***Exam Review Correction #4***

1. Plants must perform photosynthesis in order to survive. This means they need to obtain the reactants of photosynthesis which are: Carbon Dioxide (obtained from the air), Water (obtained from the ground) and Energy (obtained from sunlight).
2. All plants are multicellular, eukaryotic, autotrophic, non-motile and have cellulose in their cell walls.
3. Water is used to carry spores away in reproduction. Without water, spores would deposit next to their parents and would fail to get the resources necessary to survive because of the intense competition with their parents.
4. The two types of vascular tissues in plants are:
* Xylem: carries water from the roots to the rest of the plant
* Phloem: carries dissolved sugars produced by leaves to the rest of the plant
1. Fruits carry seeds. When an angiosperm produces a fruit, it invests a significant amount of water and nutrients into its flesh, hoping to attract an animals who will come and eat it. The seeds of the fruit will be consumed and will pass, undigested, through the digestive system of the animal. The animal will walk away from the plant, and several hours later, deposit the seeds in its feces, far from the parent plant. This will give the offspring the best chance of not having to compete with another adult member of its species for resources.
2. Water is essential to a sponge’s survival because water currents bring food and oxygen to the sponge, and carries away its wastes. The water currents are also responsible for carrying sperm cells from one sponge to another where is will be used to fertilize the egg cells for reproduction.
3. Sponges are classified as animals because they have all the characteristics required to belong to the animal kingdom: they are multicellular, eukaryotic, heterotrophic organism who are motile while in their larval stage.
4. Sponges are filter-feeders. They create a current of water using their choanocytes, and the current of water in drawn in through their pores. In their pores are tiny nets that trap food particles in the water. These food particles can be distributed throughout the tissues of the sponge by the archaeocytes.
5. Cnidarians are soft-bodies organisms with stinging cells located along the tentacles that surround their mouths.
6. Cnidarians will use the stinging cells located on their tentacles (cnidocytes) to kill or paralyse their prey. Their will then wind their tentacles around the organism and draw it into their mouth, when the organism will enter the GVC (gastrovascular cavity). In the GVC, digestive fluids will slowly digest the prey and the nutrients will be absorbed by the cells that line the GVC.
7. The three worm phyla are:
* Platyhelminthes (flatworms): NO body cavity.
* Nematoda (Roundworms): FALSE body cavity.
* Annelida (segmented worms): REAL body cavity.

Though there are other characteristics that help define each group, the body cavity is the main reason why these worms make up three phyla instead of one.

1. The water vascular system of an echinoderm is essential to its survival because it provides a mechanism for respiration, excretion, circulation and movement. Without the ability to effectively exchange gasses (oxygen, carbon dioxide), get rid of wastes, transport nutrients and move in their environment, echinoderms would not be able to survive.