

Oakland Unified School District

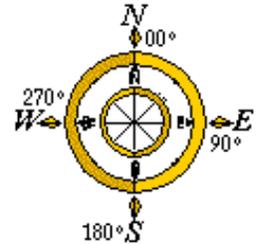
Worksheet To Accompany USGS *What Do Maps Show?* Teaching Packet

Lesson 2: Some Things You Need To Know To Read A Map

Relative Location

Maps use standard directions. The standard directions are north, south, east and west. The top of the map is north and the bottom of the map is south. The following poem is a good way to remember the directions on a map.

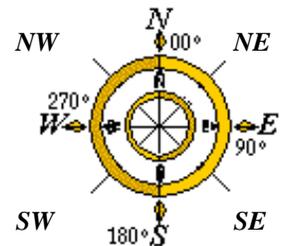
Never	North
Eat	East
Soggy	South
Wheat	West



Start at the top of the map and go clockwise. **North, East, South, West.**

There are many times when things aren't directly north, south, east, or west of each other.

There are four more directions which are used to describe directions on maps.



Northeast
Southeast
Southwest
Northwest

Northeast is between north and east. Southeast is between east and south. Southwest is between south and west. Northwest is between west and north.

It is possible to describe the **relationship** of one place to another. The clock is **above** the doorway. The window is **next to** the door. Describing the location of something compared to something else is called **relative location**.

When you use relative location on maps, you use the standard directions. Los Angeles is **south** of Oakland. Atlanta is **east** of Oakland. Oakland is **northwest** of the Miami, Florida.

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MAP CENTER Practice Session 2

Getting To Map Center

There are several ways to get to MAP CENTER on the world wide web. The fastest way from any computer is to type the address of the MAP CENTER computer in the Address box of your web browser.



The address for MAP CENTER is

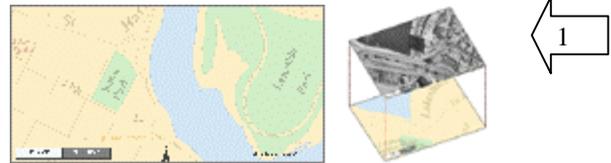
<http://mapstacker.ousd.k12.ca.us/welcome.htm>.

Most computers at District sites have the District's web page as their home page. If you are already on the District's home page, the easiest way to get to MAP CENTER is to click on the **Map Center** link in the **FEATURES** section.

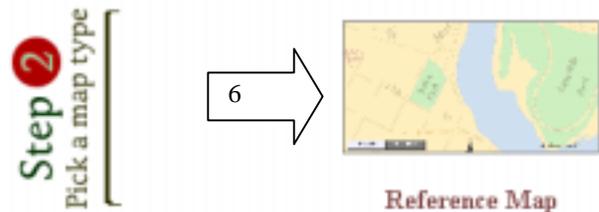


Let's draw a map of the area around Preservation Park.

1. Click on the **Interactive Maps** picture.
2. Click on the **Find a landmark:** circle.
3. Click on the down **arrowhead**.
4. Find **Preservation Park**.
5. Click on **Preservation Park**.



