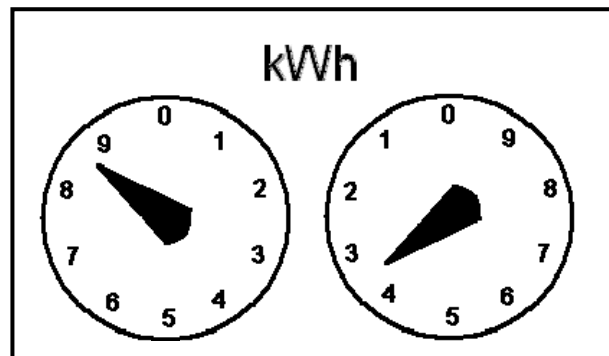


Representing Data

1. Select seven to ten categories of activities that represent how you spend your time each week. Keep track of your activities for a week, and how much time you spend on each one. Present your findings using a table and a circle graph.

To learn more about creating circle graphs, follow the web links on the same page where you found this file on the *MathLinks 8* Online Learning Centre.

2. Locate the electric meter that tracks how much electric energy your home uses. Use the Internet to learn how to read your meter or ask someone to help you.



- a) Record the reading in kilowatt hours (kWh). Take a second reading after one week. Subtract to determine your family's use of electric energy for the week.
- b) Select six electric devices that you think are important users of electricity in your household. Determine the power rating of each electric device. This is measured in watts (W) and should be printed on the device. If you need to move a device to see its power rating, ask an adult for help. Estimate how many hours each device is used per week. To determine the electrical energy used for each device, in kWh, use the formula: $\frac{\text{Power (W)}}{1000} \times \text{number of hours}$. Use a table to record the data for your six devices.
- c) Use grid paper and select an appropriate type of graph to show the energy use for the devices you listed compared to the total electric energy use for the week. Do these devices account for more than half of your household's energy use? Explain.
- d) Make a realistic plan for how you might reduce electric energy consumption in your home. Present your suggestions in the form of a report.

To learn how to read different types of electric meters, follow the web links on the same page where you found this file on the *MathLinks 8* Online Learning Centre.

For information about which type of graph to use for displaying data, follow the web links on the same page where you found this file on the *MathLinks 8* Online Learning Centre.

3. Compare your sleep patterns when you have a structured schedule, such as attending school, to those when you have an unstructured schedule, such as during vacation.
 - a) Record the time you spend sleeping during a school week, in relation to a 24 h day. Be sure to include any naps.
 - b) Record the time you spend sleeping during a week of vacation.
 - c) Using grid paper, create an appropriate graph or graphs to display your results. Explain why you selected the type of graph that you did.
 - d) Write a summary of the similarities and the differences of the two sleep patterns.

For information about which type of graph to use for displaying data, follow the web links on the same page where you found this file on the *MathLinks 8* Online Learning Centre.