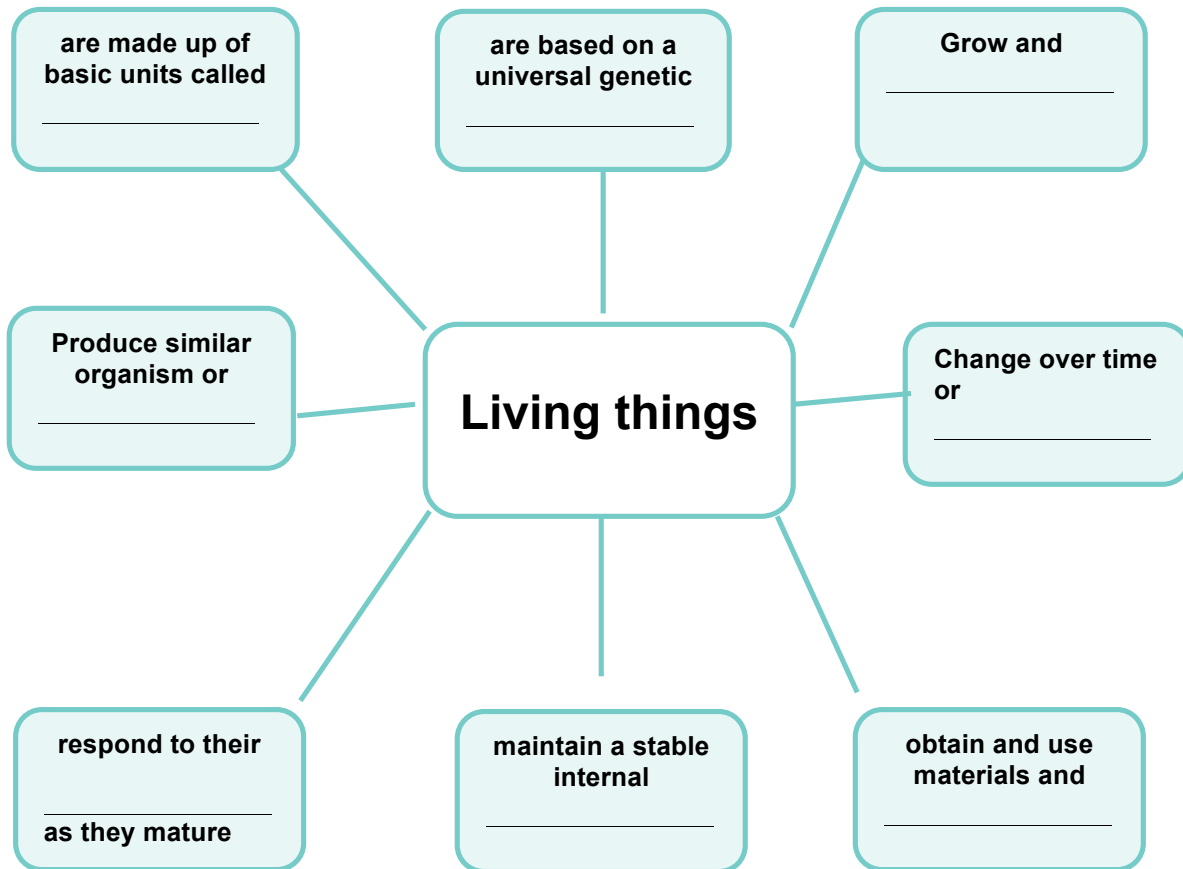


1.3 Studying Life

Characteristics of Living Things **Biology** is the study of life. Living things share these characteristics: They are made of cells and have a universal genetic code; they obtain and use materials and energy to grow and develop; they reproduce; they respond to signals in their environment (**stimuli**) and maintain a stable internal environment; they change over time.

Characteristics of Living Things

1. Complete the graphic organizer to show the characteristics living things share.



2. The genetic molecule common to all living things is _____.
3. The internal process of _____ enables living things to survive changing conditions.
4. Living things are capable of responding to different types of _____.
5. Living things have a long history of _____ change.
6. The continuation of life depends of both _____ and _____.
7. The combination of chemical reactions that make up an organism's _____ help to organize raw materials into living matter.

Big Ideas in Biology

8. Complete the table of Big Ideas in Biology. The first row is filled in for you.

| Big Idea | Description |
|---------------------------------------|---|
| Cellular basis of life | Living things are made of cells. |
| Information and heredity | |
| | Life requires matter that provides raw materials, nutrients, and energy. |
| Growth, development, and reproduction | |
| | Living things maintain a relatively stable internal environment. |
| Evolution | |
| | Each major group of organisms has evolved structures that make particular functions possible. |
| | All living things are fundamentally similar at the molecular level. |
| | All forms of life on Earth are connected into a biosphere—a living planet. |
| Science as a way of knowing | |

9. Pick two of the big ideas from the chart and describe how the ideas interlock.
