



Master Lesson Plan

For

Maps

Board	Standard	Subject	Chapter	Language	Reference Link	Creation Date
CBSE	STD VI	Social Science	Maps	English	Maps	2020-08

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Maps

1. MS_Objective_Maps

The students will be able to:

- explore the uses of maps and globe.
- explain the advantages and disadvantages of maps and globes.
- imagine how ancient the art of map making actually is.
- discuss the type of maps.
- evaluate the importance of direction.
- explain the two components of a map.
- recognise all the cardinal directions.
- explain the map scales.
- relate to how map making came to existence.
- calculate ground distances with reference to map scale.
- sketch map of an area.
- classify between a sketch and a plan.
- relate to the uses of google maps.
- conclude about the uses and helpfulness of maps.

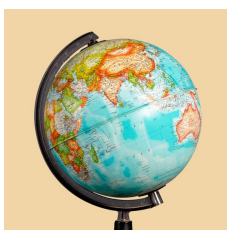
Time to teach	Asset Type	Theme	SubTheme
3 Minutes	Main Script	Maps	Thematic Maps, Symbols, S Maps, Plan, Physical Maps, Directions, Thematic Maps, Sketch, Political Maps, Plan Distance Directions

2. IQ_Globes and maps

Globes and Maps

Notes to the teacher-Teacher may enable the students to think and come out with as many answers as possible before giving out the right answer/ answers.

Q1. Look at the image of a globe below. What does the image remind you of ?



Answer:

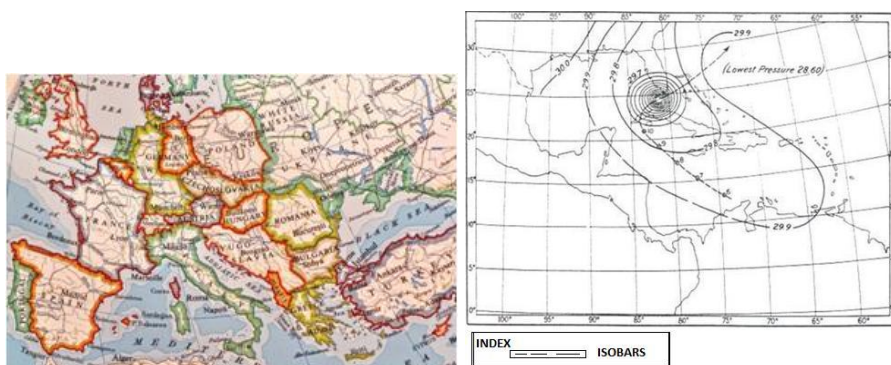
- It reminds us about the earth.

Q2. What does the image contain? Why do you think the image resembles earth?

Answer:

- It contains maps of countries and continents.
- The ball in the image is tilted like the earth and it is round like the shape of the earth.

Q3. Look at the images below. How do the two images resemble?

**Answer:**

- Both the images look like maps. One shows the countries and continents. The other image shows pressure conditions of an area.

Q4. Although both, maps and globes, represent countries and continents it is not possible for us to study rotation & revolution of the earth with the help of a map. Why do you think it is so?

Answer:

If we experiment with a globe to study rotation or revolution it will be easier as :

- we can find out the areas receiving direct and indirect sun rays with a help of light source.
- while if we use a map such difference will be impossible as it is a flat representation of earth and the variation of day and night will not be visible at all.



Image References:

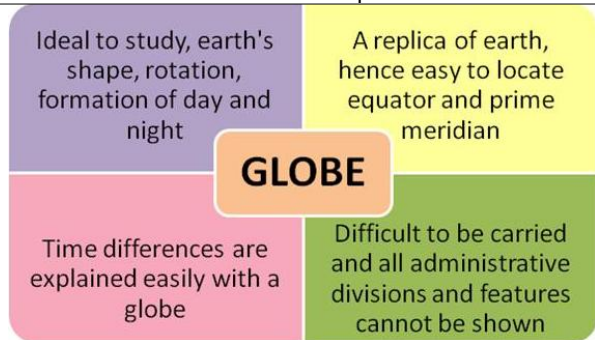
- SSSVV Gallery:
<https://www.srisathyaivaividyaahini.org/index.php/component/joomgallery/nature/animations/revolving-globe-1805.html>
- <https://pixabay.com/photos/map-europe-globe-countries-states-3483539/>
- https://en.wikipedia.org/wiki/File:1909_Florida_Keys_hurricane_weather_map.png

