

## Questioning as we learn: An introduction to critical thinking

### Material for Higher Education students in Sierra Leone by INASP, UK



Provided by the Critical Thinking Taskforce (CTTF) within the project AQHEd-SL

#### Unit 2 - Snippet 37



#### Practical activity – Identify the text purpose? (2)

Could you find out what the snippet 36 text's main frame is? If you are not sure, it may help you to read first the next text samples – each having another purpose. Try to imagine a situation or a role you could be in when each of the texts could be useful to you.

So read the next text and try to find out it's focus and frame. If you cannot remember the frames anymore, go back to the table in snippet 35.

#### Photosynthesis

All organisms require energy, which they get by feeding. Carnivores eat other animals and herbivores eat plants. But where does the energy stored in food originate? All of this energy can be traced back to *photosynthesis*, the process whereby plants use sunlight (energy from the sun) to make their own food from carbon-dioxide and water, and release oxygen as a waste product.

During photosynthesis, molecules in leaves capture sunlight and energize electrons, which are then stored in the covalent bonds of carbohydrate molecules. Covalent bonds are chemical bond where two atoms are connected to each other by the sharing of two or more electrons. The energy within those bonds will be released when they are broken during cell respiration.

Photosynthesis is essential to all life on earth. It is the only biological process that captures energy from outer space (sunlight) and converts it into chemical energy, which in turn can be made into sugars and other molecular compounds. Plants use these compounds in their metabolic processes; they do not need to consume other organisms for food because they build all the molecules they need. Unlike plants, animals need to consume other organisms to obtain the molecules they need for their metabolic processes. When a top predator, such as a wolf, preys on a deer, the wolf is at the end of an energy path that went from nuclear reactions on the surface of the sun, to light, to photosynthesis, to vegetation, to deer, and finally to wolf.