

TOPIC OUTLINES

There will be 3 Strands covered;

1. GEOGRAPHICAL SKILLS AND IDEAS

- ❖ Geographical Skills
- ❖ Geographical ideas
- ❖ Conducting a practical field work/ Research activity with consultation

2. PHYSICAL GEOGRAPHY

- ❖ **LIVING WITH NATURAL HAZARDS**
 - Tropical Cyclone
 - Earthquake

3. CULTURAL GEOGRAPHY

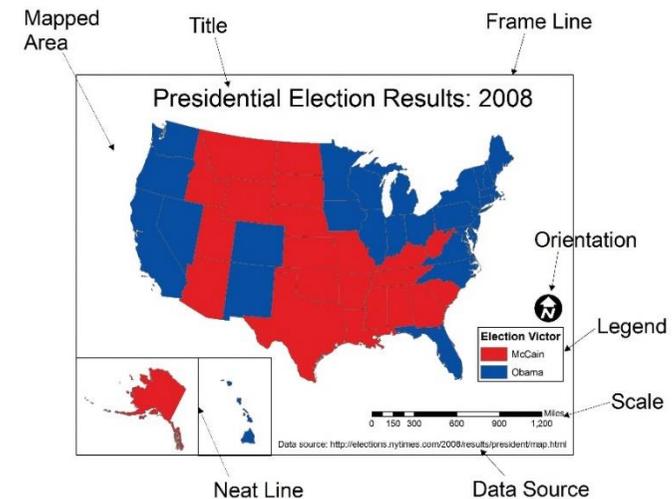
- ❖ Consequences of Population Growth
- ❖ Challenges of Urbanization and Urban Environment
- ❖ Geography perspectives on Tourism

MAPS

What a map is?

Maps are plans, drawings or representations of parts of the earth's surface, usually drawn on a flat surface. Maps presents information about the world in a simple, visual way. They teach about the world by showing sizes and shapes of countries, location of features and distances between places. Maps can show distributions of things over Earth, such as settlement patterns. They can exact locations of houses and streets in a city neighborhood.

A good map should have all or most of the following (think **BOLTSS** to help you remember)



Cartographers – people that make maps professionally

Symbols on maps are used to represent features such as towns, roads, rivers and vegetation.

TYPES OF MAPS

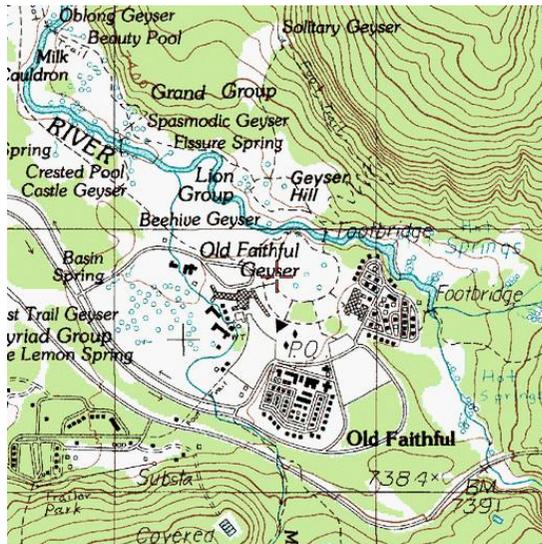
1. Topographic Map

A topographic map is about the land. It shows the features of the land. The distinctive characteristic of a topographic map is the use of elevation contour lines to show the shape of the Earth's surface. Elevation contours are imaginary lines connecting points having the same elevation on the surface of the land above or below a reference surface, which is usually mean sea level. Contours make it possible to show the height and shape of mountains, the depths of the ocean bottom, and the steepness of slopes.

Topographic maps also show many other kinds of geographic features including roads, railroads, rivers, streams, lakes, boundaries, place or feature names, mountains, trails, buildings, towns, mountain elevations, and survey control points and much more.