Time to teach	Asset Type	Theme	SubTheme
5 Minutes	Inquisitive Questions	Maps	Thematic Maps, Political Maps, Thematic Maps, Political Maps, Physical Maps

3. MS_ How can we compare maps with globes

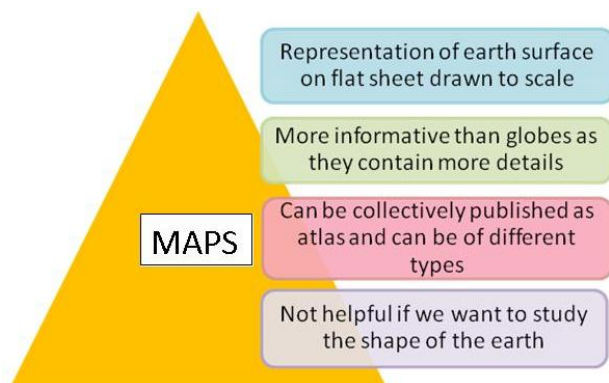
Globe – advantage and disadvantage

- Globes are ideal to study the earth as a whole.
- We can study the rotation of earth and formation of day and night with reference to the tilted axis of the earth.
- The globe is the replica of our earth and hence it also shows the exact shape of the earth.
- It is easy to locate the equator and prime meridian on a globe.
- Time differences of any place with reference to longitude can be easily studied with a globe.
- Globes are difficult to be carried from one place to another place.
- It is not possible to locate and study about divisions and subdivisions of administrative boundaries within a country.

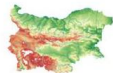


Maps - advantage and disadvantage

- Maps are representation of earth surface on flat sheet drawn to scale.
- Maps are more informative than globes as they contain more details about a place.
- Maps of different countries and continents can be collectively published as atlas.
- Map can be of different types based on what information they present.
- Maps are not helpful if we want to study the shape of the earth.



Comparison

	
Ideal for study of earth's shape and rotation	Not helpful if we want to study the shape of the earth
Replica of earth so easy to locate equator and prime meridian.	Contains more information in details.
Helps with understanding the time differences of different hemispheres	Representation of earth on a flat sheet of paper.
All administrative unit cannot be shown	All administrative units can be shown.
Difficult to carry from one place to another.	Can be collectively published as Atlas. So it is easy to carry.

Time to teach	Asset Type	Theme	SubTheme
10 Minutes	Main Script	Maps	Thematic Maps, Political Maps, Physical Maps, Thematic Maps, Plan, Physical Maps

4. IA_Chinese Map making

Chinese map making

Map making is one of the most distinguished, scientific and technological achievements of ancient China. It is an art, so ancient, that it is difficult to ascertain when it began.

Map making in China began in the 5th Century BC. Cartography in China was mainly related to the earth surface only.

- During the **Han dynasty** the map making was extended beyond the boundaries of the country.
- Maps of the Han Dynasty suggest that Chinese learnt the skill of map making during this period. Military maps made under Han dynasty however did not contain any map scale, map legend or any explanatory note.
- With the invention of compass the Chinese cartographers entered a golden age during the **Song Dynasty**
- Primitive maps, Classical maps and survey maps are the three phases in the development of Chinese cartography.
- Maps found belonging to the **Qin Dynasty** of warring states period depicted topographic features like mountains, roads, waterways etc. under the territory of the dynasty.
- Map making quality was improved during the Qin dynasty by development in unification of scale measurement and field measurement of meridian of the earth.
- **Yuan and Ming dynasty** witnessed making of different types of maps which suggested refinement in Chinese cartography. Maps like nautical charts, river maps for flood control, coastal defence maps, land defence maps, etc, were produced by Chinese cartographers with lot of accuracy.

