Topic 1-11

Characteristics of Living Things

Use with textbook pages 8-II.

Identify the characteristic of living things described in each statement. A list of the characteristics is given below.

- A. reproduce
- B. use energy
- C. made of cells
- D. produce waste

- E. take in nutrients
- F. respond to stimuli
- G. grow and develop
- A tadpole undergoes metamorphosis and becomes a bullfrog.
 Humans breathe out carbon dioxide when they exhale.
- 3. Birds produce guano as a thick white paste consisting of mostly uric acid.
- 4. A bacterium splits into two equal halves to produce two new daughter cells.
- 5. Under a microscope, some internal leaf structures are arranged like bricks in a wall.
- 6. A raft of Steller sea lions consume fish, squid, and octopus as part of their diet.
- 7. A Western rattlesnake coils up on the road to bask in the sun so that it can stay warm.
- 8. A runner eats a spaghetti dinner to carbo-load the night before the Vancouver Sun Run.
- 9. In order to increase in size, a Dungeness crab has to undergo moulting to shed its exoskeleton.
- 10. A student views *Euglena*, a unicellular organism, under the microscope and makes a sketch of it in her notebook.
- 11. Thousands of spawning salmon can be seen swimming upstream along the Adams River in Kamloops to lay and fertilize their eggs. _____
- 12. The European wall lizards on the Saanich Peninsula eat lots of insects to have enough energy for their active lifestyle jumping.

Interdependent Characteristics

Use with textbook pages 8-II.

Identify two characteristics of living things that are interdependent because they are closely related in each scenario described below.

- 1. Sunflowers are known to follow and face the Sun as they grow.
- 2. The body produces new skin cells through cell division to help seal a wound from a cut.
- 3. A sunflower sea star has the ability to regenerate a lost arm and regrow another one.
- 4. A black-tailed deer fawn doubles in weight after suckling milk from its mother for the first two weeks of its life.
- 5. A black bear will eat large quantities of salmon and berries to store up body fat before it hibernates for the winter.
- **6.** When red blood cells reach the lungs, carbon dioxide molecules diffuse out of blood cells into the air sacs for exhalation.
- 7. As a spider crawls along the leaf of a Venus flytrap, it triggers the hair on the leaf, which causes the trap to snap shut. The plant then digests the spider.
- 8. A tree absorbs nutrients and water from the soil, takes in carbon dioxide from the atmosphere, and captures the Sun's energy to produce food and oxygen through the process of photosynthesis.