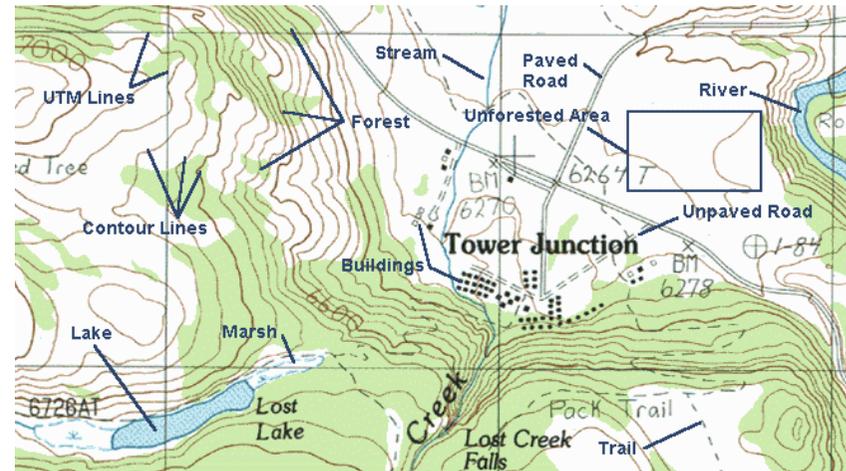
Features can be:

- i. **Cultural features** = made by men such as roads
- ii. **Natural features** = made by nature such as rivers



Activity

Study the map below and use it to answer the questions below.



- a. Name/ identify 2 cultural features.

- b. Name/ Identify 2 natural features.

- c. The thin broken lines shows _____

- d. The area which shades green is _____

- e. The thin blue line shows _____

2. Précis Map

A précis map represents the locations of different categories of information, for example vegetation type.

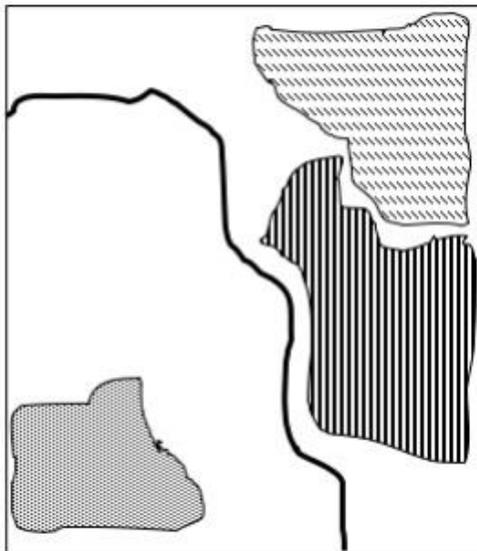
An example of a précis map:

You can see that it is focusing only on one feature (vegetation type)

You could be asked questions like:

- What is the vegetation type to the west of the river? (Grasslands)
- Why do you think the tropical rainforest is located where it is? (It's close to the river – access to water)

Vegetation précis map for location ABC

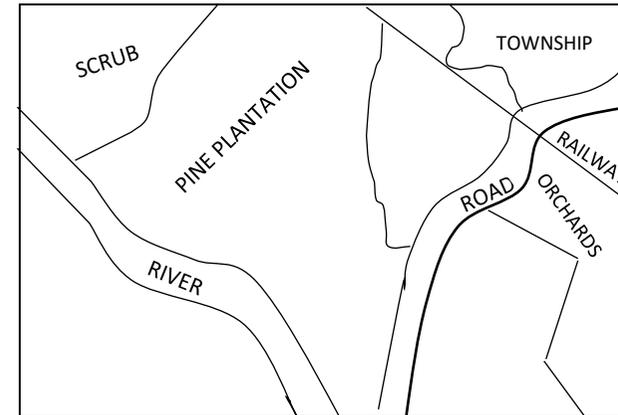


-  Dry sclerophyll forest
-  grasslands
-  Tropical rainforest

You wouldn't normally find these vegetation types so close together – it is just an example

Activity

- Li was asked to find the following on a map and put them onto a précis map. Color the features on Li's précis map.



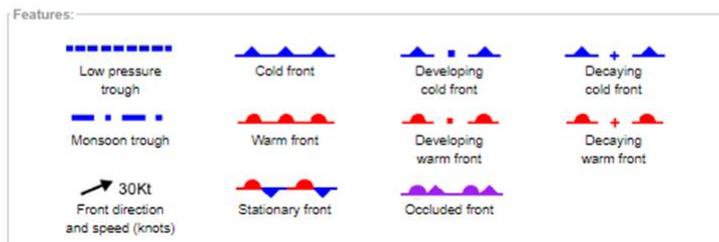
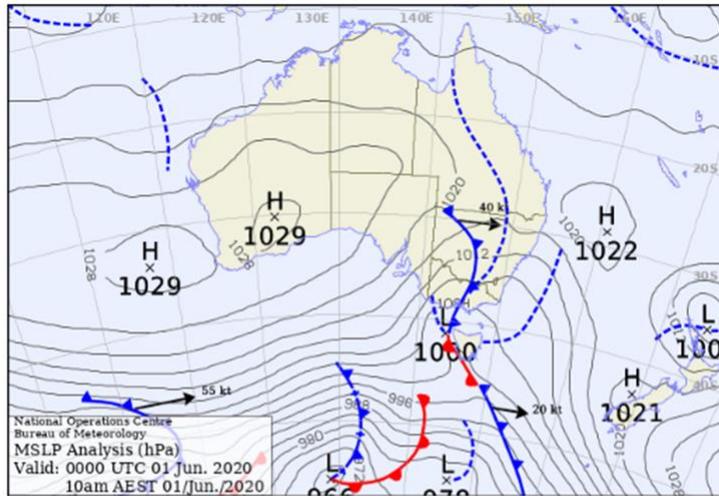
- Pine plantation (light green tree symbols)
- Township (pink)
- Scrub (scrub symbol on dark green)
- Road (red)
- Orchards (green dots)
- river (blue)

