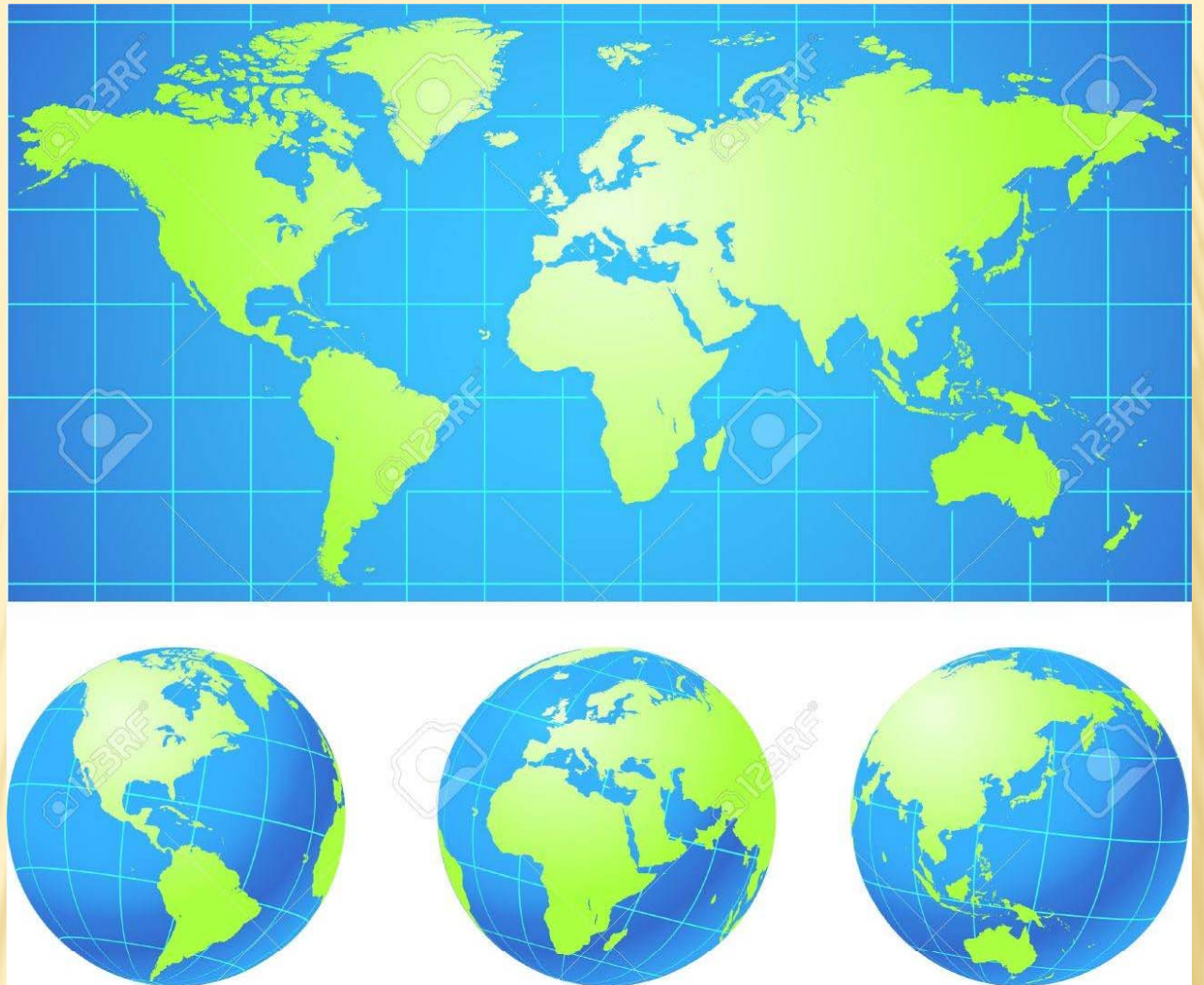




(GEOGRAPHY) LESSON -4

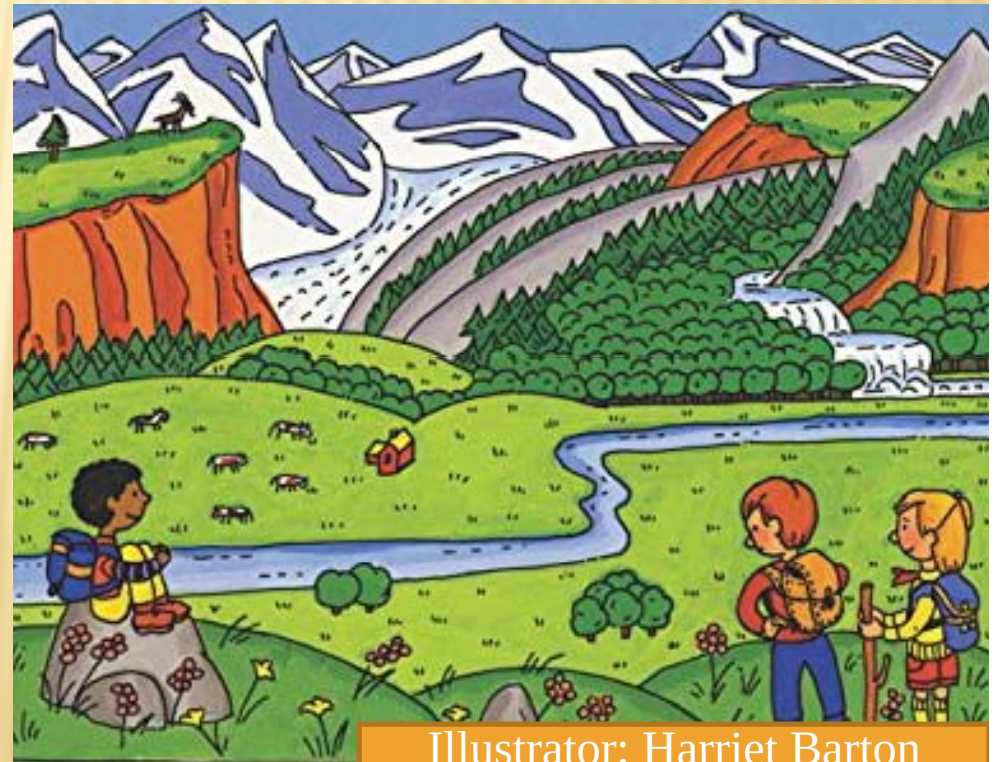
GLOBES AND MAPS

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INTRODUCTION

- ✗ Our Earth is very big in size and it is spherical in shape.
 - ✗ Due to its size and shape we cannot see the entire earth at the same time.
 - ✗ Even the satellite pictures taken show us a part of the earth (partially).
- Therefore a model of the earth can help us view the entire earth called a **globe**.