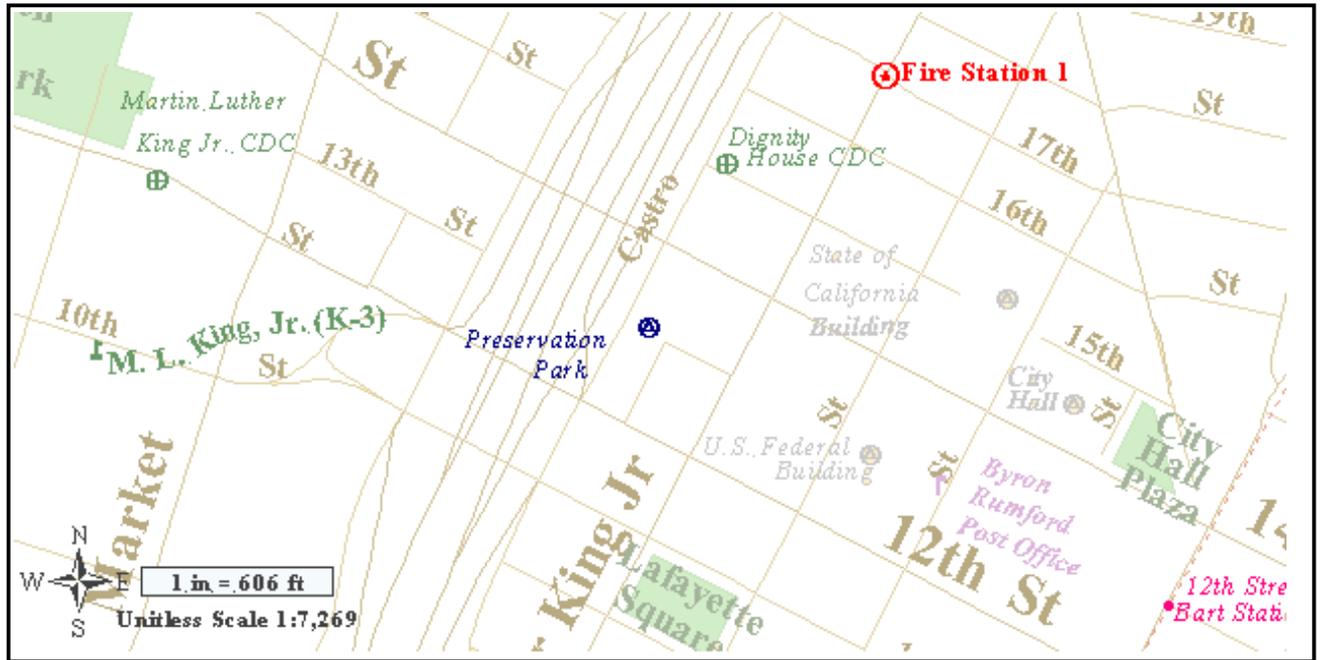
6. Click on the **Reference Map** picture in **Step 2**.



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MAP CENTER Practice Session 2 (continued)

MAP CENTER displays a map with Preservation Park in the middle.



What direction would you have to walk to get from Preservation Park to the 12th Street BART Station?

What direction would you have to walk to get from Fire Station 1 to Preservation Park?

Map Scale

Maps almost always have to be drawn smaller than the actual area of the land. All the things on the map are shrunken by the same amount when the map is drawn. To find out how much smaller the map is than the actual thing we have to look at the **scale** of the map.

The **map scale** tells us how much larger the actual thing is than the map.

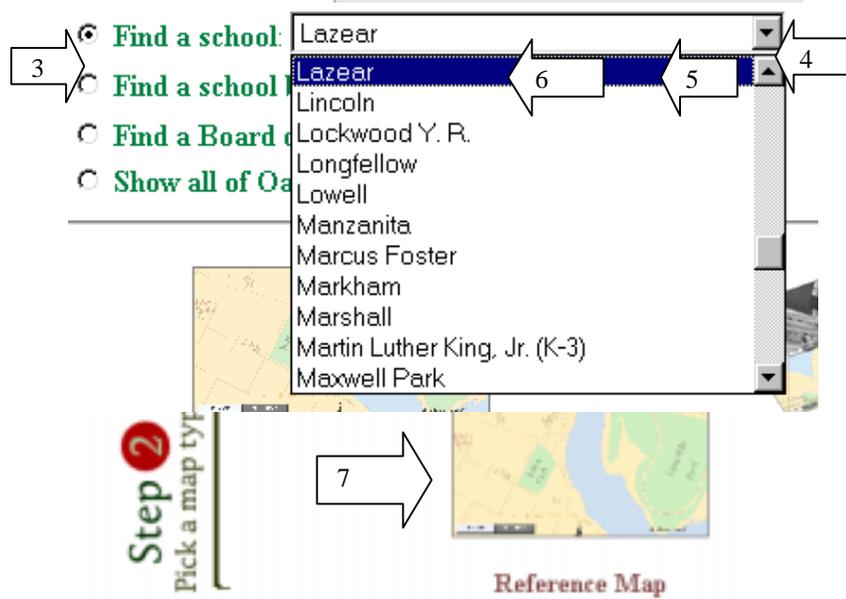
Maps can be either **large-scale** or **small-scale**. On **large-scale** maps a small area is shown in great detail because the things are drawn more close to their actual size. On **small-scale** maps the area shown is much greater and the objects are smaller or not shown because there is not enough room to show them in detail.

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MAP CENTER Practice Session 3

Let's use MAP CENTER to review **map scale**.

1. Go to the bottom of the Reference Map screen. Click on Interactive Maps.
2. Click on the **Interactive Maps** picture.
3. Click on the **Find a school:** circle.
4. Click on the down **arrowhead**.
5. Find the name of your school.
6. Click on the name of your school.