Time to teach	Asset Type	Theme	SubTheme
5 Minutes	Interesting Asides	Maps	Thematic Maps, Political Maps, Thematic Maps, Political Maps, Physical Maps

5. MS_Various types of maps

Various types of maps

Maps are of different types depending on the type of information they convey.

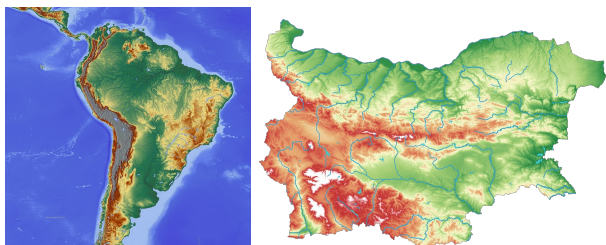
Physical Maps

Political Maps

Thematic Maps

Physical Maps :

- Shows features like mountains, plateaus, rivers, vegetation, mountain peaks, reservoirs, etc.
- Since they show the relief of the land they are also called relief maps.



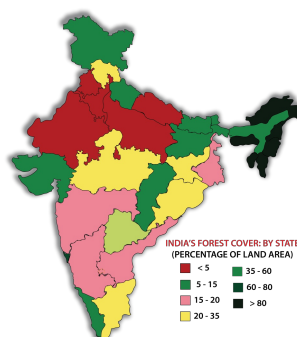
Political maps :

- Administrative divisions like cities, districts, countries, villages, etc., are depicted in these maps.
- Since they show the political divisions with boundaries, they are called political maps.



Thematic maps:

- These maps highlight a particular theme and so they are called **thematic maps**
- Maps showing rainfall pattern, soil types, vegetation types, road density, population density, railway network, etc are all thematic maps.

**Image references:**

Map with rivers_CC_ <https://pixabay.com/illustrations/bulgaria-map-natural-physical-1566785/>

South America_CC_ <https://pixabay.com/illustrations/south-america-amazon-brazil-andes-1804901/>

Maps of countries_CC_ <https://pixabay.com/photos/europe-map-1923-country-breakdown-63026/>

India forest cover map_CC_SSSVV Gallery_Maps

Time to teach	Asset Type	Theme	SubTheme
7 Minutes	Main Script	Maps	Types of Maps, Thematic Maps, Physical Maps, Types of Maps, Political Maps

6. IQ_Direction and symbols in a map

Q1. How do we generally relate green and blue colour with our environment?

Ans. Green colour for vegetation and blue colour for water.

Q2. In which direction is your school from your home?

Ans. Children would name one of the cardinal directions

Q3. What would happen if we create our own symbols for maps and refuse to use the universally accepted ones?

Ans. Maps are created for general use. So if we create our own symbols people will not be able to gather information from the map, as they will not know what information the symbols are trying to convey.

Q4. Imagine a map without indicating the north. How will the map help you to find a location or reach a destination?

Ans. Without a direction a map would be practically useless. We need the directions in a map so that we can find one place in relation to the other. Studying a map becomes easier with directions indicated in it.

Time to teach	Asset Type	Theme	SubTheme
5 Minutes	Inquisitive Questions	Maps	Distance Directions, Distanc

7. VC_We should always listen to our parents

We should always listen to our parents

A map is a representation or a drawing of the earth's surface or a part of it drawn on a flat surface according to a scale. There are three **Components of Maps – distance, direction and symbol.**

Children, the map in your life is the map you have drawn to proceed towards your goal and to achieve it.

1. Distance is the number of years taken approximately to reach your goal.
2. Symbols are the visual representations that help understand the map.
3. Now, what is 'Direction'? Who will direct you to your well being? The answer is, it is your parents, elders and teachers!! So, always respect and listen to them. Value their guidance and benefit from their experience and love.

STORY

Bobby and Debby were two sibling ducklings always racing and competing against each other.

One day, after visiting their grandmother Bobby told Debby, "let's start race to home" and immediately both started swimming. Debby was going much faster than Bobby and was developing a big lead.

