Chemistry 30

 **Energy - Research**

# Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ due Date

Industries utilize raw materials and energy to create some saleable commodity for domestic use, or for export, or for both domestic & export. Somewhere in the world, these products are purchased and this turns a profit for the company.

Today industry and individuals are held more accountable for their ‘carbon footprint’. As technology manufactures products and the public consumes them, everyone is held responsible for the impact on the world.

Students must choose an **Alberta or Canadian Industry** that **utilizes energy** to create a saleable commodity. You can work on your own or with a partner.

Make a 5 – 10 minute presentation to the class. (choose a presentation style that suits you. Skit, power point, song, speech, etc)

You must include

* Name, location, and age of the company
* What is the commodity worth on the market?
* Description of the commodity produced by the industry.
* Who uses this commodity and for what?
* Is this commodity a ‘necessity’ or a luxury item?
* Consider how life would be without this commodity?
* Description of process(es) involved in making the commodity.
* If possible give chemical reactions.
* Since most industry consumes electric energy, describe the source and consumption of this electric energy.
* Discussion of environmental concerns / problems that this company has and how the company addresses these problems (air pollution, land pollution, water pollutions)
* Technological solutions the company employs to limit their carbon footprint.
* Legislation sets limits that companies must follow.
* Find out if your industry goes beyond the minimum requirements.
* Profile the typical consumer of this product.
	+ What lifestyle changes would have to be implemented for the consumer to do without this commodity?
	+ Discuss alternatives that could be used that would reduce the collective carbon footprint of the consumers.

**Marking Rubric** Out of 35 possible marks

|  |  |  |  |
| --- | --- | --- | --- |
| **Communication** | Exceeds expectations – expands the information in a meaningful way | Meets expectations –provides the bare bones of the required information | Below expectations- information is missing or lacking in clarity |
| Audible | 2 | 1 | 0 |
| Appropriate vocabularyDon’t use words you can’t pronounce!! | 2 | 1 | 0 |
| Eye contact | 2 | 1 | 0 |
| Timely | 1 | 0 | 0 |
|  |  |  |  |
| **Information** |  |  |  |
| Name, age, location and type of industry | 3 | 2 | 0 |
| Description of commodity | 3 | 2 | 0 |
| Process(es) in the manufacture of commodity | 4 | 2 | 0 |
| Environmental issues in the development of this commodity | 2 | 1 | 0 |
| Technological solutions to the carbon footprint  | 2 | 1 | 0 |
| Consumer characteristics  | 4 | 2 | 0 |
| Extra information not asked for, but that is pertinent to this industry | 2 | 1 | 0 |
|  |  |  |  |
| Sub total |  |  |  |
| **Creativity** |  |  |  |
| Sets your presentation apart from others  | 2 | 1 | 0 |
| Engages the audience (reflected by quality questions asked) | 4 | 2 | 0 |
| **Bibliography** | 2 | 1 | 0 |

Total