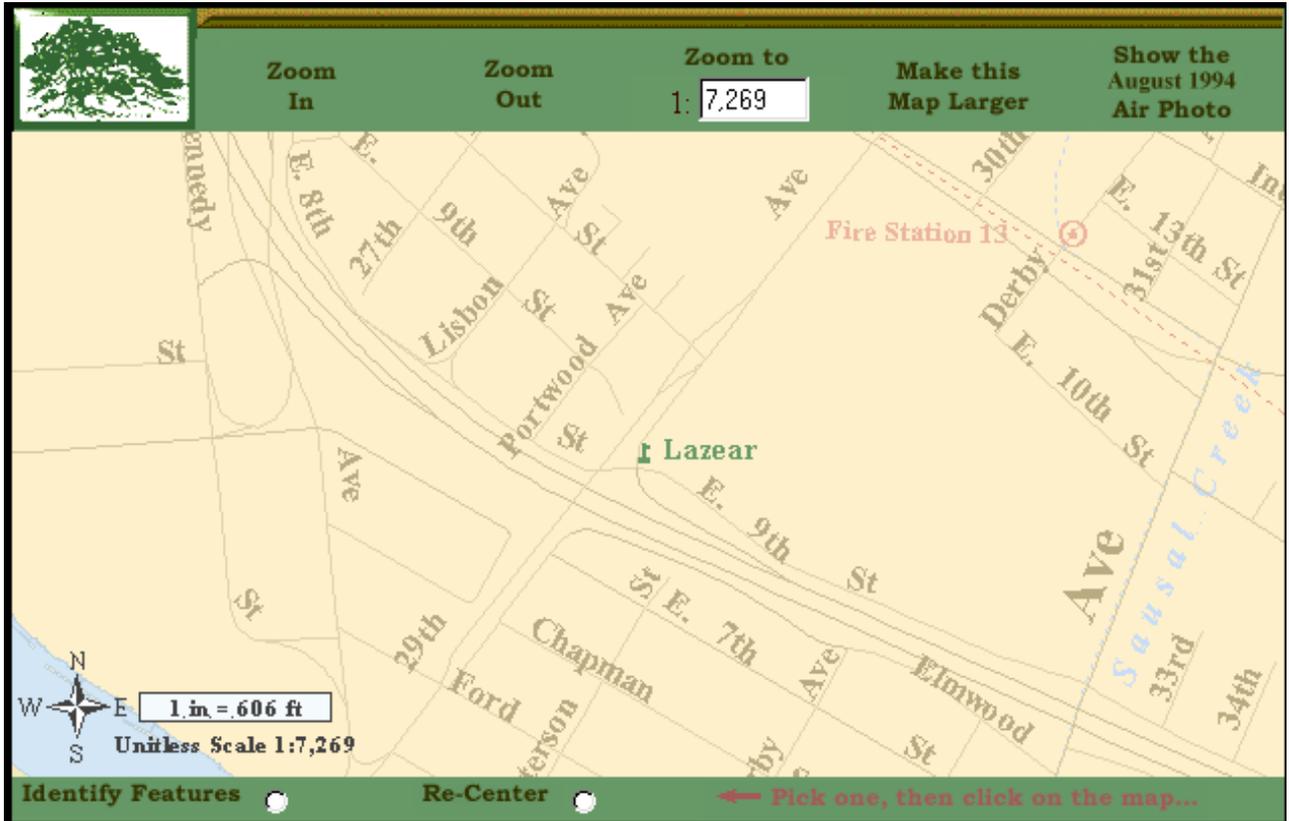


7. Click on the **Reference Map** picture

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MAP CENTER Practice Session 3 (continued)

MAP CENTER draws a map with the school in the middle.



The **scale** of the map is drawn in the bottom left corner of the map.

1 inch on the map equals 606 feet around Lazear school.

The area around Lazear school shown on the map is **7,269** times larger than the area shown on the map.

The following table lists the Lazear map and the three maps of Salt Lake City by their scales. The map with the scale which is the closest to the actual size of the area represented is listed first. The map with the scale which is smallest in comparison to the actual size of the area it represents is listed last.

