Coordinate reference systems (crs) – coordinate based global system used for measuring locations on the earth’s surface

EPSG registry – a list of geographic reference systems

Geographic coordinate system – uses 3D spherical grid to describe locations on earth

Longitude/Latitude – Longitude lines extend North/South, Latitude lines extend East/West.

Projected coordinate system – a 2D representation of earth

Northing/Easting – used to describe locations on projected coordinate system, northing represents y coordinate, easting represents x coordinate on a grid.

Universal Transverse Mercator (UTM) – map projection that divides world into slices of 6 degree longitudinal width

Datum – set of reference points on earth’s surface used to position actual measurements

1. Different datums are used for different parts of the world. Different datums fit different parts of the world better than others.
2. False northing and easting are linear values applied to the origin of the coordinates. These are used to make all x and y values positive.