

MAP CHALLENGE

Expanded Map Workshops for Map of the Month's Individual maps

This PDF file of BASIC MAP SKILLS (Oceanside) is

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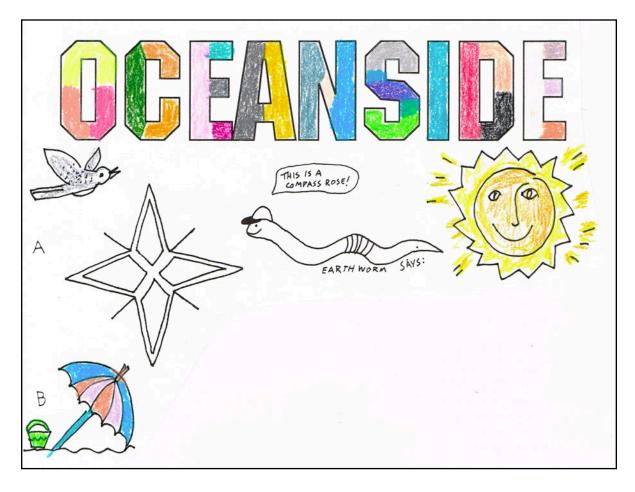
What is a MAP CHALLENGE?

This Map Challenge is a special workshop, challenging you to learn more — taking you through the labeling of this map in detail!

A Map Challenge helps you really get involved when completing our maps!



Wherever you see Earthworm, our mascot, at his computer, you will find some fun additional activities!



Welcome to our first MAP CHALLENGE of the school year 2015-16.

We are excited to be starting with one of our favorite maps BASIC MAP SKILLS, also known as "OCEANSIDE."

This is a fictional town, not one that actually exists, but is based on a small town on the Rhode Island coast!

LET'S GET STARTED!

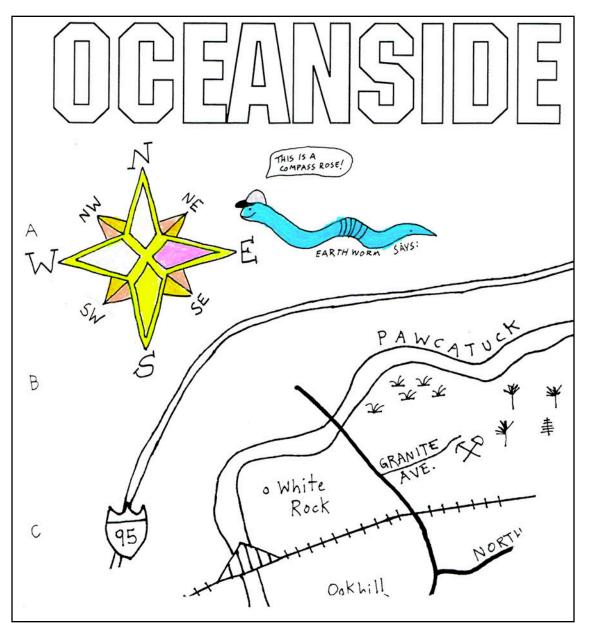
TITLE: A great place to start!

Color in the letters of "OCEANSIDE" in a decorative way that pleases you. The colors and pattern choices are endless. Here we have made ours multicolored!

DRAWINGS

For decoration, add a few drawings to your map. Here we chose a beach theme: sun, beach ball, umbrella and seagull! You could also choose another theme related perhaps to your neighborhood or school, sports, hobbies, or animals....

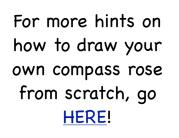
These decorative items are the first thing that people will look at when they see your map!

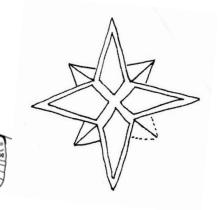




There are 3,980,817 miles of roads in the United States! How many kilometers is that?







Another important part of this map is the COMPASS ROSE.

The map feature called the COMPASS ROSE will help you with the directions around the map. It is also a great decoration for your map.