Map	Scale
Lazear	1:7,269
Topographic Map	1:24,000
Shaded Relief Map	1:500,00
Road Map	1:1,000,000

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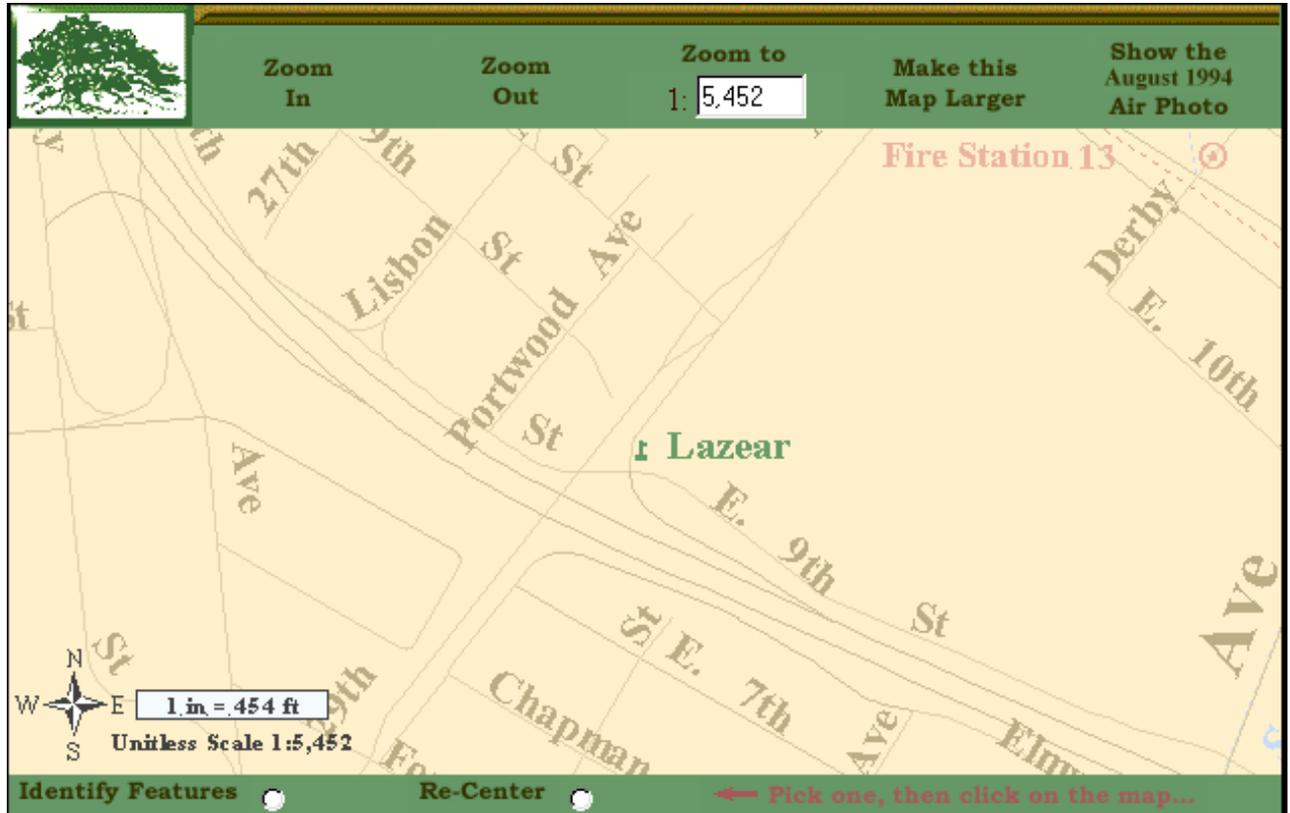
MAP CENTER Practice Session 3 (continued)

Paper maps have only one scale which does not change. You can request MAP CENTER maps at lots of different scales.

Click on the Zoom In Button.



MAP CENTER displays a new map.



1 inch on the map now only equals **454** feet.

1 inch on the old map equaled **606** feet.

You see less of the area around the school than you did in the last map. This is because the screen size is still the same, but the picture being drawn on the map is larger.

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MAP CENTER Practice Session 3 (continued)

MAP CENTER can display air photos taken in 1994 as well as maps. The Reference Map will display either the map or the air photo.

- Click on the **Show The August 1994 Air Photo** button.

Show the
August 1994
Air Photo



MAP CENTER displays the air photo instead of the map.

- Click in the **Zoom to** box after the 5,452.
- Drag the cursor to the left highlighting the number.
- Type **2300** in the **Zoom to** box.
- Press the **[Enter]** key.



The picture is redrawn at a scale of 1 inch equals **192** feet.