Debby was swimming fast and suddenly he realized that he was heading towards a big current in the middle of the river. The current in the middle of the river was stronger. Even their mother had warned them never to swim in the middle of the river. Before he could realise what was happening, he was caught in the spin and unable to escape.

Mother Duck kept calling for help and, another friendly & bold duck from a nearby farm came to the river. Seeing Debby swallowing water, he waded in and rescued him. When Debby was brought to the shore, he was

giddy for quite some time. But he became alright soon.

From that day, onwards Bobby & Debby understood the importance of following guidance provided by parents and elders.

Dear Children,

- **Listen to your parents.**
- **Be obedient to them.**
- **They love you more than anyone else and have your best interests at heart.**

Time to teach	Value Type	Value Sub Type	Value Attribute
5 Minutes	Right Action		Stories

8. MS_ Direction and symbols as components of a map

Components of a map

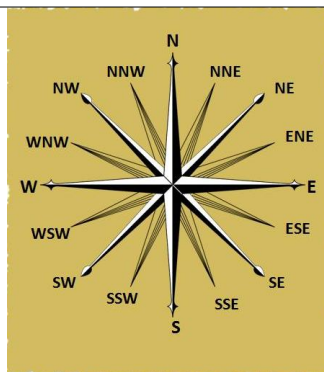
A map is a drawing or plan of the surface of the earth that shows countries, rivers, mountains, roads, etc. It is a symbolic representation of selected characteristics of a place, usually drawn on a flat surface. It represents the real world on much smaller scale.

Direction

It is the particular path which shows our destination. A map is incomplete without direction. North, South, East, West are the 4 main directions or the **cardinal directions**. North is at the top, south at the bottom, west to the left, and east is to the right. Other 4 intermediate directions are north-west, south-west, north-east, south-east.

We can also find out the directions through a compass. It is an instrument used for navigation and orientation. It shows the geographical cardinal directions. One of the most well-known instruments in finding directions is magnetic compass. It is a device that is used to find a direction by means of a needle that always points north.

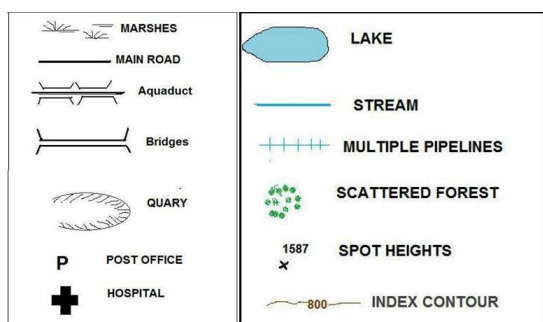
8 secondary inter cardinal directions :



Symbols

- It is also one of the most important components of a map.
- A map symbol is any graphic or visual sign or mark used on a map to represent, communicate and collect information about a geographical feature.
- It is regarded as a universal language and it is internationally agreed that these symbols will be called **conventional symbols** for maps.
- The symbols used on a map are usually defined in the map's legend and thus they convey information in limited space.
- Symbols are part of the sign language of the map as it is not possible to draw the actual shape, size of features like water bodies, bridges, constructions, etc.
- Different letters, shapes, colours, images, drawings, etc., are used to denote the features of a map, e.g., blue for water bodies, brown for mountains, yellow for plateau and green for plains.
- Most of these symbols are conventional signs that are understood by the entire world.

Some symbols are shown below:



Reference URL for Images:

Compass rose_CC_ <https://pixabay.com/vectors/wind-rose-compass-direction-34559/>

Chart Paper_CC_ <https://pixabay.com/vectors/paper-rag-sheet-torn-153515/>

Time to teach	Asset Type	Theme	SubTheme
10 Minutes	Main Script	Maps	Symbols, Distance Direction Distance Directions

9. SA_ Map Interpretation

Aim: The students will learn how to interpret a map and identify the objects in a map with respect to direction.

