GRADE 9 MAPWORK

CONTOUR LINES
CONTOUR LINES

• Contour lines connect places of equal altitude
• Contour lines depict various landforms on a map
• By “reading” the contour lines we can determine what the terrain in an area looks like.
Contour interval: The height difference between successive contour lines.

On 1:50 000 Topographic maps the contour interval is 20m.

Contour interval: 20m
GRADUAL SLOPES

• The further apart the contour lines, the more gradual the slope.
INDEX CONTOURS

• To make it easier to read the terrain, DARK brown index contour lines are drawn on the map.
• These contour lines are always multiples of 100m
STEEP SLOPES

• The closer the contour lines are together, the steeper the slope
UNIFORM SLOPES

- When the contour lines are evenly spaced, the slope is uniform.
- IE: the gradient of the slope remains the same.
CONCAVE SLOPE

• The slope is gradual at the base but becomes steeper close to the summit.
CONVEX SLOPE

- The slope is steep at the base, but becomes progressively more gradual closer to the summit.
TERRACED SLOPE

- A terraced slope resembles “steps”.
- The terraced slope has alternate steep and gradual sections, creating large “steps”
- Terraced slopes may be natural – alternate hard and soft rock layers
- Terraced slopes are sometimes created by farmers in order to create level areas of land to cultivate crops along.
LANDFORMS

• The way in which contour lines are arranged, allows us to identify certain landforms and features in the terrain.

• Using the basic principles of slope, shape and altitude, it is possible to identify a wide range of physical landforms on maps.
KOPPIE or HILL

- A koppie is a low, free standing hill.
- In its most basic form, a koppie will be represented by concentric rings of contour lines.
A BUTTE is a hill that has a very steep section just before the crest, and a relatively flat top.
MESA

• A MESA (tabletop in Spanish) is an elongated version of the butte.
• It’s length is generally greater than it’s height.
SADDLE

• A low lying area between two peaks.
• Resembles a typical riding saddle, hence the name.
VALLEY AND SPUR

• VALLEY
  – Low lying area carved by flowing water.
  – Usually surrounded by high lying areas known as spurs or interlocking spurs.
VALLEY

• A valley may be identified in the following manner:
  – The sharp “V-shaped” contours point towards higher ground.
  – A valley usually has some form of river or stream present.
The spur is the higher lying ground adjacent to the valley.

Spurs are identified as follows:

- The rounded “U-shaped” contours point towards lower ground.
- Spurs will not have rivers present.