

Put your answers on a separate sheet – do not try to squeeze your answers on this paper. Review all of your notes and vocabulary words.

- Define ecology.
- Define abiotic and give an example of an abiotic factor.
- Define biotic and give an example of a biotic factor.
- List the 6 levels of organization of ecology. Describe each level.
  - **Organisms**
  - **population**
  - **community**
  - **ecosystem**
  - **biome**
  - **biosphere**
- Define habitat.
- Define niche. If organisms have overlapping niches, what is a likely outcome of their interaction?
- What two requirements does an ecosystem have to sustain life?
- What type of organism is capable of using and storing energy from the sun?
- How does population size of both predators and prey affect each other?
- recognize that radiant energy from the Sun is transformed into chemical energy through the process of **photosynthesis**
  - Define photosynthesis
  - Identify the energy transformation occurring during this process: radiant to chemical energy
  - Analyze an image of photosynthesis
- demonstrate and explain the **cycling of matter within living systems** such as in the decay of biomass in a compost bin
  - define compost, decay, biomass and cycling of matter
  - explain what happens during the cycling of matter and what product is given off
  - illustrate the process of decay and cycling of matter
  - explain the importance of composting
- identify that **organic compounds** contain carbon and other elements such as hydrogen, oxygen, phosphorus, nitrogen, or sulfur
  - define organic compounds
  - select organic compounds from a list
  - differentiate between organic and inorganic compounds

- observe, record, and describe the role of **ecological succession** such as in a microhabitat of a garden with weeds
  - define ecological succession, primary succession, secondary succession, pioneer species, climax community
  - compare primary and secondary succession
  - identify the types of organisms that are pioneer species in primary and secondary succession
  - put in order the growth of an ecosystem during ecological succession
  - What is succession?
  - When organisms colonize new areas (that have never had life) it is called \_\_\_\_\_.
  - The first species to populate an area is called the \_\_\_\_\_.
  - The mature community that is developed after community becomes stable is the \_\_\_\_\_.
  - When organisms colonize an area that once had life that was wiped out is called \_\_\_\_\_.
  - One of the main differences in secondary succession is that the community already has \_\_\_\_\_.
  - What is carrying capacity?
  - If you had an aquarium, how could you increase the carrying capacity? How could you decrease it?
    - **Increase –**
    - **Decrease –**