 - The globes and maps are useful to locate place, boundaries, neighbouring cities. We can see sea routes, air routes, etc.
 - We can locate continent, countries, oceans, rivers, cities, etc.



Illustrator: Harriet Barton

GLOBE

- ✗ A small artificial model of the earth is called a globe. It can help us to see the entire earth.
- ✗ It is a simple and accurate way of representing the earth. A **globe** is a spherical or 3 dimensional (3-d model) of **Earth**.

Problems:

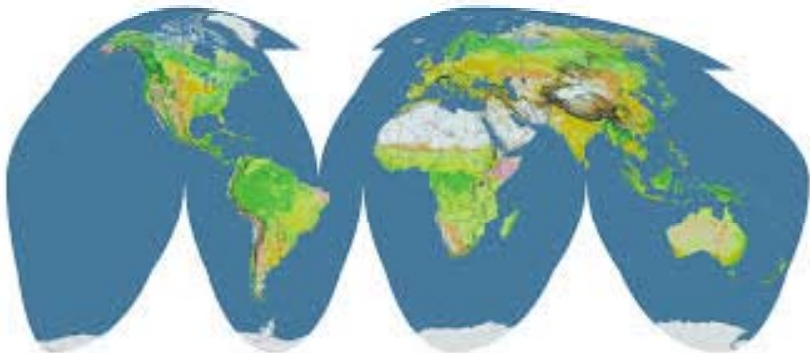
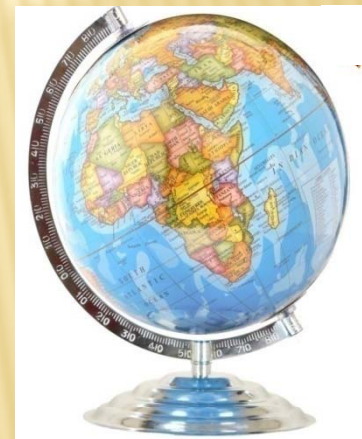
It is difficult to carry a globe.