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MAP CENTER Practice Session 3 (continued)

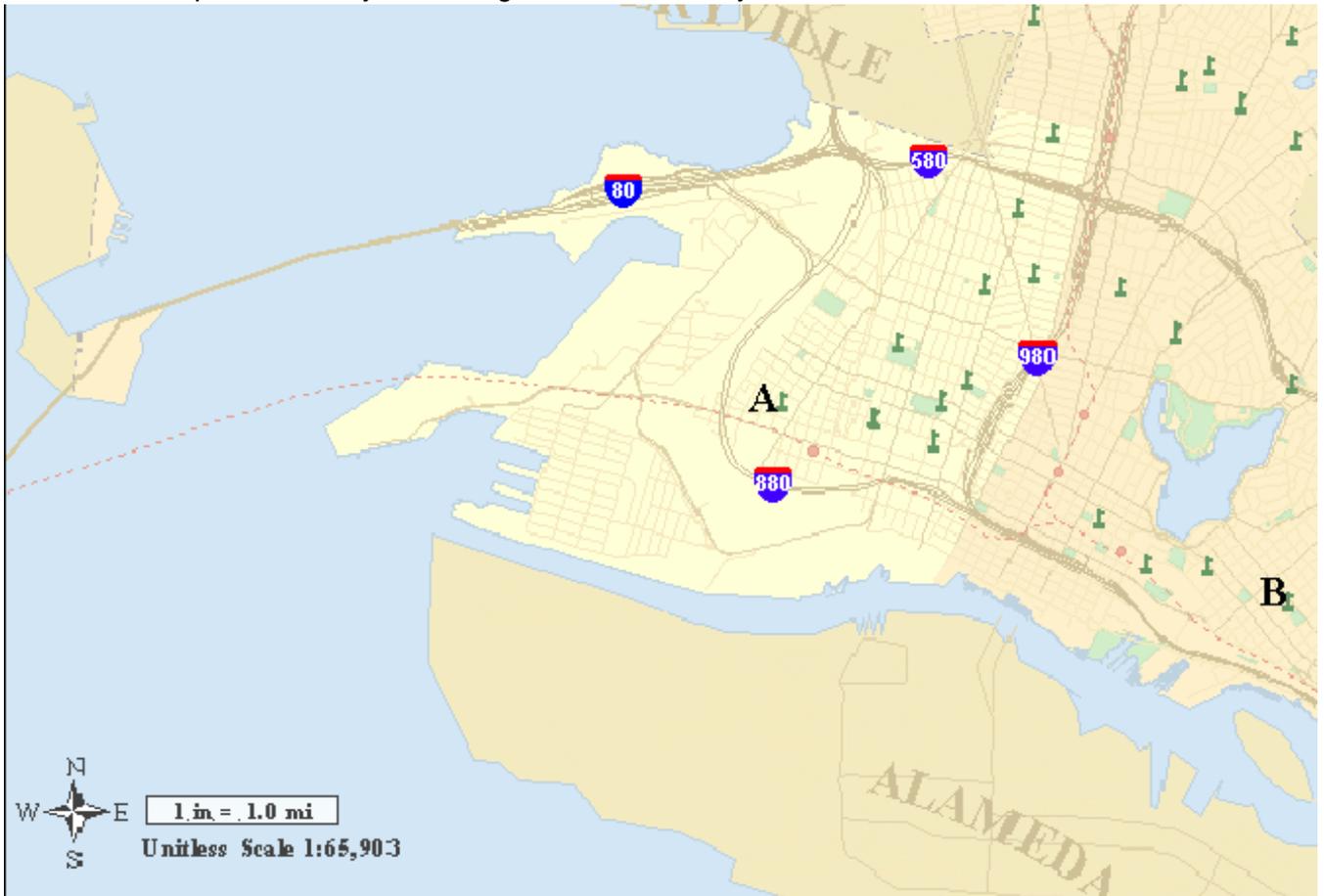
Notice that the picture of the school is much larger at this **scale**.

Also notice that you can't see all of the streets at this scale that you could on the smaller scale map.

Using Scale To Measure Distance

You can measure distances on a map and use them to calculate the actual distances between two locations, if you know the scale of the map.

Here is a map of the McClymonds High School boundary from MAP CENTER.



Look at the scale in the lower left hand corner of the map.

1 inch = 1 mile

Use a ruler to measure the distance between school A & school B in inches.

How many miles would you have to walk to go from school A to school B? _____