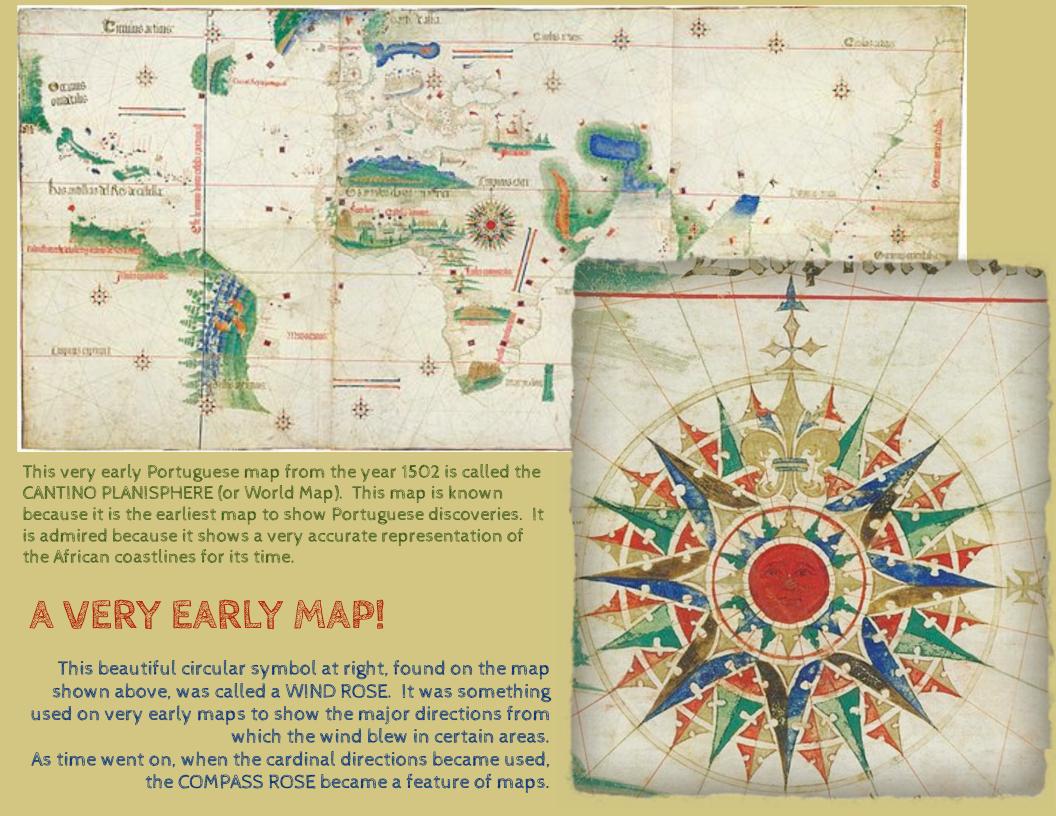
Label the CARDINAL DIRECTIONS on the map:

NORTH EAST SOUTH WEST

Remember this by the phrase:

NEVER EAT SOUR WORMS!

You can also color in Professor Earthworm, our mascot!





THE FIRST COMPASS ROSE!

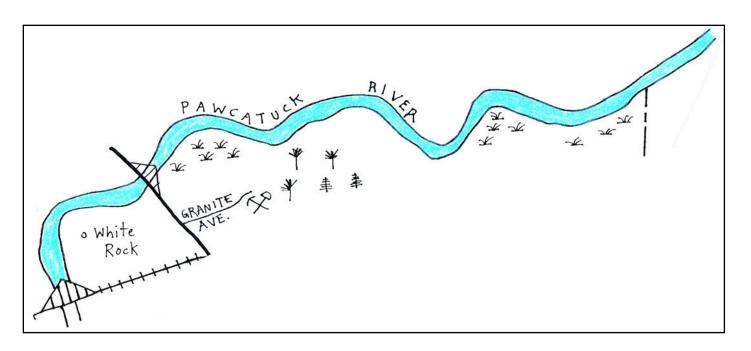
This compass rose detail is from an early collection of maps called the Catalan Atlas. The was the first compass rose shown on a map. It shows the North Star set on the cardinal direction of NORTH.

