forces










Skills

Students will demonstrate the following science inquiry skills:

6. Interpreting Data

-  inferring relationships between observed earth changes and processes that may cause these changes

Concepts

1. Evidence of earth changes can be found through observation of ongoing changes and by interpretation of surface features.
 -  describe evidence for and physical effects of earthquakes
 -  describe patterns in earthquake distribution
 -  identify and describe examples of ongoing crustal movements (e.g., movement of Pacific plate relative to North American plate)
 -  interpret patterns in crustal movement (e.g., relationship to continental boundaries and mid-ocean ridges)
 -  local general distribution of volcanoes on a world map
 -  describe the structure and development of volcanoes
 -  interpret the structure and development of volcanoes
 -  interpret volcanic features and materials (e.g., pumice, obsidian, basalt, granite)
 -  interpret the relationship between earthquake locations, the distribution of volcanoes on the earth's surface and crustal movements

