

Sec. 1.1 Notes:

Single-celled organisms have all the characteristics of living things.

Learning Goal: **Organisms have basic needs for survival: Compare and contrast characteristics of living and non living things.**

Frozen Alive Video

What special characteristic of the flounder keeps it from freezing at very low temperatures?

What triggers the change in the flounder's blood from summer to winter?

What human problem is Boris Rubinsky trying to solve?

What characteristic of the wood frog might offer a solution?

How might studying the flounder & wood frog lead to benefits for humans?

Living things come in many shapes and sizes – pg. 9-11

What is an organism?

What do you call an organism that can't be seen with the naked eye?

What 3 kingdoms are made up of mostly microscopic organisms?

What 3 kingdoms have organisms large enough to see? Give examples for each.

Living things share common characteristics – pg. 11-12

Organization: All single-celled _____ have all the _____ needed for survival such as: structures for _____ and _____, and structures to help them _____ their environment.

How can an organism survive with only one cell?

Growth: All _____ grow larger over _____.

Reproduction: all _____ reproduce forming _____ like themselves.

What molecule contains the cell's genetic material?

What process do single-celled organisms use to reproduce?

Describe the sequence of events in the process of binary fission.

Response: All organisms respond to the _____. Ex: light, touch, _____, fear, survival are a few examples

Living things need energy, materials, and living space – pg. 13

Where do living things get energy?

Why is water so important to living things?

A **virus** has many characteristics of living things but are not considered living because they are not as complex