In Majorca, all through the 13th, 14th and 15th centuries, there worked a group of famous cartographers who made maps: they have been called The Majorcan Cartographic School. It was not an actual school of learning. The word SCHOOL here refers to the unique style and symbols these map-makers developed. Majorca was central to the trade and commerce in the Mediterranean, so it is not surprising that it became a center for early map-making. These map makers were responsible for the Catalan Atlas that included the first Compass Rose!

Research to find out a little more about early map makers! Who were they? Find out what areas of the world they depicted in map form.

WATER FEATURES!

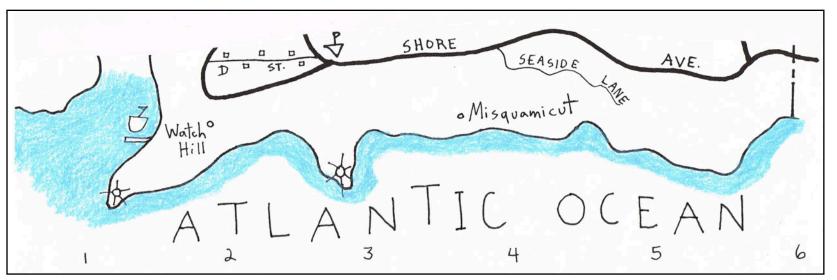
This map shows several kinds of bodies of water. A long RIVER flows into the OCEAN. There is also a (deep) LAKE. To show water on this map, shade with blue. Starting in the northeast section of the map, start by shading the Pawcatuck River. Toward the bottom of the map, you can finish shading the river and also indicate the coastline. You can label the ATLANTIC OCEAN as well.



Definitions!

The terms COASTLINE or COAST are used to describe where land meets a SEA or OCEAN.

The term BANK is used to describe where land meets a river's edge.



VILLAGE WATER BODY SWAMP FOREST HIGHWAY - MAIN ROAD - SIDE STREET ---- TRAIL HOUSE & SCHOOL ++++ RAILROAD AIRPORT YACHT C YACHT CLUB * FENCE A BRIDGE QUARRY POLICE STATION FIRE STATION POST OFFICE LIGHTHOUSE # HOSPITAL

PARK

PLAYGROUND

Next let's look at the MAP KEY.

This key for OCEANSIDE has 23 different symbols that represent features that appear on the map. Here is where color can make a big impact on your map!

- 1. Assign a color to each symbol in the MAP KEY. Some natural features are best colored with specific colors, like BLUE for water, and GREEN for vegetation or land areas.
- 2. Other symbols can be colored with any color of your choice: you choose! So choose your colors and color the MAP KEY in a way that pleases you. You can see at left how we did this.
- 3. When you are done, YOU design some EXTRA symbols to represent some places or features of this fictional town! Use your imagination....



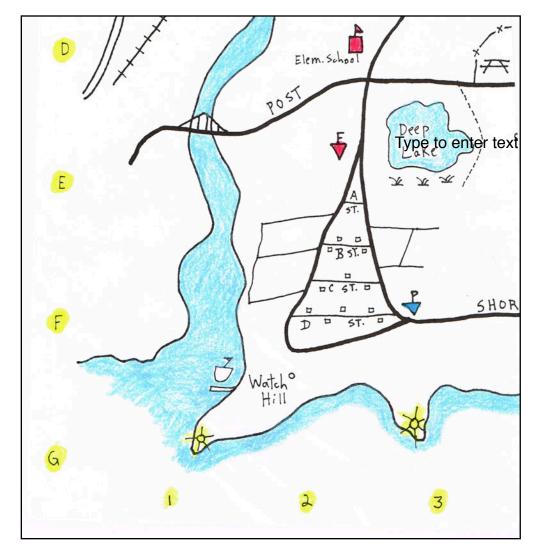
Sometimes
symbols used on
maps are called
PICTOGRAPHS.