- Li has located and placed all the features correctly on his map but made five mistakes with his map. List the mistakes.

- _____
- _____
- _____
- _____
- _____

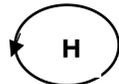
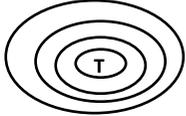
3. Weather Map

A weather map is a map that displays a variety of meteorological features to be used in research and weather reporting and forecasting. They do this by studying what is happening what is happening in the atmosphere. They use satellite images, radar images, weather balloons, computers, statistics and instruments such as barometers, wind and rain gauges.



Atmosphere:

- is the layer of gases that surround the world
- is called air by humans
- can't be felt by humans but does have weight
- puts pressure on earth
- has its pressure measured by a barometer
- has its pressure measured in millibars (mb) or hectoPascals
- has its pressure shown on weather maps as lines called isobars.

Special symbol on a weather map		
Anticyclone  High pressure system usually brings fine and calm weather, wind goes anticlockwise	Isobar  A line joining areas of equal pressure: isobars close together means wind	Tropical Cyclone  Very low pressure zone, winds go clockwise, brings lots of rain.
 Low pressure system usually brings weather, wind goes clockwise.	 Low pressure means bad weather, high pressure means good weather. Pressure is measured in millibars (mb)	
Front (marks the boundary between warm air and cold air)		Winds
 Cold front: often bring rain	 warm front: brings dizzle	 Southwesterly  Northerly
 occluded front: cold front catches up with warm front, often brings long rainy sessions	 stationary front: no movement of air, brings long continuous rainy sessions	Winds are named after the direction from which they are blowing: a wind blowing from the southwest is called a south-west wind or southwesterly, while a wind is blowing from the north is called a north wind or a northerly Fast wind are shown by isobars close together, slow winds are shown by isobars far apart

Activity

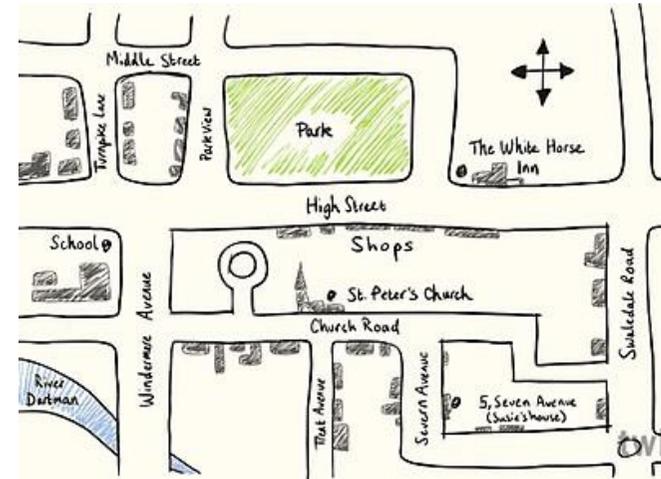
Complete the sentences below

- The L stands for _____
- The H stands for _____
- The name for lines with numbers on them is _____
- The interval between each measurement is _____
- The name for the measurement is _____
- The 2 types of front shown are _____ and _____
- The 2 types of front not shown are _____ and _____

4. Sketch Map

Sketch maps are simple drawings of the landscape. They show things that are sometimes hidden in photographs or maps, eg. the impact of tourists on a landscape.

Sketch maps may be shown as a bird's-eye view or as a drawing of the horizon. They can be drawn whilst on fieldwork or from a photograph. It is useful to annotate sketch maps or include a photograph alongside it.



