



Topic/Objective CHAPTER: 2.2

NAME:

Maps and projections

Pd: 1 2 4 5 other

What is a Map by: [mrgeocjhs](https://www.youtube.com/watch?v=mrgeocjhs)

DATE

1 of 2

Essential Question <https://www.youtube.com/watch?v=RK-dyGGTZRQ> <https://www.youtube.com/watch?v=JLMU82UItxg>

What is a Map? & 5 elements of a map
key

Cue: Review:
Thoughts: Main Idea

NOTE Taking AREA:

MAPS

National Geographic defines maps as:

define

A map is a symbolic representation of selected characteristics of a place, usually drawn on a flat surface.

Information about the world in a simple visual way.

Come in all shapes and sizes

5 basic elements

1) TITLE

a. What the *is* about

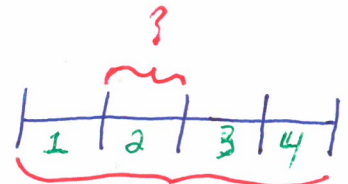
on a map

2) SCALE INDICATOR

a. 3 types of scales

i. Bar Scale

1. Is usually a line (bar)



ii. Verbal scale

1. Someone tells you the size or ratio

i. e. 1cm = 1km

*20 miles
20 ÷ 4 = 5 miles*

iii. Representative fraction

1. Is a ratio (i.e. 1:25,000)

1 hr = 15° = 111km

b. Measure distance on a map.

3) ORIENTATION

a. Compass direction to North

4) BORDER

a. Defines the border of the map area

5) LEGEND

a. Defines what the symbols on a map mean

b. A.K.A. Key.

NOTES CONTINUE ON OTHER SIDE



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NOTE Taking AREA:

Cartography

The art of map making

Map Projections

Is made by transferring points and lines on a globe's surface onto a sheet of paper.

Problems with them

Some sort of distortion

1) Mercator
Projection

↳ Map that has parallel lines of Latitude and Longitude

flat edge ↓

↳ Lines are straight, Flat edge, Box shape

↳ Used for Navigation (long travel routes)



Problems with them

↳ Some sort of distortion, near the Poles

Flemish geographer who creator of this type of map in 1569

Gerhardas Mercator

2) Robinson
Projection

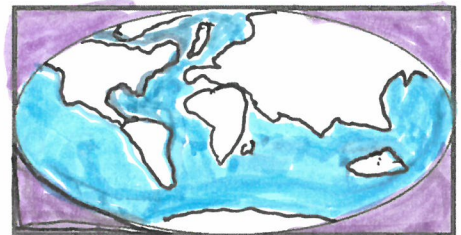
↳ Map that has parallel lines of Latitude and Longitude BUT rounded ends

↳ accurate shapes

↳ Land is more accurate

↳ Used for text books and Atlas

↳ Navigation (long travel routes)



Problems with them

↳ LESS distortion

SUMMARY:

See next page



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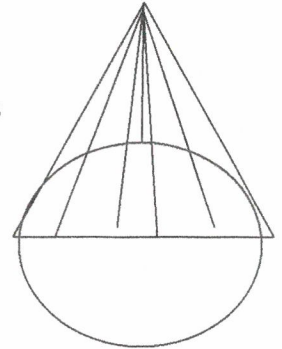
What is a Map? & 5 elements of a map

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NOTE Taking AREA:

**Conic
 Projection**

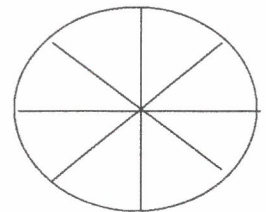
Is made by transferring points and lines on a globe's surface onto a cone.



- ↳ Road and Weather maps
- ↳ Highly Accurate

**Gnomonic
 Projection**

is made by **projecting points and lines** from a globe **onto a piece of paper that touches** the globe **at a single point**.



is most useful for planning **long travel routes**.
 is used for navigation

**Relief
 Projection**

- ↳ shows land surfaces in different color 3D
- ↳ Physical map

**Political
 Projection**

- ↳ Shows boundaries b/t states; countries; cities, towns
- ↳ Shows gov. in control

NOTES CONTINUE ON OTHER SIDE



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NOTE Taking AREA:

Remote
Sensing

↳ Process of data gathering that uses instruments on satellites, aircraft, or ships.

Sonar
Radar

↳ instrument used for mapping ocean floors.
↳ air planes.

Landsat

↳ measure the energy intensity of different parts of ⊕ surface to make maps.
↳ shows surface features as different color.

Topex

↳ details maps of ocean floor, by using radar to show mt. & valleys
↳ Picks up bulges & depressions in ocean H₂O

GPS

↳ global positioning system

SUMMARY:

↳ ~27 satellites that transmit on a microwave frequency

↳ use handheld devices to determine position.