

Unit
1Handout
_____*Lessons 1-5 Study Guide***Purpose:**

To provide you with a framework for reviewing the key concepts and terms from lessons 1-5 of the IBI text.

Instructions:

Your quiz is scheduled for **Tuesday, October 21st**. Use this study guide to help you prepare for the quiz. Study guides are not meant to tell you what is on a quiz, but rather help guide your thinking and focus. Use this guide to help you identify areas of strength and weakness so you know what to study.

Assigned Readings

The following are the pages of readings that were either assigned to you as homework or read together as a class: 7-9, 10-15, 49-53, 60-63, 68-69, 76-79.

Important concepts

The following are important concepts that we learned during lessons 1-5 of IBI.

1. **L1:** All organisms have common characteristics.
2. **L1:** Organisms have unique scientific names.
3. **L1:** Scientists name and classify organisms.
4. **L2:** Scientists use microscope to observe microorganisms.
5. **L2/3:** Organisms have structures (parts) that perform specific functions (jobs).
6. **L5:** Different cells serve different functions.
7. **L5:** The cells of animals differ from the cells of plants.
8. **L5:** Some materials move in and out of cells through the processes of osmosis and diffusion.

You should know how to...

1. **L1:** Determine if something is an organism using the common characteristics of organisms.
2. **L1:** Give an organism a scientific name.
3. **L1:** Follow the rules on writing the scientific name of an organism.
4. **L1:** Determine, by name, which organisms are more similar to each other.
5. **L2:** Properly use a microscope.
6. **L2:** Identify the parts of a microscope and describe what that part does.
7. **L2:** Make a scientific drawing following the 10 rules.
8. **L3:** Identify basic parts of a blackworm (ex: blood vessel, digestive track).
9. **L5:** Identify different, visible parts of a cell.
10. **L5:** Determine if a cell is a plant cell or an animal cell.
11. **L5:** Determine if materials (like water) will enter or leave a cell based on its environment.

Continued on the back.

Important Vocabulary

The following were important vocabulary terms that we learned during lessons 1-5.

Lesson 1: Organism, domain, kingdom, genus, species

Lesson 2: The microscope parts: arm, base, coarse adjustment knob, diaphragm, eyepiece, fine adjustment knob, light, nosepiece, objective lenses, stage, stage clips

Lesson 3: Anterior, posterior, regeneration, setae/chaetae, fragmentation, dorsal

Lesson 4: Ecosystem, habitat, community, niche

Lesson 5: Cell, cell membrane, cell wall, chloroplast, nucleus, cytoplasm, vacuole, plastid, osmosis, diffusion

General Review Questions

- 1. L1:** What are the 5 common characteristics of organisms?
- 2. L1:** What are the rules for writing an organisms scientific name?
- 3. L1:** If the (full) scientific name of two organisms is very similar, what does that tell you about the two organisms?
- 4. L2:** What are the functions (jobs) of the different microscope parts?
- 5. L2:** What are some of the rules for making a good microscope drawing?
- 6. L4:** What are the differences between a habitat, community, and ecosystem?
- 7. L5:** What is the area inside of a cell called?
- 8. L5:** What are some differences between plant and animal cells?
- 9. L5:** What were some differences between the cheek cell and nerve cells we observed?
- 10. L5:** What is the function (job) of the chloroplast/chlorophyll?
- 11. L5:** What were some differences between the onion bulb cell and elodea leaf cells we observed?
- 12. L5:** If the inside of a cell has 98% concentration of water and the outside of the cell has 90% concentration of water, what will happen?