

Evaluating Energy Use at Home and at School

Part A: Visual the Data with a Graph

1. Use the data tables on page 446 and 447 to graph how much energy is used by a typical home and a typical school over a year. The teacher will help you with this.

Part B: Analyze the Data with Graph & Table

Make sure to:

- Answer in full sentences
 - Put some Q in the A
 - Explain your answer
2. Look at the home use of electrical energy. When was the family's use of electricity the highest? When was it the lowest? Give logical reasons for this difference.
 3. Look at the school use of electrical energy. When was the school's use of electricity the highest? When was it the lowest? Give logical reasons for this difference.
 4. a) Compare the use of energy over the year between the family and the school.
*Note: **compare** means to state what is the same and what is different between 2 things.
b) Explain the observed differences between the family's energy use and the school's energy use. Use the chart of high energy users to help you.

High Energy Users
- Lighting
- Air conditioning
- Heating
- Refrigeration
- Computers
- televisions

5. The average Ontario home uses about 1000 kW•h of electrical energy each month. **Compare** our family (graph 1, table 1) to the average Ontario home.

Challenge: Can you average our family's energy use over the 12 months?
If so, how does that average number compare to Ontario's average of 1000 kW•h each month.

6. Which form of information is easier for you to interpret: table of data or a graph? Why?

Inquiry: Graphing - Formative Feedback

Expectation A1.6, E2.8 : Student can graph electrical useage data.

Comments:

Inquiry: A1.10, E2.8: Interpreting Energy Consumption – Summative Marks

Expectation: Student can draw conclusions from data.

Level 1	Level 2	Level 3	Level 4
Attempts to draw appropriate conclusions. Major errors or omissions and/or work incomplete.	Attempts to draw appropriate conclusions. Some errors or omissions. Explanations may be weak.	Draws appropriate conclusions with explanations. May include a few minor errors/omissions.	Draws appropriate conclusions with strong explanations. Includes averaged energy use for #5.