The space on the globe is limited and details cannot be shown on it.

If only a part of the earth is to be focused on, then a globe cannot be made only for a part of the earth.

Details of geographic features cannot be shown properly like rivers, mountains, etc.

It is not comfortable to make a big size globe.



Instead, if we could cut the globe and flatten it, then we will not get a continuous map though it will give a distorted picture.

MAP

A map is a representation of the Earth's features drawn on a flat surface.

- ✗ The **map** shows the correct size, shape and location of the places in relation to each other.
- ✗ A **map** is a 2- dimensional representation of a certain region or the world.
- ✗ A **map** is a diagrammatic or symbolic representation, drawn to scale and on a flat surface, to show an area of land or sea showing physical features, cities, roads, etc.
- ✗ The word '**map**' has been derived from the Latin word '**mappo**' meaning '**napkin**.'

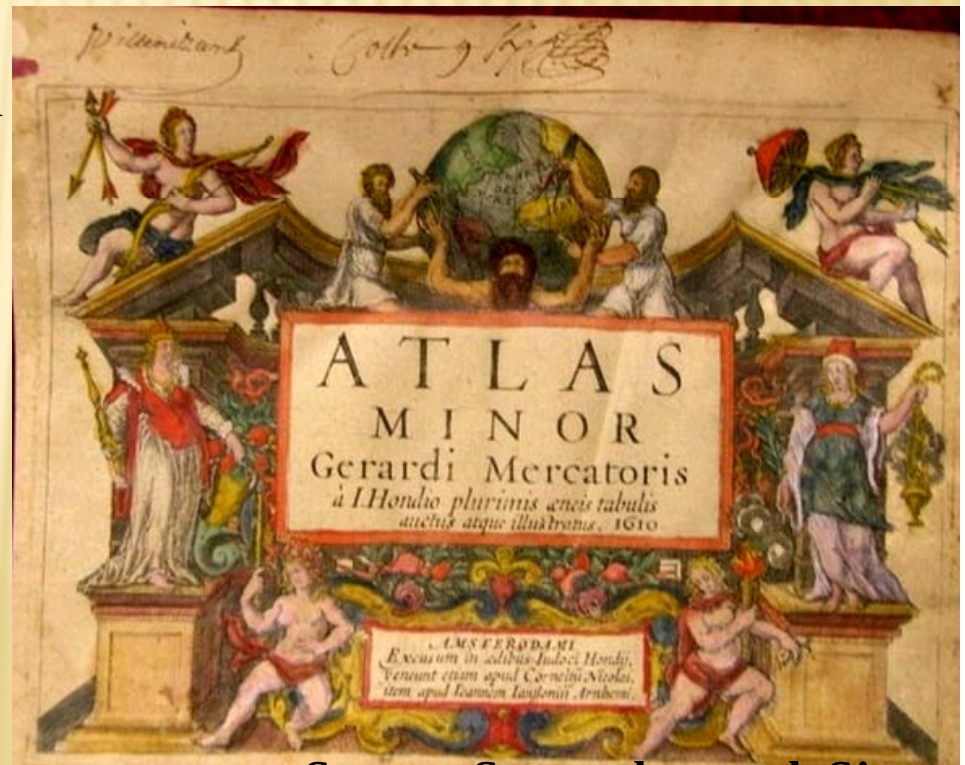
- Mercator and Hondius were the first to publish a collection of maps in the form of a book.

- The cover page had a picture of Greek **mythological giant Atlas** holding the earth.

- Since then a '**book of maps**' is called an **Atlas**.