Material Required:

- Notebooks
- Pen, pencil, eraser
- Colour pencils/ colour pens

Settings of the activity: Classroom

Type of Activity: Project

Procedure:

- The teacher will show a map to the students and ask them to observe it carefully.
- The teacher will ask the given questions related to the map.
- The students will read the map carefully and answer the questions by writing the answers in their class note book.
- For map 2, the students will also draw the symbols while answering the questions.
- It will be an individual activity.

Map 1



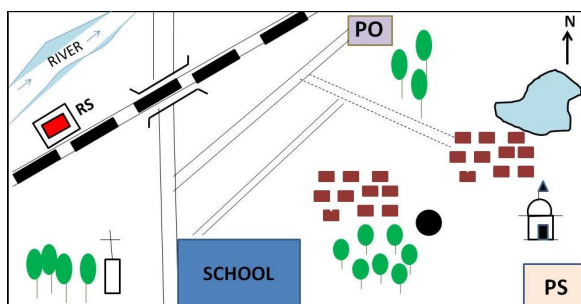
Questions based on **map 1**

- What does the green colour of the map indicate?
- In which part of the map do we find it more?
- In which part of the map do we find a large water body?
- How is it related to the green patches in the map?
- What is the scale of the map?

Answers

1. Vegetation
2. Northern
3. North Western and north eastern
4. Water body provides moisture for vegetation
5. 1:50,000

Map 2



Questions based on **map 2**

- What are the two religious places shown in the map?
- What is the direction of the flow of the river?

- On which side of the railway line is the railway station?
- What type of railway line do you see in the map?
- Other than the river what are the sources of water for the place shown in the map?
- In which part of the map do you find the police station?

Answers

1. Temple and church
2. North west to north
3. Left side
4. Broad Gauge
5. Well and Tank
6. South east part

Observation: Students will have more clarity about what a map conveys and will be able to interpret a map easily.

Conclusion: Students will be adapt the technique of map interpretation.

Instruction To Teacher:

- It will an individual activity.
- The activity will be taken up after the students have learnt about the components of a map.
- For map 2, the students will also draw the symbols while answering the questions.
- The two maps will be displayed one by one and the students will answer the questions in their notebooks.
- A worksheet may be given at the end of the activity as homework.

Worksheet

- Draw a map to of your locality showing the direction of your school, market, dispensary/ hospital and post office from your home.
- Show the following conventional symbols as represented in a map.

Mosque, Meter gauge railway line, Plantation, Grass, Trees, Post & telegraph office.

Image reference :

<https://www.flickr.com/photos/134017397@N03/48553179136>

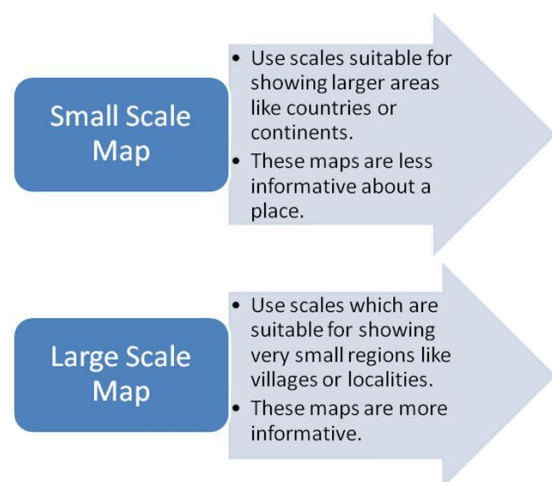
Time to teach	Asset Type	Theme	SubTheme
15 Minutes	Suggested Activity	Maps	Symbols, Distance Direction Distance Directions

10. MS_Map Scale or Distance in a map

A **Map** shows the various locations of an area. The world is reduced to a smaller scale so that it can easily be represented on a piece of paper. The actual distance between two places on the ground is represented on a paper by a smaller distance. The ratio between the actual distance on the ground and corresponding distance on the paper is referred as **Scale of a map**.

For example: If the actual distance between a market place and a residential area is 14kms on the ground and it is represented by 2cms on the map then the Scale of the map would be 1cm on paper represents 7 kms of ground distance.

