Grade 11: Work that needs to be **revised** for the half year examinations. 22nd May 2017.

Paper 2 is the Mapwork covered and will be of 1½ hr duration.

Paper 1.

The examination paper comprises two sections, namely, **Section A** and **Section B** and has a **2½hr** slot in the June examination time table.

Each section is out of 150 marks.

Section A.

The following work must be revised:

1) **The earth's energy balance**.
    a. The position of the sun relative to the tropic of Cancer, Capricorn and the Equator. This relates to a shift in the location of the ITCZ (Tropical front) = energy and the other global pressure cells.
    Understand the concepts **Solstice** and **Equinox** and the dates on which they occur.
    b. The distribution of energy between the tropics (surplus) and the Polar Regions. (deficit)
    Understand the influence / role of ocean currents and air masses on the distribution of energy.
    c. Make sure you understand the meaning of **Pressure Gradient Force** (PGF) and its effect on wind speed. (Remember the spacing of the isobars.)
2) **Global circulation.**
    a. The Tri-cellular cells. Hadley /Tropical; Ferrell / Mid-latitude cell; Polar cell.
    b. Make sure you understand the formation of the permanent cells at 0°, 30°, 60° and 90° (N and S of the equator). You must be able to draw the movement of air particles within cyclones and anti-cyclones.
    c. The importance of Coriolis Force (CF) in the horizontal movement of wind in the three cells on either side of the equator.
    d. The name of the winds located within the cells.
3) **Regional and local winds.**
    a. Monsoon winds.
    b. Hot dry winds, such as the Föhn and the Berg winds. Understand how these hot, dry winds are formed.
4) **Africa's weather and climate**.
    a. Focus on the Location of the ITCZ and its influence on the rainfall within the tropics. Air masses that are important: cT = continental Tropical; mT = maritime Tropical
    b. The location of the sub-tropical high pressure systems (STH) needs to be understood.
    c. The influence of the ocean currents on Africa's climate.
    d. El Niño and La Niño and how they affect South Africa's weather.
5) Droughts and desertification.

Section B.

1) The way secondary disturbances form part of the primary / global circulation.
2) Synoptic weather maps:
    Cyclones: coastal lows, thermal lows, convection thunderstorms, line thunderstorms.
    Anticyclones: South Atlantic, Kalahari and South Indian High,
3) Mid-latitude cyclones. (Formation, Mature and occlusion).
    Understand the influence cold fronts have on the Western Cape's weather during winter.
    Be able to draw cross sections of the various fronts.
4) Tropical cyclones:
    a. Location
    b. Formation and the hazards of these disturbances
    c. Dissipation
5) Factors influencing the climate of South Africa.
6) Tertiary circulation: valley and climate.

JHD / 2017.