**LESSON NOTE 1**

| **MEASUREMENT OF DIRECTION**  The direction of one place or object from another is expressed by means of compass point or cardinal point.  The four main directions of the cardinal points are the North, South, East and West.    Fig. 1: The four cardinal points  For better accuracy in the measurement of direction, eight cardinal points are used. These are the North, North-East, North-West, South, South-East, South-West, East and West.    Fig.2: The eight cardinal points  There are also the 16 cardinal points but this is used at advanced level.  **Methods of Measuring Direction on a Map**  a. Locate the two points or places involved on the map, let’s say, Awka and Enugu  b. Place your cardinal point at Awka because you are looking for the direction of Enugu from Awka  c. Using your ruler, join Awka to Enugu with a straight line and check which of the eight cardinal points that falls on the line.  d. The cardinal point on that line or near it is the direction  **MEASUREMENT OF BEARING**  The direction of one place to another is described as its bearing.  Bearing is expressed in **degrees,** using the protractor, measured from North in a clockwise direction.  **Methods of Measuring Bearing on a Map**  a. Locate the two places involved on the map let’s say, Awka and Enugu.  b. Place your four cardinal point at Awka because you are looking for the bearing of Enugu from Awka  c. Using your ruler, join Awka to Enugu with a straight line  d. Place your protractor on the side of the line and the degree which falls on that line is represents the bearing.  d. Place your protractor on the side of the line and the degree which falls on that line is represents the bearing.  The types of North  It is proper to distinguish the three types of Norths in relation to bearing which aids the orientation of a place.  1. True North: This, which is derived from a line (meridian) of longitude, is the direction of the North Pole.  2. Grid North: This is the direction which is shown by north-south grid lines on the map.  3. Magnetic North: This is obtained through the use of magnetic compass.  The angle between the magnetic North and the True North is called the Magnetic Variation or Declination. |
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