Type of Maps based on scales can be :



Examples

Small scale Map: – **Small** scale maps use scale like 3 cm = 300 kms

Large scale Map:–. **Large** scale maps use scale like example 3 cm = 300mts.

Time to teach	Asset Type	Theme	SubTheme
15 Minutes	Main Script	Maps	Thematic Maps, Political Maps, Thematic Maps, Political Maps, Physical Maps

11. DD_Uses of Google maps

Uses of Google Maps

Google maps is a web mapping service. It is developed by the American company Google. It offers various satellite images, street maps and 360° panoramic views of street, real time traffic conditions and route planning for traveling by foot, car, bicycle or public transportation.

Uses:

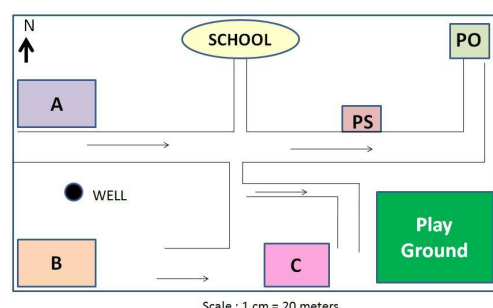
- Google maps are widely used by **food delivery business**. The delivery person sees the shortest route in the Google maps and delivers the orders within specified time.
- Through Google maps we can **investigate the history of our local area or far-off destination**. We can know about the culture, customs and literature of a place. We can explore the entire world from our room.
- If we get stuck in traffic, we can use Google maps to **find shortest route** to our destination.
- We can also **know the time and distance** it will take to reach our destination, whether by foot, car, bicycle or any other mode of public transport.
- No place is unknown to us. If we go to any tourist place, we can **find out the nearby places to visit**, through the Google maps.
- Google weather maps also update us with **accurate weather conditions**.

Time to teach	Asset Type	Theme	SubTheme
5 Minutes	Day-to-day Relevance	Maps	Distance Directions, Distance

12. MS_Calculating with map scales

Calculating With Map Scales

Map scale is the ratio of distance on the map and corresponding distance on the ground. Distance on the ground is generally converted to measurable distance on paper. Let us see how we calculate map distances with map scale to understand the corresponding distance on ground.



Explanation with the above map:

Q1. House **A** and House **C** are **12 cm apart** in the map. Calculate the ground distance between the two houses?

Solution :

Since the map scale given is **1 cm = 20 mtrs**, therefore 12 cm on paper would represent

20 X 12 = 240 mtrs on the ground.

Thus, the distance between house A and house C would be 240 mtres on the ground.

Q2. Distance from the play ground to the school is 80 meters in reality. What is the distance between school and playground on the map?

Solution:

The map scale is **1 cm = 20 meters**.

Since the ground distance is given as 80 meters, the distance on the map between school and the play ground would be

80 meters ÷ 20 meters = 4 cms.

Thus, the distance between the school in the map and the play ground would be 4 cms on paper.

Another Example:

A map has a scale of 1 cm = 2500 mtrs. How much distance on the ground in kms will 10 cm of paper distance represent?

Solution:

Map scale is 1 cm = 2500 mtrs

10 cms on map would be 2500 X 10 = 25000 mtrs on the ground.

Since 1 km = 1000 mtrs,

25000 ÷ 1000 = 25 kms

Thus the map distance of 10 cms would represent 25 kms on the ground.

Image Reference :

OC_chandranidebhaumik@gmail.com

Time to teach	Asset Type	Theme	SubTheme
10 Minutes	Main Script	Maps	Thematic Maps, Political Maps, Distance Directions, Political Maps, Physical Maps, Directions

13. IA_Origin of Cartography

Origin of Cartography

Maps are fundamental tools for helping the human mind make sense of its universe at different scales. They are undoubtedly one of the oldest forms of human communication.

Mapping-like painting and wall carvings precedes both written language and systems involving number. Maps did not become everyday objects in many areas of the world, until the European Renaissance.