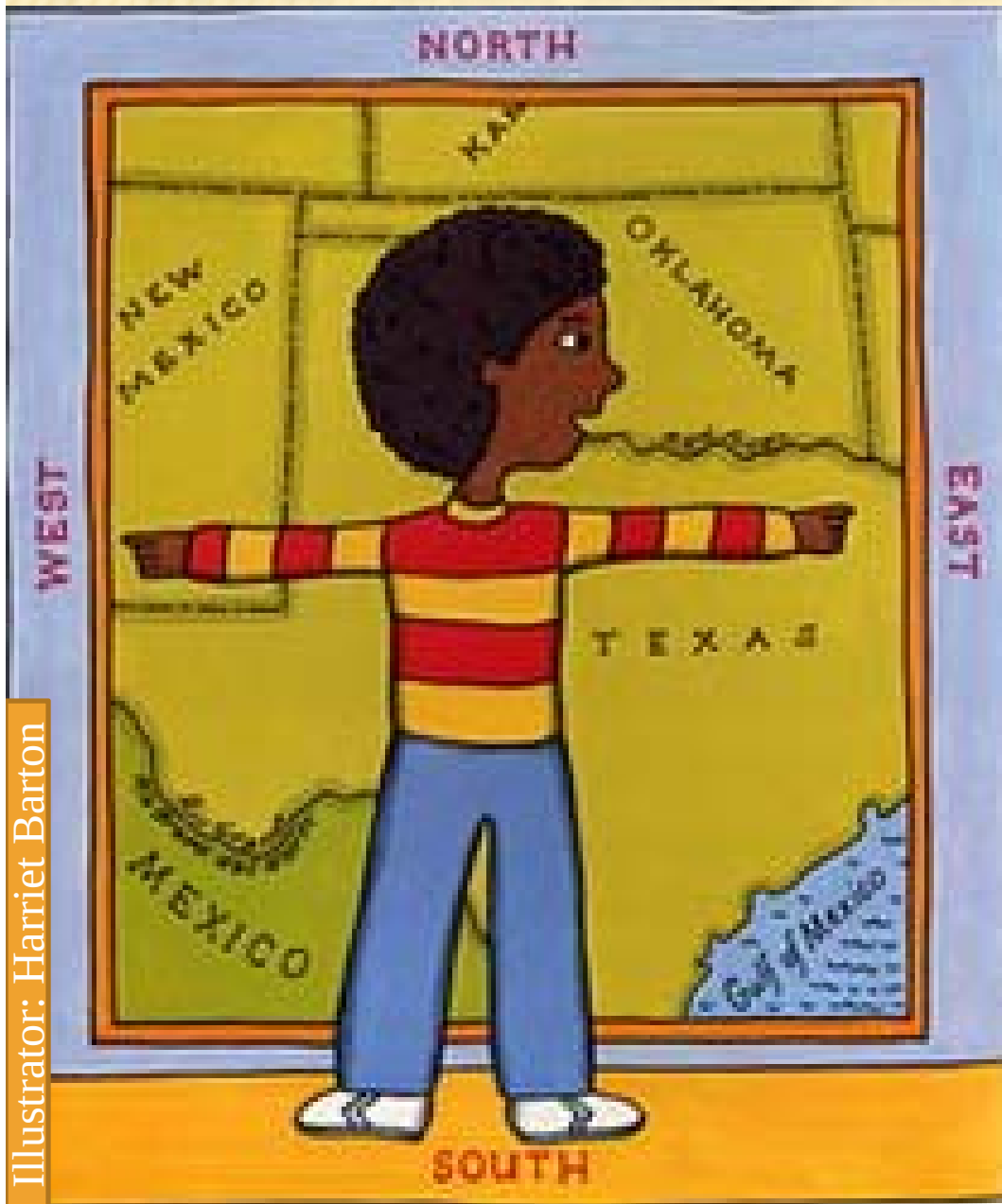
- There are **three main components** of maps:

1. **Direction**
2. **Distance**
3. **Conventional Signs and Symbols**



Source: Statens kartverk Sjø

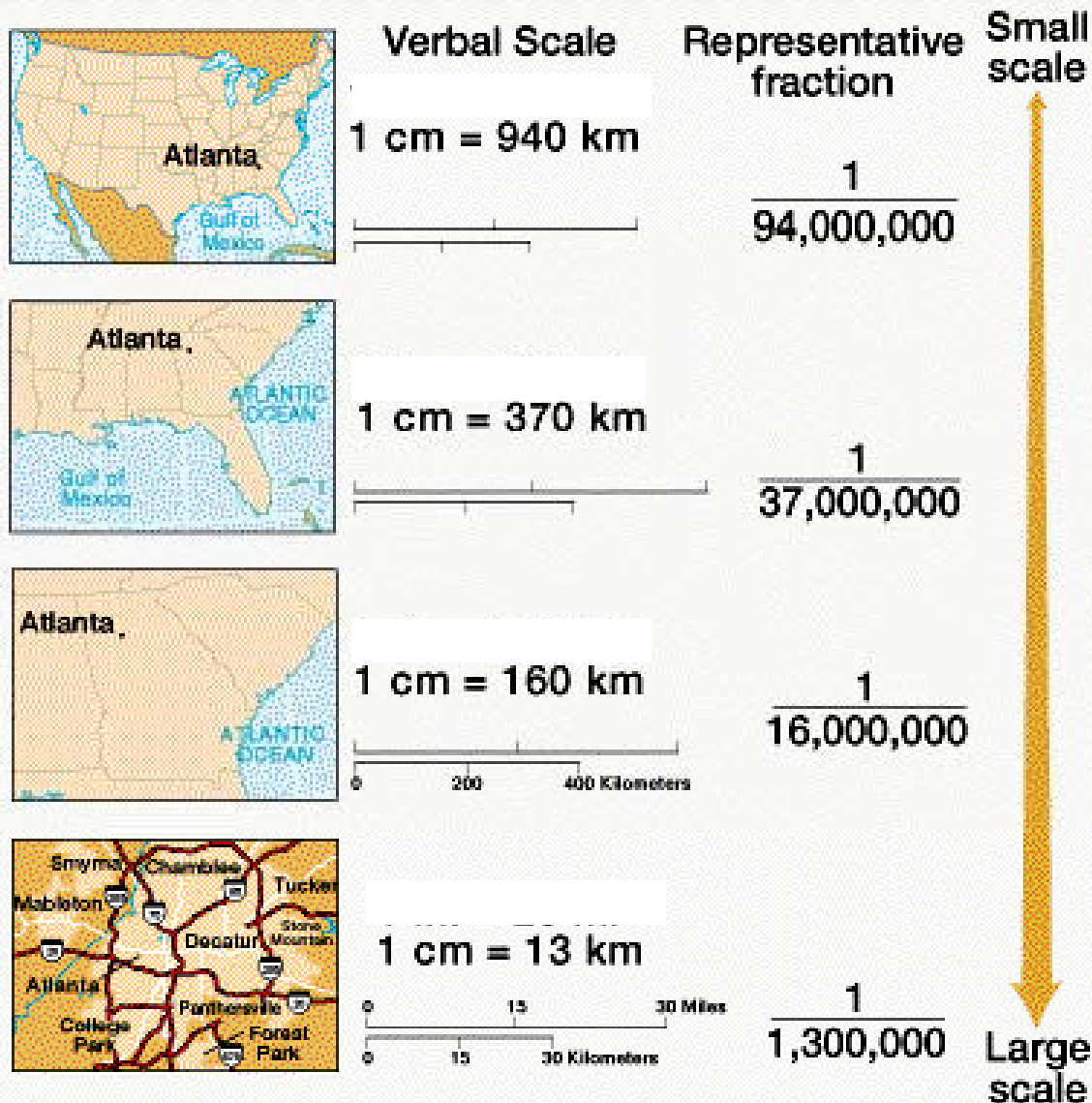
1. MAP- FINDING DIRECTIONS



Illustrator: Harriet Barton

- ✗ Maps and globes take you to places.
- ✗ The **maps** have a language of their own. It is full of names, numbers, imaginary lines, tiny symbols and patterns.
- ✗ The language of maps starts with four basic directions.
 - + North
 - + South
 - + East
 - + West.
- ✗ When you face towards **North** Pole the opposite is the **South** pole. **East** is the direction where the sun appear every morning and **West** is in the opposite where the sun sets.

2. MAP- DISTANCE OR SCALE OF A MAP



- ✗ Distance means the space between any two places.
 - ✗ India follows the metric system in which long distance is measured in kms and short distance is measured in m and cms.
 - ✗ **Map distance-** straight line distance between any two points on a map is called map distance.
 - ✗ **Ground distance-** the real straight distance between same two points on the ground is ground distance.
 - ✗ The ratio between map distance and the ground distance is called the **scale**.
 - ✗ E.g. **Scale** = $\frac{1\text{cm}}{1\text{ km}}$
- i.e. **1 cm distance between two points on the map corresponds to a distance of 1 km between same two places on the ground. (1cm: 1km)**

THREE WAYS OF SHOWING SCALE

The three ways are as follows:

1

STATEMENT SCALE/ WORD SCALE/ WRITTEN

One inch equals four miles

Or 1 inch = 4 miles

2

REPRESENTATIVE FRACTION

1:250,000 or $\frac{1}{250,000}$

3

LINEAR/ BAR SCALE



TYPES OF MAPS

- ✗ Based on the requirement, different maps are used at different times.
- ✗ Two common classifications of maps are as follows:
 1. Based on the **function**
 2. Based on the **scale**.
- ✗ **Based on 'Scale', there are 2 kinds of map:-**
 1. **Small scale maps** - They show very large area with less details. The atlas with such maps or wall maps are used in classrooms.
 2. **Large scale maps** – They show a very small area in detail. The layout guide maps of cities and villages are large scale maps.