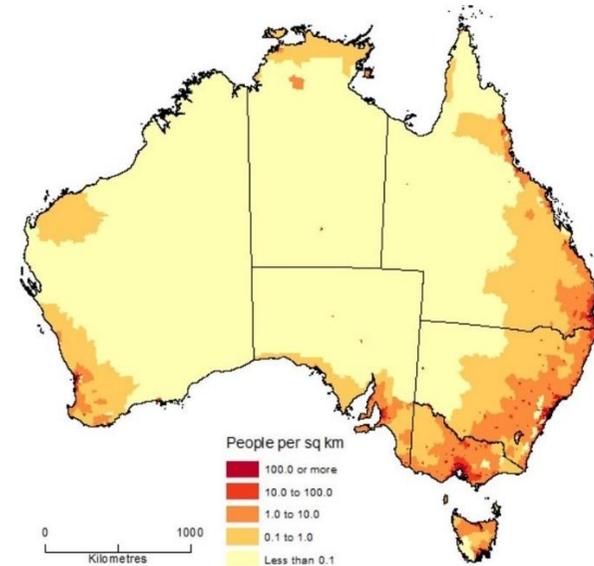
5. Choropleth Maps

A Choropleth map is used to show places that have

- the same thing, such as people living there (population)
- different amounts of that thing, such as China having a bigger population than Singapore.



Activity



1. Write **T** if the statement is true and **F** if the statement is false.

- _____ a) Population is spread unevenly over the country
- _____ b) More people live in the west than in the east
- _____ c) Most people live around or near the coast

❖ Features/ Elements of a Map

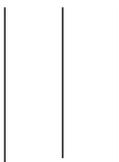
BORDER
ORIENTATION (Compass)
LEGEND (Key)
TITLE
SCALE
SOURCE
NEATNESS
ACCURACY

A good map should have these elements

Grid Lines, grid and area references

A grid on a map is a set of parallel lines going up and down and across.

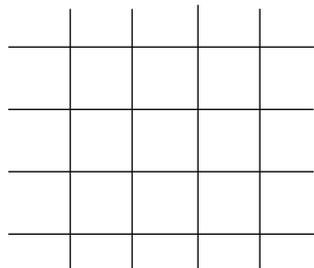
Vertical grid lines go this way:
 Vertical lines are called ***eastings***



Horizontal grid lines go this way:
 Horizontal lines are called ***northings***

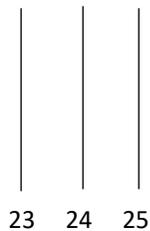


Together, vertical and horizontal lines make a grid pattern like this:

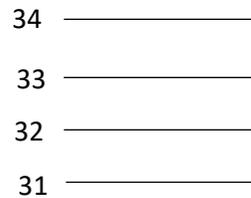


Grid lines are numbered so you can look up the grid reference for a place and use them to find the place quickly.

Vertical easting
 lines are numbered from left to right – from west to east.



Horizontal northing
 lines are numbered from bottom to top – from south to north.

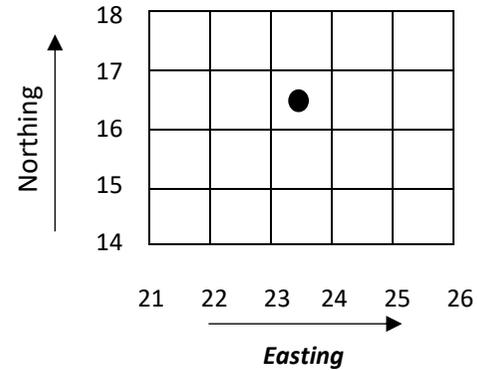


There are **TWO** types of grid references

- i. Four grid reference***
- ii. Six grid reference***

The first 3 figures are for the easting

The other 3 figures are for the northing



The black dot is half way between 23 and 24 easting. So its easting reference is 235. (The distance between 23 and 24 is measured in tenths.) The red dot is right on the 16 northing line so its reference is 015.