- The ancient Greek and Romans were known to have made a map of the world from the time of **Anaximander**. Anaximander is believed to have drawn the first world map which was published. He believed that the inhabited portion of the earth was flat and was part of the top portion of a cylinder.
- The 8th century scholar **Bhavabhuti** conceived paintings which indicated geographical regions.
- Captain James Rennell** is considered as the father of oceanography and is considered as the first person to make the some accurate outlines of map of India in 1783.
- Early forms of cartography were practiced on clay tablets and cave walls.
- Cave painting and rock carvings** used **simple visual elements** that may have aided in recognizing **landscape features**, such as **hills or dwellings**. These were used to navigate the areas they showed and to portray the areas that the people visited.
- Maps in Ancient Babylonia** were made by using **accurate surveying techniques**. Babylonian World Map is the **earliest surviving map of the world**.
- Ancient Egyptian cartography showed an emphasis on geometry and well-developed surveying techniques**, perhaps stimulated by the need to re-establish the exact boundaries of properties after the annual Nile floods.
- Early Indian cartography had a **little knowledge of map scale** and they **highlighted important places by enlarged size compared to others**.

Time to teach	Asset Type	Theme	SubTheme
5 Minutes	Interesting Asides	Maps	Thematic Maps, Political Maps, Thematic Maps, Political Maps, Physical Maps

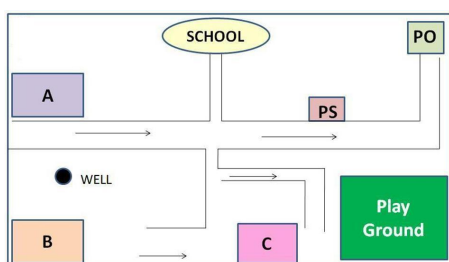
14. MS_How sketches differ from plans?

Sketches and plan are drawing, created to give us clarity about a place or a location or a structure.

There are some striking differences between the two.

Sketches

- Drawing based on memory and observation.
- A rough drawing to give idea about a location of a place or area.
- Sketches are not drawn to scale.
- We generally use sketches to demonstrate routes, location, addresses, etc.



Plans

- Small area is shown using large scale.
- Detailed information is shared in a plan.
- When we construct a building we need plan with details like length and breadth of the rooms, doors and windows, etc.
- It is a drawing which is based on calculated measurement.
- Plans may also be made for an administrative unit like a city or a town.



Image reference:

<https://pixabay.com/photos/building-plan-floor-plan-354233/>

Time to teach	Asset Type	Theme	SubTheme
5 Minutes	Main Script	Maps	Sketch, Plan, Sketch, Plan

15. SA_ How is a map different from Sketch?

AIM: Students will develop the idea of map making and preparing sketches

Settings of the activity: Classroom

Type of Activity: Project

Resources Required

- Chart paper
- Pen
- Pencil and sketch pens
- Scissors, gum, Measuring Scale.
- Tracing paper
- Notebooks.

Procedure:

- The teacher may conduct this activity as individual activity or group activity.
- In case it is a group activity students may be divided into groups of two.
- The students will trace out or draw a physical map of any country or a continent with the help of atlas. They will show features like mountains, seas, vegetation, etc.
- They will draw the map on the left side of the chart paper.
- The cardinal directions, scale of the map must be mentioned.
- On the right side of the chart paper, they will prepare a sketch of the route from their house to their friend's house.
- In the sketch they will give details of the locality like roads, junctions, landmarks, etc. The teacher should observe whether the map and sketch are correctly made and signs and symbols in the map are correctly used.

- Some chosen accurate maps may be displayed in the class display boards for reference as well.

Observation: The maps will be made accurately with correct symbols and sketches will be drawn with details in it.

CONCLUSION: The students will learn to read maps and recognize the map symbols correctly and draw sketches.

Instruction to the Teacher:

- Teacher will observe the activity and help students if necessary.
- The teacher will choose some maps for display in the classroom.
- Worksheet may be given as homework or at the end of the activity if time permits.

Worksheet

Q1. Draw a sketch of your school compound.

Q2. Fill up the blanks.