Small Scale



Large Scale



✖ According to the function there are 3 kinds of maps:-

1. Physical maps: These kinds of maps show the relief features present on the earth's surface like mountains, hills, plateaus, plains, peaks, valleys, rivers, oceans, etc. These maps help us to explore the landforms of the places.
2. Political maps: These maps show the boundary between different cities, states, countries, etc.
3. Thematic maps: These show specific kinds of information like roads, railways, agriculture, mining, etc. they are theme based maps.

Physical Map of India

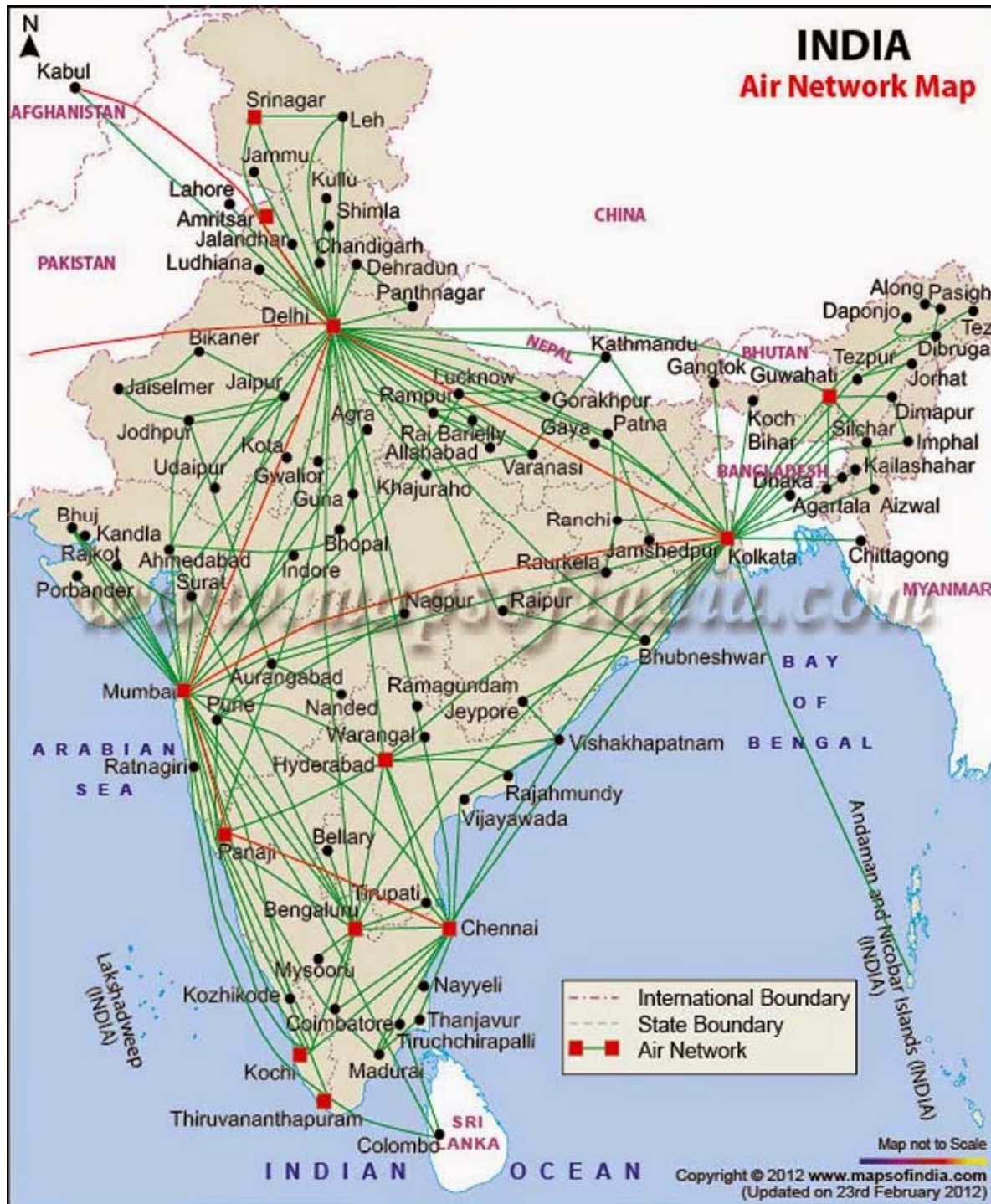
Physical map shows landforms in the given area such as elevation, deserts, rivers, forests, etc.