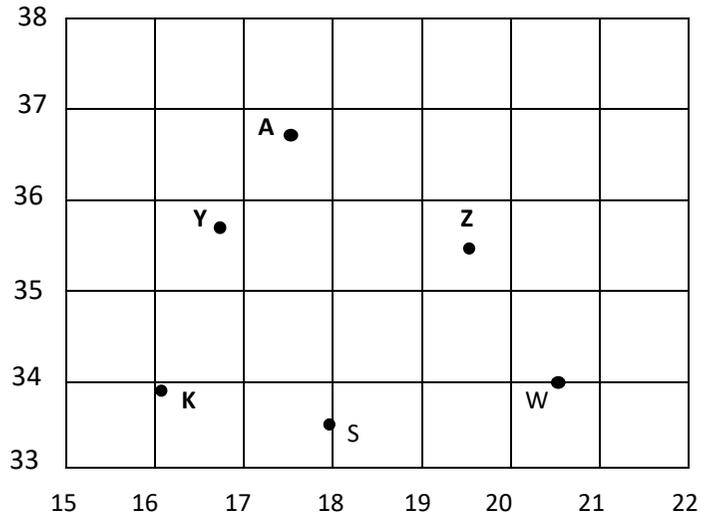
This means the full grid reference for the red dot is **235165**.

Note

Cartographers do not print these extra lines on maps – it is up to you to make an estimate.

Activity

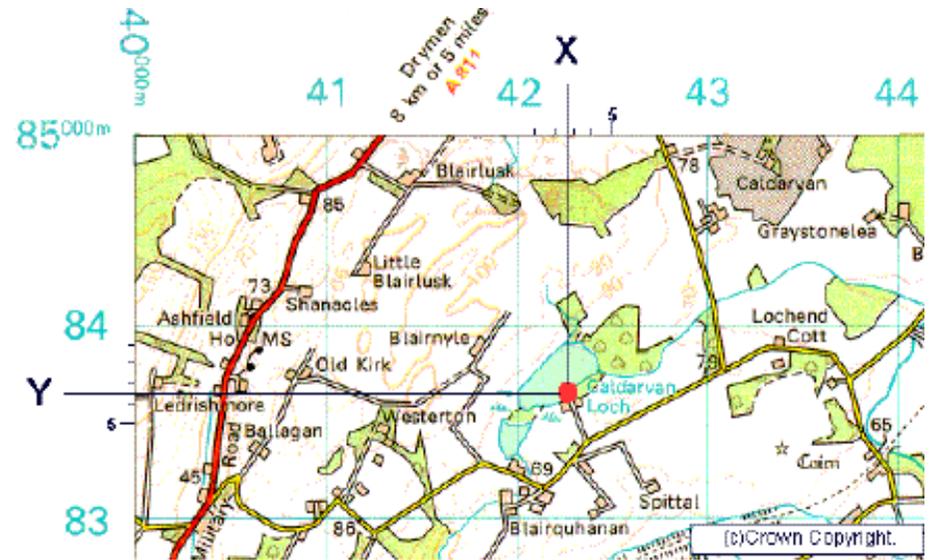
Use the diagram below to answer the question below.



1. Give the location of these features using 6 figure grid reference

- a. K - _____
- b. Y - _____
- c. A - _____
- d. Z - _____
- e. W - _____
- f. S - _____

2. Study the map below and answer the questions below.



a. Name/Identify the features found on the following grid reference.

- i. 427832 - _____
- ii. 408837 - _____
- iii. 434839 - _____
- iv. 412844 - _____
- v. 408842 - _____

b. Circle the grid reference that do not contain building.

414848 438846 408843 407833

SCALE AND DISTANCE

Scales are used to measure distance on a map or real life is a fundamental skill in studying maps. The way how to show how much smaller a map is than the actual area is to use scale.

A scale on a map shows what proportionate size has been used to make the map.

Scale on a map shows you

- * How big the map is in comparison to the real place (every centimeter on this map means 100km on the ground)
- * **Distance** – how closer or far apart places are
- * **Time** – how long it might take you to get to a place.

There are 3 types of Scale

i. Words/ Statement

Example: one centimeter = one kilometer

This means that 1cm on the map is the same as 1km on the ground

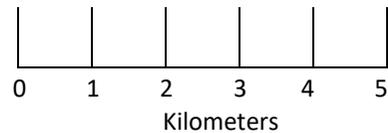
ii. Ratio/ Representative Fraction

Example: 1:100 000

This means that 1cm on the map is the same as 1km on the ground because the map is 100 000 times smaller than the place

iii. Line/ Linear Scale

Example:



This means that 1cm on the map is the same as 1km on the ground

Activity

Use the map below to answer the following question.



1. Identify the types scale used on the map.

2. Use the scale to calculate the distance between these places. Give your answer in kilometers (km).

i. Wuhan – Taipei _____

ii. Guangzhou – Ningbo _____

iii. Beijing – Chengdu _____

iv. Shanghai – Xi'an _____

Teacher: Faka'anaua Moala

Contact #: 7719081 (call only when you have questions regarding the topics and activities given.)