Climate Lab vocabulary list

Bioindicator: A bioindicator is a species whose behavior can give us insight into changes occurring in an ecosystem, and into what effects those changes are having. Some examples would be – migratory species that change when they migrate in response to temperature change; plants that shift their ranges in response to change in water availability.

Biome: A biome is a collection of ecosystems on a given continent that have similar plant life, landscape features, local climates, and animal life. Examples include "tropical rainforest" and "temperate deciduous forest".

Greenhouse Gas: An atmospheric gas that absorbs heat, and then releases that heat in all directions, acting as insulation for the planet.

Hypothesis: A proposed explanation for something, made on the basis of available evidence, that can be used as the starting point for further investigation.

Indirect measurement (sometimes referred to as a "proxy measurement"): Indirect, or proxy measurements are a way to get information about things that are difficult to measure, by measuring how they affect something else. One example would be measuring the amount of water that's typically available in an area by looking at the plant species living there. If you know which plant species need how much water, then you can get a good idea of water availability from the local ecosystem. Cattails would mean lots of water, cactus would mean very, very little water.

Model: A scientific model is a representation of some phenomenon in reality. These can range from graphs and charts, to equations, to literal three-dimensional models of something. Models are often used as tools to further understanding. If, for example, a computer model of the climate can accurately show weather and climate events from the past when data about the past are fed into it, then it is reasonable to assume that it will be fairly accurate at predicting the future under specified conditions. In the case of the Whittaker Diagram, you can take data – annual precipitation and average temperature – and use it to predict what ecosystem you find in that location with reasonable accuracy.

Phenology: Phenology refers to the recurring plant and animal life cycle stages, flowering, in plants, or hibernation, in some mammals, or migration, in birds.

Storm surge: A rising of the sea as a result of atmospheric pressure changes and wind associated with a storm.