Here are some pictograph symbols used by the United States National Park Service on their maps!

1. These symbols were designed to be easily understood by tourists from all nations who might be visiting the national parks in America! Can you understand what each of these pictographs might represent?

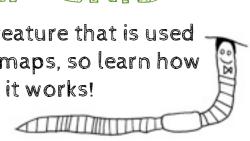


2. Choose seven symbols from the chart above. Write a short story about "A Day in the Park": use all seven symbols to the plot of your story!



MAPGRID

This is a feature that is used on many maps, so learn how it works!



Avery useful part of a map is the MAPGRID

On this map, notice the letters A-G and the numbers 1-6 running along the side and bottom of the map.

To make these elements stand out better. highlight them with a bright color.

By creating imaginary straight lines running out horizontally from the letters and vertically from the numbers, you can find the general location of any place on the map.

For instance, on this small portion of SW OCEANSIDE, we can locate these places:

Lighthouses G-1 and G-3

Police Station F-3

Fire Station E-2

Elementary school D-2

DEFINITION: Transportation is the way that people and goods move from place to place.

What kinds of transportation are used in these situations listed below? Write a small essay that gives examples of how different kinds of people use transportation in different places!

In a small community
In larger places like cities and states
Country to country
Continent to continent
Even from Earth into outer space!!!



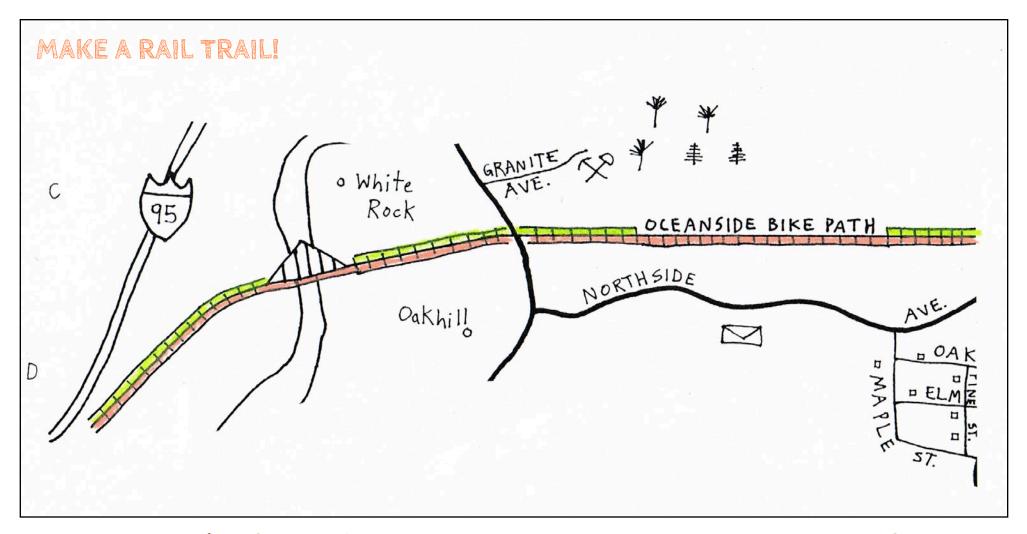
TRANSPORTATION VOCABULARY WORDS

Define these words and terms!

passenger
airline
railroad
street
highway
commuter
traffic
mass transit

vehicle cargo subway station

light rail freeway motor bus transcontinental trolley bridge congestion aviation drivers license ferry carpool waterway freight terminal pipeline speed limit



Many railroad tracks that are not in use anymore are sometimes converted to BIKE PATHS. We decided to do the same in OCEANSIDE! As you can see on the original map, the railroad was missing some rails. Rather than drawing in the missing dashes, we made it into the OCEANSIDE RAIL TRAIN. If you do this, add this feature to your MAP KEY.



Use the scale of miles at the bottom of your map to measure the length of the RAIL TRAIL (or the old railway) shown on the map.

