

NAME: \_\_\_\_\_



# Activity One



## Diagram Satellite Communications

Find out more about how satellites communicate with one another and with systems on the ground to collect and transmit information quickly from place to place.

Choose one of the following 3 satellite systems to diagram:

- Global Positioning Satellite (GPS) systems
- communications satellite systems (military or civilian)
- weather satellite systems

Use the internet or library resources to try to find out:

- what types of information your system collects;
- what instruments are used to collect the data;
- how the information is transmitted between satellites;
- where the information is transmitted to on the ground;
- how the information is processed for practical use.

Now you have the information you need to create a diagram of your satellite system.

**First**, create a drawing or collage of photographs on large poster paper.

**Then**, label all the parts of the satellite system.

**Next**, draw lines and arrows to show the flow of information from one part of the system to another.

**Finally**, add any captions you think are necessary to explain the function of the satellite system.

Display your diagrams in class.

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## Activity Two



### Create a Bulletin Board of World Communications

Access to different communications technologies is different in different nations. Work with your classmates to create a bulletin board showcasing the use of communications technologies, such as the internet and cell phones, in different nations around the world.

#### Research

First, have everyone in the class choose a nation. Using the internet or library resources, look for the following information about the use of communications technologies in your nation:

- the availability of phone service, including land lines and cell phones;
- the availability of electricity, which supports the use of modern communications technologies;
- the percentage of people who have access to the internet;
- the percentage of people who use cell phones;
- the approximate number of World Wide Web pages hosted in your nation;
- how access to communications technologies varies by demographics, such as income and education levels;
- any challenges people have accessing modern communications technologies.

#### Create Your Display

Create the part of the bulletin board display that will showcase the use of communications technologies in your nation. Determine how much space will be allotted to each part of the display. Based on this information, choose appropriately sized visuals and text for your display. Your display should include summaries of the above information.

#### Assemble the Bulletin Board

In the center of the bulletin board, place a simple political world map with the names of nations labeled. Be sure the image is small enough to leave room for each nation's display, but large enough to read. Then, place the displays in a circle around the map. Place each nation as near as possible to its location on the map. Use colorful yarn to make leader lines pointing from each nation's display to the location of the nation on the map.

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# Activity Three



## Create an Aviation Timeline

**Learn more about the history and sequence of inventions and technological developments that led up to modern air travel.**

### Do Your Research

Using the internet or library resources, try to find out about:

- early attempts at air travel, including the use of dirigibles and other flying machines;
- how developments in engine technologies led up to the design of a propeller airplane;
- the inventions and experiments of the Wright brothers and their contemporaries;
- the development of the jet engine;
- how and when new aviation technologies were developed and put into military and commercial use.

### Create Your Timeline

Use the information you collected to create a timeline of important events that led up to the modern use of aviation technology. Include the dates of technological developments, scientific experiments, and inventions, along with short descriptive labels. You may wish to include photographs representing some of the more important events. Display your timeline in your classroom.

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# Activity Four



## Write a Documentary

**Plan and write a television documentary about life aboard a container ship.**

### Before You Begin

Have you ever watched a documentary? If not, borrow a documentary from the library or find one on television. As you watch, think about how visuals, words, and storylines are used to convey information about events and people's lives. Pay attention to whether a narrator is used to provide background information. How is information balanced with the storyline? What other methods are used in the documentary to teach the viewer?

### Do Your Research

Using the internet or library resources, try to find out what life is like on a container vessel. Find out about:

- WHO is on the vessels;
- WHAT are their jobs;
- WHERE people eat and sleep on the ship;
- WHEN people work, eat, sleep;
- HOW people communicate with friends and family on land;
- any other interesting information about life on a container vessel.

### Write Your Documentary

Based on your research, put together a 15–20 minute documentary about life aboard a container vessel. Outline the stories of your main characters. Write dialogue and set directions to convey the stories. Write the narrative voiceover to provide additional background information.

### Produce Your Documentary

Ask your classmates to act in your documentary. Collect materials to make backgrounds for the scenes. If you have access to a video camera, film your documentary, or perform it live for your class.

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# Activity Five



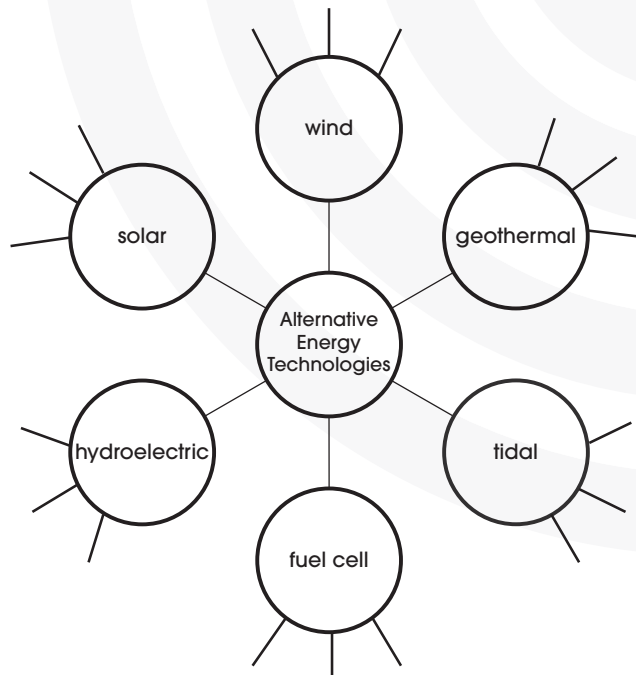
## Alternative Energies Concept Web

Create a detailed concept web to organize information about advances in alternative energy sources and technologies in the following fields:

- solar
- wind
- geothermal
- tidal
- hydroelectric
- fuel cell

Use the library or internet resources to research the technologies that are used and those that are currently being developed in each of the above fields.

Construct your map on a large piece of poster paper so that you have plenty of room to include all of the main concepts about each technology, as well as examples of each technology. You may use **alternative energy** as the central concept, as shown below, or as a top-level concept if you would like to do a pyramid-style map. You may also wish to include photographs of examples of each technology to illustrate your concept map.



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## Activity Six



### Write an Historical Fiction Story

**Write a short story about a family's experience when they first get electricity delivered to their home.**

You have learned about how the use of electricity revolutionized people's lives. Write a story about a family that explains how everyday life changed when electricity was brought to their home.

First, research the era of United States history when electricity was first being generated and delivered to homes. Decide on the setting of your story, and choose an appropriate date range for when electricity was first delivered to your region or demographical area, such as city or rural. Read about the lives of historical figures from that period. If possible, find examples of historical fiction from that period to get ideas about how events are dramatized to convey concepts from history.

Next, brainstorm ideas for a plot that involves the theme of how electricity changed daily life. Think about the characters you want to include, their backgrounds and perspectives, the action they will go through during the story, and how they are changed by the events in the plot. Think about the setting of your story.

Then, write a brief outline of your story, detailing the main events, and the characters involved in each event. Include brief notes about each of the main characters, their backgrounds and personalities.

Finally, write your short story. Present your work to the class.