**Directions:**

Read the following information about Barry Commoner’s Laws of Ecology along with the Presentation. Record the five laws in your biology notebook and answers the Assessment questions for Chapter 3 as outlined below.

In the early 1970s, ecologist Barry Commoner wrote The Closing Circle, in which he discussed the rapid growth of industry and technology and their persistent effect on all forms of life. He suggested that we can reduce the negative effects by sensitizing, informing and educating ourselves about our connection to the natural world. Commoner summarized the basics of ecology into what he termed “laws of ecology.” Others have also used this idea to develop simple statements that help us understand and remember our connections to nature.

These laws form the basis for studying and understanding the relationships and interdependencies found in communities and ecosystems. They further explain that humankind is, in fact, only one member of the biotic community and that people are shaped and nurtured by the characteristics of the land. These laws will not explain everything. Mysteries will remain. But they will give you a clearer understanding and appreciation of ecology, and your “niche” as a member of the living community.

**Ecology** is the study of interactions among organisms and between organisms and their environment.

**Commoner’s Five Laws of Ecology**

1. **Everything is connected to everything else**
   * *Humans and other species are connected (dependent) on many other species.*
2. **Everything has to go somewhere – there is no such place as “away”**
   * *No matter what you do, and no matter what you use, it must go somewhere.*
   * *Examples of Natural Cycles: Nitrogen, Carbon, Water, Phosphorus*
3. **Everything is always changing “Nature Knows Best”**
   * *Given enough time nature can heal itself*
4. **There is no such thing as a free lunch**
   * *Everything has consequences*
5. **Everything has limits**
   * *Renewable resources will continue to be available only if they are replaced faster than we use them.*
   * *Non-renewable resources are plentiful but will eventually run out.*

Chapter 3.1 Questions

1. a.
2. b.
3. a.

Chapter 3.2 Questions

1. a.
2. b.