- A plan is drawn on a _____ scale. (ans: large)
- A _____ drawing of an area can be called a sketch. (ans : rough)
- Maps contain _____ symbols. (ans: conventional)

Time to teach	Asset Type	Theme	SubTheme
20 Minutes	Suggested Activity	Maps	Symbols, Sketch, Plan, Dist Symbols, Sketch, Plan, Dist

16. QA_Maps - A Recap

1. Give very short Answers for the following :

- What is half of a sphere called?

Ans) Hemisphere.

- Which imaginary line divides the Earth into the northern and southern hemispheres?

Ans) Equator.

c) What are the four cardinal directions?

Ans) North, South, East, West.

d) Which map shows the elevation, vegetation or some other physical features of the land?

Ans) Physical Map.

e) Which map shows the areas in which people live?

Ans) Population Map.

2. Choose the right answer:

a) Which of the following is not a cardinal direction?

Options:-North, West, East, South East.

Ans) South East

b) Which of the following is not an ocean?

Options:-Indian, Atlantic, Mediterranean, Arctic.

Ans) Mediterranean.

c) What gives us a round view of the world?

Options:- Globe, map, Map projections.

Ans) Globe.

d) Which map shows us the types of things that are grain, raised, or mined in a certain place?

Options:- Mineral Map, Thematic Map, Physical Map, Product Map

Ans) Product Maps.

3. Answer the following questions: -

A. What do you mean by the term, the scale of the map?

Ans) The scale of the map is a measuring line with the help of which correct distance between various points on a map can be measured.

B. How do maps help us?

- Maps show natural features of the earth like mountains, rivers, forest, oceans, etc.
- Maps also show location of different countries, continents, states, cities, town, and village with their boundaries.
- Some maps show specific information like-road maps, maps showing distribution of rainfall, temperature, forest, industries, reserve forest, etc.

C. How is the Globe useful to us?

Ans) It shows the distribution of land and water on the surface of the Earth. It also shows the correct shape, size and location of the continents and oceans on Globe. It promotes visual accuracy.

D. Fill up the blanks:

- i. In maps, blue colour is used for _____.
- ii. A compass is used for showing _____.
- iii. A map and a plan, both uses _____.
- iv. _____ symbols were universally accepted internationally.
- v. Letter **N** with an arrow is found at the _____ corner in a map.

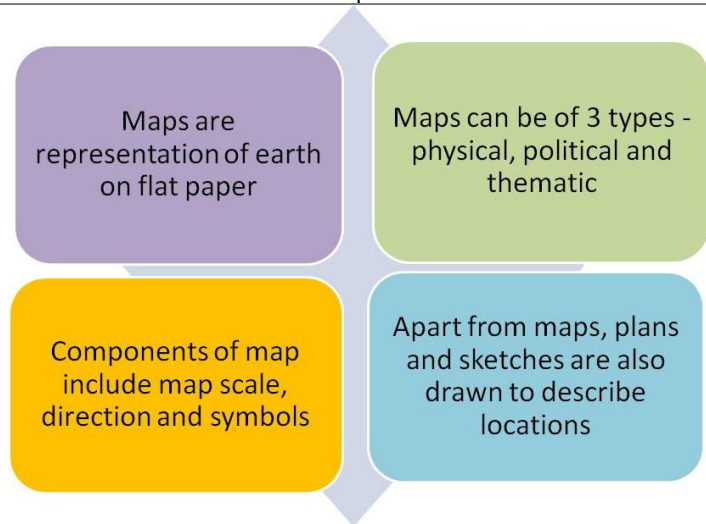
Answers:

- i. Water bodies
- ii. Directions
- iii. Map scale
- iv. Conventional
- v. Upper right

E. Draw the sketch of the route to a market from your house.

Time to teach	Asset Type	Theme	SubTheme
15 Minutes	Assessments	Maps	Thematic Maps, Symbols, S Physical Maps, Thematic M Sketch, Plan, Physical Map

17. MS_Summary_Maps



Time to teach	Asset Type	Theme	SubTheme
3 Minutes	Main Script	Maps	Types of Maps, Thematic Maps, Sketch, Political Maps, Plan Distance Directions, Types of Thematic Maps, Symbols, Symbols, Maps, Plan, Physical Maps, Directions