BIKE PATHS and RAIL TRAILS

Bike paths are common in cities for bike use, and are separated from car and truck traffic. They are set aside for cycling alone, sometimes shared with pedestrians or other non-motorized users.

A "Rail Trail" is a little different: A rail trail is the conversion of a no-longer used railway track into a multi-use path, typically for walking, cycling and sometimes even horse riding.

All across the United States and the rest of the world, old and unused railroad tracks have been transformed into trails. These trails provide a safe place for walkers, runners, and cyclists to exercise. These "rail trails" are unique because they are located where former railroad tracks used to be or they run alongside working railroad tracks. These types of trails are typically very flat and long. Many of these paths are considered a long distance trail, which means they are at least thirty miles long. Some of the rail trails in the United States and the UK are several hundreds of miles long. The paths along the railways are all very different, some run through very rural areas and some pass through busy cities. In the US, there are almost 2,000 rail trails and there are also trails in Europe, Asia, and Australia.

Another term related to bike riding in urban areas is CYCLE TRACK!

Describe what this is and how it might be different from a Bike Path or a Rail Trail!





Arkansas River Trail

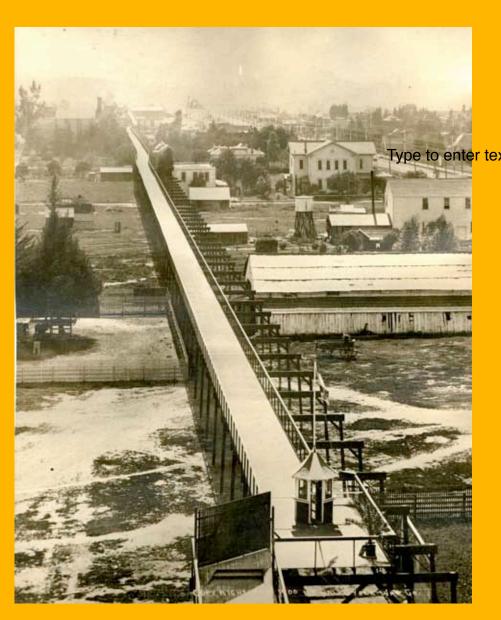
The scenic Arkansas River Trail is 17 miles long and accommodates both pedestrians and bike riders!

BIKING IN THE CITY!

This bike lane in congested Manhattan allows cyclists to stay out of the main flow of cars and cabs! Here we are looking south from 30th Street at a bike lane on 9th Avenue in New York City.



In the year 1900! THE FIRST DEDICATED PATH IN THE WORLD FOR BIKES





Due to the huge popularity of bicycles in the 1890's, the very first trail for bike riding was built in California in the year 1900. It was an elevated bike path that had a toll, a charge to use the trail. The toll was 10 cents one-way, or 15 cents round trip. The trail was meant to connect the cities of Los Angeles and Sacramento. It did not last long, or make a profit and was dismantled before 1910.

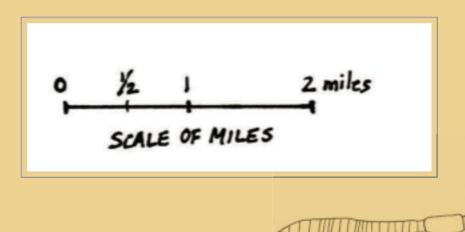
All the wood used to make it was sold for lumber.

Map Scale HOW TO!

Map scales, found on most maps, show how the size of the map features correspond with the size of those same features on the Earth.

When you are looking at a map, you can refer to the map scale and use it to figure out the actual distance between geographic features or the size of an area.

An example of a map scale you may see on a map is that one inch on the map equals one mile on the Earth. If you wanted to measure the distance between two points on the map and saw that there were four inches between them, you could use the information on the map scale to calculate that those two points are actually four miles apart.



"MAP YOUR ROOM" PROJECT!



Measure your own room at home, or your classroom: note both length and width.

Draw the dimensions on a large piece of paper -- maybe the back of your OCEANSIDE MAP!