Source: freeworldmaps.net

Political map shows the political borders between cities, states, countries, etc.





Thematic Map of India

Thematic map uses a basic outline of the map as a backdrop for highlighting "theme" of data such as air or train routes, vegetation, ore-deposits, etc.

CONVENTIONAL SIGNS AND SYMBOLS

Symbols	Features
PO	Post office
==	metalled road
PS	Police station
RF	Reserved Forest
— • — • —	international boundary
—	river

(i) International Boundary	= — • — • — • —
(ii) Bench Mark	= BM200
(iii) Villages	=
(iv) Metalled Road	=
(v) Foot-path with Bridge	=
(vi) Places of Worship	=
(vii) Railway line	=

Railway Line : Broad gauge, Metre gauge, Railway station



Roads : Metalled, Unmetalled



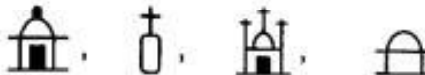
Boundary : International, State, District,



River, Well, Tank, Canal, Bridge



Temple, Church, Mosque, Chhatri



Post Office, Post and Telegraph Office, Police Station

PO, PTO, PS

Settlement, Graveyard



Trees, Grass



Some of the standard 'signs and symbols' used on the maps **commonly** to mark necessary objects and physical features of the area are termed as conventional signs and symbols.

