

7. The Oceans:—

- (a) Oceanography (definition, methods).
- (b) The ocean basins: (their general condition, deeps, ocean-bottom topography, deposits and life on the ocean bottom).
- (c) Sea-water (temperature, density, composition, colour and light).
- (d) Waves (general characteristics and causes).
- (e) Tides (their nature, cause, influence on different coasts, spring and neap tides, tidal bores and races, general effects).
- (f) Ocean currents (cause, effects, currents of the different oceans with special reference to N. Atlantic.)

8. Volcanoes, Earthquakes, Geysers, Hot Springs:—

- (a) Typical volcanoes (Vesuvius—Mt. Pelée—Etna—Hawaii—Krakatoa—Sbasta—Mr. Royal).
- (b) Types of eruptions.
- (c) Materials erupted—lava floods.
- (d) Origin of Volcanoes and life history.
- (e) Special terms (calders—volcanic rock—dikes—bosses—sills—laccoliths—batholiths.)
- (f) Earthquakes (causes—characteristics—recording and locating—effects.)
- (g) Hot springs and geysers.

9. Glaciers and Ice:—

- (a) Action of ice in lakes and rivers.
- (b) Snow-fields and the snow line—cause of glaciers.
- (c) Types of glaciers (alpine—continental—ice-sheets).
- (d) Work of glaciers (moraines, striae, till, eskers, erratics, roches moutonnées, hanging valleys, cirques.
- (e) The glacial period and results in N. America.
- (f) Ice-dammed lakes, Lakes Agassiz & Ojibway.

10. Shore Lines and Coral Formations:—

- (a) Shorelines of strong relief.
- (b) Shorelines of weak relief.
- (c) History of both types.
- (d) Bars and Beaches.
- (e) Coral organisms and their work.
- (f) Coral islands and theories of their structure.

11. Atmosphere:—

- (a) Composition.
- (b) Pressure (the barometer, isobars, barometric gradient.)
- (c) Temperature (thermometer, isotherms, sources of heat, range of temperature, seasonal variations, influence of land and water).
- (d) Humidity (source, absolute and relative, influence of temperature, dew and frost, fog, clouds, rains snow, hail, general distribution of rainfall).
- (e) Light (its nature, the spectrum, the rainbow, colours of the sky, sunset colours, mirage, halos, twilight).
- (f) Winds (their several causes, land and sea breezes, mountain and valley breezes).
- (g) The wind systems of the earth(—westerlies, trades, monsoons, Fernel's Law, horse latitudes, doldrums).