Using letters and numbers, make a MAP GRID to divide the area into smaller areas.

Plot the placement of your furniture, or a teacher's desk and any other large pieces in the room.

Add the placement of windows, tables, desks, and more.

Make a decorative COMPASS ROSE: you will have to find out where your cardinal directions are!

Make a MAP SCALE to represent distances.

Make a small MAP KEY to help show the items in the room!

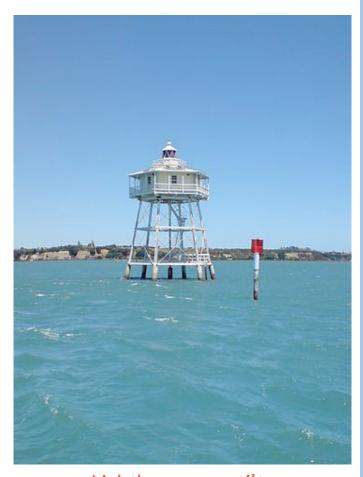
LIGHTHOUSES COME IN ALL SHAPES AND SIZES!



Watch Hill Lighthouse, Watch Hill, Rhode Island, USA



Eddystone Lighthouse, England, UK



Lighthouse on stilts
Hauraki Gulf, New Zealand

Can you locate the
LIGHTHOUSE shown on the
map?
See a symbol for a
LIGHTHOUSE in the MAP
KEY!

Find out which lighthouse in your area is nearest to you! If you live inland, are there any lighthouses on major lakes? If you are far away from a coastline, do some research and choose a lighthouse that interests you.

Write a report about the

lighthouse that is near you,
or one of your choice.

Tell all the details that make
it unique!
When was it built?
Does it have some
interesting history?

What kinds of vessels sail or
motor in the area of the
lighthouse?

What bodies of water and
what kind of coastline does



the lighthouse illuminate?

LIGHTHOUSE IMAGES!

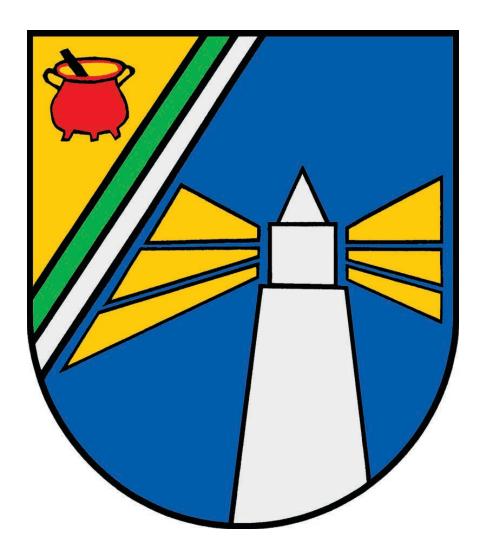


Here are two Coats of Arms that use lighthouses as images.

These two are from the district of Südtondern in Schleswig-Holstein, Germany.