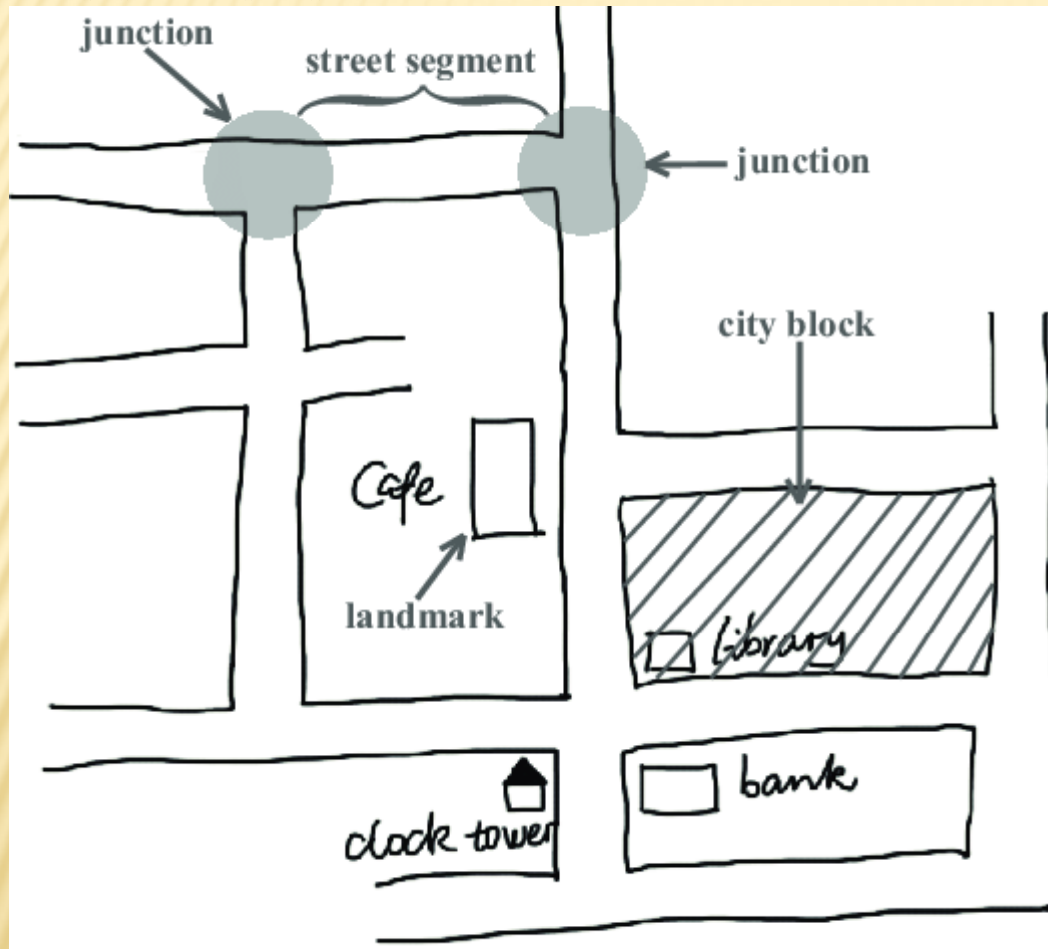


LEGEND

✗ Consider this map of a larger area with more details shown, if the symbols were not made and explained in a legend then it would have become very complicated to read.

✗ - A LEGEND is like a private dictionary for a map and it is very important part of a map. Whenever a map is to be made always the legend or index is decided first.

SKETCH



- ✗ A rough map without proper outlines, drawn without a scale and without proper signs and symbols, it is called a **sketch**.
- ✗ On the other hand, maps are used for a variety of purposes such as boundaries, climatic conditions, resources, population, transport, etc.
- ✗ **To accommodate lot of information on the map signs, symbols and colours are used to keep the map clean and informative.**
- ✗ Consider the example- the map shown here, is detailed with names written but, if it is for a big map, like in the previous slide, things could be very confusing and on top of that if you hold it the wrong way, you will never reach your destination.

- The rough SKETCH is drawn to show the directions to reach to place.
- **The diagram you draw roughly might not show the exact distance between source and destination.**

PLAN



- ✗ Sometimes, an accurate map of a very small area is drawn like a house, class, building, etc. it is called a layout plan.
- ✗ This plan shows measurements, positions of doors, windows, etc.
- ✗ Generally, a map represents a larger area than a plan.

E.g.

Map scale 1cm=100 km

Plan scale 1cm= 1m

WORKSHEET

QA. Choose the right answer:

1. Which one of the following maps shows a very large area with less details?
- a. Large scale
 - b. Thematic
 - c. Physical
 - d. Small scale

CHECK YOUR ANSWER: (d)

Remember: Scale has reciprocal relationship to the details of an area being depicted. A small-scale map covers a large area and provides few details about it.

2. Which one of the following is not an example of a map?
- a. Thematic
 - b. Physical
 - c. Political
 - d. Statement

CHECK YOUR ANSWER: (d)

Answer: A statement does not fall in this category.

Q3. Which of the following is not shown on a relief or physical map?

- a. Mountains
- b. Rivers
- c. Crops
- d. Valleys

CHECK YOUR ANSWER: c

Remember: Crops are not a part of physical maps, as they are not a geographical feature.

Q4. The maps showing distribution of crops are _____ maps.

- a. small scale
- b. physical
- c. thematic
- d. political

CHECK YOUR ANSWER: c

Explanation: Crops are depicted on thematic maps according to their production, varieties and areas under cultivation.

Q5. Which of the following is not a part of a map drawn on a flat surface?

- a. Globe
- b. Scale
- c. Directions
- d. Conventional symbols

CHECK YOUR ANSWER: a

Explanation: Globe is a spherical representation of the Earth. Thus, it is not drawn on a flat surface.

Q6. Which of the following is not an intermediate direction?

- a. North-south
 - b. South-east
 - c. North-east
 - d. North-west
-

CHECK YOUR ANSWER: a

Q7. The blue colour on the map shows

- a. clouds
- b. water bodies
- c. glaciers
- d. plains

CHECK YOUR ANSWER: b

Explanation: Blue is synonymous with water. Thus, the colour blue is used to depict water bodies on maps.

Q2. State True or False.

1. It is easy to draw an absolutely correct map of the world.

2. A map can be drawn even for a small area on the earth. _____

3. A map drawn without a scale is called a sketch. _____

CHECK YOUR ANSWERS:

1. This statement is false.

Reason: It is not easy to draw an absolutely correct map of the world because of the spherical shape and the large amount of details of the Earth.

2. This statement is true.

Reason : A large-scale map can be used to depict even a small area of the Earth.

3. This statement is true.

Reason : A map without a scale is called a sketch. A sketch is like blueprint of a map.