

1.1 – Characteristics of Living Things (Science 8)

Name: _____ Date: _____ Block: _____

1) Living Things are Made of Cells

- **Cells** are the _____ unit (“building blocks”) of all living things
- Cells are very small (could fit 10-10000 cells in _____)
- A cell is like a ‘bag’ filled with _____ and other structures
- _____ organisms are made of a single cell only.

Examples: _____

- _____ organisms are made of multiple cells.

Examples: _____

2) Living Things Take in Nutrients

- **Nutrients:** substances that living things need but _____ for themselves. Examples: _____
- **Consumers:** get their nutrients and energy by _____ (e.g. hamster, human)
- **Producers:** can _____ using the Sun’s energy and nutrients from their surroundings (e.g. plants)

3) Living Things Use Energy

- Living things need energy (from _____ to power their daily activities.
- Examples of activities that use energy: _____

4) Living Things Produce Waste

- **Waste:** substances that living things produce and _____
Examples: _____

5) Living Things Respond to Stimuli

- **Stimulus** (pl. stimuli): anything that _____ a living thing to _____ in a certain way
- *Internal stimulus:* information about your _____
Examples: _____
- *External stimulus:* information about your _____
Examples: _____

6) Living Things Grow and Develop

- Increase in _____ and/or _____
- Heal (repair wounds)
- Become more _____ over time (includes _____)

7) Living Things Reproduce

- **Reproduce:** produce more _____
- Examples: _____
- Many different reproduction strategies exist, including with and without a mate

Living things exhibit **all 7** characteristics of living things. If something is missing even one of the characteristics, it **is not alive**.

Practice:

- 1) Determine which of the characteristics of living things are displayed by each of the following: wood, rock, frog, leaf, worm, pencil, cactus, seed, cell phone, t-shirt, car, book
- 2) Explain why nutrients and waste are opposites. Use examples of each in your answer.
- 3) How are growth/development and reproduction similar? How are they different?
- 4) Bella the Bee and Charlie the Clover are good friends. One day, Charlie is having difficulty breathing, so Bella gives him some oxygen to try and help him out. Charlie becomes even more sick as a result. Explain what is going on here, in terms of the characteristics of living things. Use appropriate vocabulary in your answer.