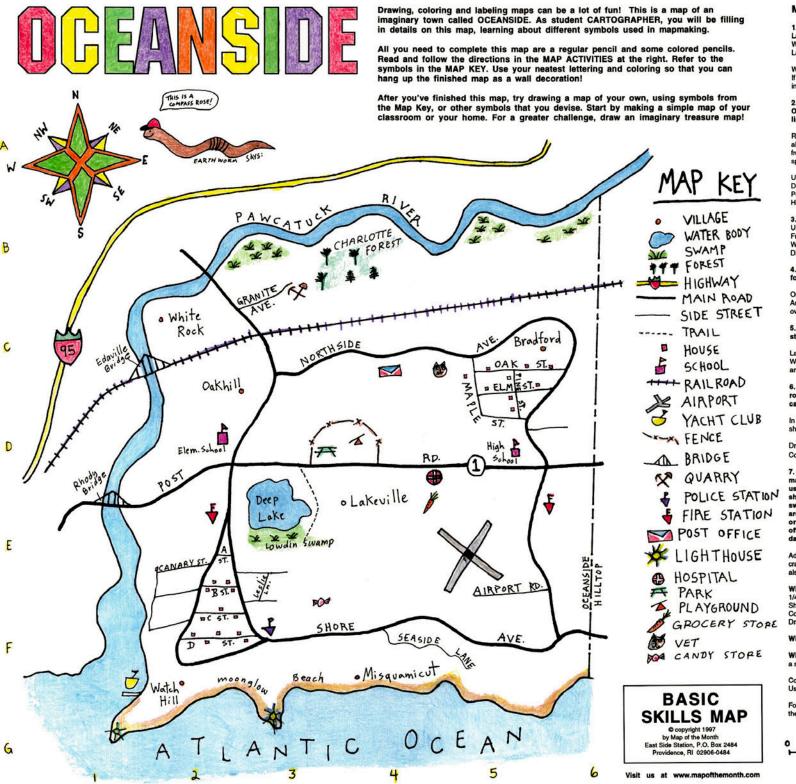
DEFINITION

A Coat of Arms, like those shown above, are shield-shaped insignias that represents a person, family, corporation, or country. These symbols started in Roman times, when soldiers shields were decorated. They been used as a kind of LOGO, or symbol, throughout history, especially in Europe.



Design a symbol like this for your school!
First draw a shield-like outline.
Choose two or three symbols to represent your school.
Draw the symbols in an interesting way within the outline of your shield!





MAP ACTIVITIES

1. A COMPASS ROSE tells direction on a map. Label the cardinal directions of North, South, East and West. Use the abbreviations N, S, E and W. Label the intermediate directions: NE, SE, SW and NW.

What direction is the quarry from Deep Lake? If you were a crow flying from Bradford to Watch Hill, in which direction would you be flying?

2. A MAP GRID helps you locate places on a map. On some maps, another type of grid system uses lines called LATITUDE and LONGITUDE.

Running along the bottom of the map are numbers, and along the side are letters. If you follow an imaginary line, up from a number and across from a letter, you will pinpoint a spot. For instance, on this map the Airport is located in E 5.

Using the map grid, tell where the following are located: Deep Lake Post Office High School

- 3. A SCALE helps you figure out distances. Using the scale and a ruler, estimate these distances: From Watch Hill to Misquamicut = ___ miles Width of town, at widest point, from east to west = Distance from the high school to police station = ___ miles
- 4. SYMBOLS are small pictures or lines that stand for different features on a map.

On this map, symbols are shown in the Map Key. Add symbols to the Map Key. If you design a symbol of your own, keep it simple and easy to draw.

5. Many features of a map need LABELS, such as streets, roads or place names.

Label the Atlantic Ocean. With names of your choice, label blank streets, the bridge, and the forest area.

6. Different TYPES OF LINES are used to show roads, coastlines and political boundaries. A line can be either thick, thin, solid or patterned.

In the Nap Key, you'll see different kinds of lines for roads, shorelines and town boundaries.

Draw a few streets and label with names of your choice. Complete the lines that represent the railroad tracks.

7. COLORS help represent different features of a map. For instance, blue is the color most often used to show bodies of water. Green is used to show land and vegetation, such as forests, swamps, or farmlands. Sometimes cities or urban areas are shown in a bright color like yellow or orange. Buildings, like schools or hospitals, are often shown in red. Roads are often drawn with dark colors like black or brown.

Add some color to this map. Colored pencils work better than crayons or markers because you can get finer lines. You can also have a variety of shades by pressing down light or hard.

With blue: Shade along the coastline of the ocean (about 1/4 inch wide). Shade in the river, staying between the lines.

Color in the large lake.

Draw in and color another lake or pond.

With green: Shade over the swamp and forest areas.

With light brown: Shade along the coastline to represent a sandy beach. Choose a name for this area and label it.

Color in the rest of the symbols on the map and the Map Key. Use colors that you think are appropriate for each symbol.

For decoration, color in the Compass Rose and the name of

