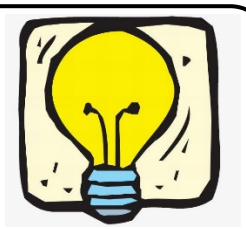
Science 9 Assignment

"The History of the Electricity"



Name: _____ **Date:**_____ **Block:** _____

Teacher: Miss Zukowski **Due Date:** _____

Task Background

For thousands of years, people all over the world have been fascinated by electricity. From the static charges of the ancient Greek's to harnessing the power of lightening, people have always wondered how to put that kind of power to practical use. But it wasn't until the 18th century that the path to the everyday use of electrical power began to take shape. Maybe you have heard about the famous kite experiment by American inventor Benjamin Franklin. In 1752, to prove that lightning was electrical, he flew a kite during a thunderstorm. Throughout the next hundred years, many inventors and scientists tried to find a way to use electrical power to make light. In 1879, the American inventor Thomas Edison was finally able to produce a reliable, long-lasting electric light bulb in his laboratory. Our understanding of electricity has developed greatly over the centuries. Today our standard of living has risen as nearly everyone has electric power at home, school and at work.

Task Instructions

- **Create a timeline** which describes the *history of electricity.*
  - This timeline may be completed on the computer (www.sutori.com class code: fssna)
  - May be completed on poster board
- Include the work of the following scientists **<u>in chronological order</u>**:

Thales of Miletus	Hans Christian Oersted	Charles Wheatstone*	Heinrich Hertz
William Gilbert	Michael Faraday*	Samuel Morse	Hendrik Lorentz
Francis Hauksbee	Thomas Johann Seebeck	Thomas Edison	Wilhelm Roentgen
Benjamin Franklin	Andre Ampere	Alexander Graham Bell	Guglielmo Marconi
James Wimshurst	Georg Ohm	Joseph Swan	Albert Einstein
Luigi Galvani	Joseph Henry	Nikola Tesla*	Alva Fisher
Alessandro Volta	Charles Wheatstone & William Fothergill Cooke	Magnus Volks	Fred W. Wolf
Sir Humphry Davy		Charles Parsons	John Logie Baird

*these people may appear on your timeline more than once, for multiple discoveries and contributions!

- Include the following turning points in Canadian history:

- First coal power plant
- First hydroelectric power plant
- First tidal power plant
- First nuclear power plant
- First commercial wind farm

- Points on the timeline are to be marked as an influential discovery/contribution to the development of our understanding of electrical energy over time.

  <u>Each point should include:</u>

  - The **date** of the accomplishment *(in most cases <u>year alone</u> is sufficient)*
  - **Who** contributed
  - **What** the accomplishment/discovery/experiment was
  - **How** it contributed to the development of our understanding of electricity.

- Pictures and diagrams are encouraged IF RELEVANT *(example, include a video which explains the discovery, a diagram of an experiment conducted, etc. Persona portraits are not necessary)*

NOTE: *Accuracy of scientific information, and quality of content is the most important part of this task. However, you will be also be marked on the presentation of your final assignment.*

Science 9: "History of Electricity" Marking Criteria

Name:_____

Criteria	1	2	3	4	5
Presentation	Timeline is presented messy and/or mostly incomplete.	Timeline is presented **in chronological order**.	Timeline is **NOT** presented **in chronological order**. OR **Includes few pictures** or scientific diagrams.	Timeline is presented **neatly & in chronological order**. Use of **pictures and scientific diagrams** to enhance understanding. Includes a **title**.	Timeline is presented **neatly & in correct chronological order**. Use of **pictures and *relevant,* scientifically accurate diagrams** to enhance understanding. Includes a **descriptive title.**
Scientific Understanding	Statement of isolated science knowledge Statements of isolated science facts	Definition and **statement** of science knowledge **Application** of science knowledge to generate **partial solutions and explanations**. **T**he work of ***few*** **relevant scientists** is presented *(or with several mistakes)*	Description, definition and **identification** of science knowledge Application of science knowledge to generate **solutions** and **explanations** in **simple** situations **Includes** the work of ***some*** **relevant scientists** *(or with some mistakes)* as it relates to the development of the atomic model	Clear description and **explanation** of science knowledge Analysis and application of science knowledge to generate **solutions** and **informed explanations** in a **range** of **situations**, including **some** that are **complex** **Accurately includes** the work of ***most*** **relevant scientists** as it relates to the development of the atomic model	Clear description and **comprehensive explanation** of science knowledge Critical analysis and application of science knowledge to generate **solutions** and **reasoned explanations** in a **range** of **situations**, including **some** that are **complex** **Accurately evaluates** the work of ***all*** **relevant scientists** as it relates to the development of the atomic model
Communication	Use of **everyday language** to communicate findings and ideas. Information is plagiarized from internet sources	Use of **aspects of scientific language**, conventions, representations and text types to communicate findings and ideas	Use of **appropriate scientific language**, conventions, representations and text types to communicate findings and ideas Most of the scientific information is presented in your own words.	**Clear and purposeful use of appropriate scientific language**, conventions, representations and text types to communicate findings and ideas	**Coherent, concise and purposeful use of appropriate scientific language**, conventions, representations and text types to communicate findings and ideas. All scientific information is clearly written in your own words.
Evaluating	**Obvious statements** of the history of **electricity**	Statements of the history of electricity which reflect **little or inaccurate research.**	The history of electricity with research which **includes SOME sources** of data and information • Reference List	Evaluation of the history of the atom with **CLEAR research** which includes **various sources** of data and information • Reference List *(several quality sources)*	Evaluation of the history of the atom which demonstrates **CLEAR and ACCURATE research** which includes **a RANGE of sources** of data and information • Reference List *(extensive, high quality sources)*
Punctuality	Report is missing, 2+ sections and/or is late by 2+ days		Report is missing, 1-2 sections and/or is late by 1-2 days		Report is submitted **in full** and *on time*
				Result:	**/25**