Book: The Science of Living Things: What is a Plant? by: Bobbie Kalman

Living Things Need Plants (Pages 4, 5)

What is the main purpose of the selection? (Purpose/main idea)

1. talk about carbon dioxide
2. show the author’s opinion
3. teach about the importance of plants
4. none of the above

What do plants provide people and animals? (Details)

1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Based on the selection, what do plants need to make their own food? (Details)

1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Mention five ways plants help? (Main idea)

1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
5. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

List three subheadings from the selection. (Text feature)

1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

What are two ways animals get energy? (Text features, details)

1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Plants are considered air fresheners and air conditioners because… (Main idea/ details)

1. They release water into the air, which lowers the Earth’s temperature.
2. They take in carbon dioxide, which is poisonous to people.
3. They produce oxygen, which makes the air cleaner to breathe.
4. All of the above

If we did not have plants on Earth, which of the following would happen? (Inference)

1. Earth’s temperature would be stable
2. Earth would become hotter and hotter
3. Earth’s temperature would be fresh
4. Animals and people would have more food

What does the author mean when he refers to stable temperature? (Vocabulary, Context clues)

1. That the Earth’s temperature can change very easily.
2. That the Earth’s temperature will not change very easily.
3. That the Earth’s temperature will remain about the same over time.
4. That the Earth is going to get very hot.

What are plants? (Pages 6, 7)

What are three important things all plants have in common?

1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Complete the chart (Summary)

|  |  |  |
| --- | --- | --- |
| Type of plant | Characteristic | Example |
| Flowering plants | Largest group of plants |  |
| Carnivorous plants |  | Venus flytrap |
| Water plants |  | Water Lily |
| Spores |  |  |
| Deciduous trees |  |  |
| Evergreen trees |  |  |

Not a Plant (pages 8, 9)

Many things look and behave like a plant. However, scientist does not include which of the following as part of the plant kingdom?

1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
5. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Classify the following living things according to their Kingdom

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Plant kingdom | Animal Kingdom | Fungi  Kingdom | Protists  Kingdom |
| Deciduous trees | X |  |  |  |
| Lichens |  |  |  |  |
| Mushrooms |  |  |  |  |
| Coral |  |  |  |  |
| Algae |  |  |  |  |
| Ferns |  |  |  |  |
| Seaweeds |  |  |  |  |

Roots, Stems, and Leaves (pages 10, 11)

<http://www.brainpopjr.com/science/plants/partsofaplant/>

<http://worksheetplace.com/mf/Parts-of-a-plant-worksheet.pdf>

Match the vocabulary word to the correct definition.  Write the correct letter on the line.

1.  \_\_\_\_\_\_ vascular system a.   several leaf blades

2.  \_\_\_\_\_\_ xylem b.  protects the leaf and keeps it moist

3.  \_\_\_\_\_\_ phloem c.  skin

4.  \_\_\_\_\_\_ pith d.  main root that has many smaller roots growing from it

5.  \_\_\_\_\_\_ root caps e.  thin roots that branch out in all directions near the surface

6.  \_\_\_\_\_\_ taproots f.  roots that develop from the stem

7.  \_\_\_\_\_\_ fibrous g.  these protect root tips as they grow and push through the soil

8.  \_\_\_\_\_\_ adventitious h.  connects all the parts of a plant

9.  \_\_\_\_\_\_ epidermis i.  soft tissue in the center of the plant that helps cells store extra food

10.  \_\_\_\_\_\_ cuticle j.  carries water and nutrients from roots to the stem, leaves, and flowers

11.  \_\_\_\_\_\_ leaflets k.  carries food from the leaves to the rest of the plant

Staying Alive (pages 12, 13)

Read the way plants adapt on the right and match it with the corresponding type of plant from the left. (Cut and paste activity)

|  |  |  |
| --- | --- | --- |
| Water plants |  | Tiny hairs on their stems to keep in warmth and moisture  Grow on rocks for shelter from the wind  Grow long roots to the ground to avoid wind  Have small leaves that lose little water  Have fine hairs that act as blankets to help hold in heat. |
| Desert Plants |  | Wide leaves to catch sunlight  Vines grow up trees to reach sunlight |
| Tropical Plants |  | Have pockets of air in their stems and leaves that help them to float |
| Arctic poppies, mosses, arctic and high mountaintops plants |  | Huge fibrous roots , long roots, waxy coatings to keep moisture  Store water in their stem  Do not have leaves  Have spines for defense |

Making Food: (pages 14, 15, 16,17) context clues, vocabulary. Video on discovery education.

(Sundew) [http://app.discoveryeducation.com/search?Ntt=sundew##](http://app.discoveryeducation.com/search?Ntt=sundew#%23)

(Venus Flytrap) <http://app.discoveryeducation.com/search?Ntt=venus+flytrap>

Use the word bank to complete each sentence with the corresponding word.

|  |
| --- |
| water, sap, partially parasitic, oxygen, carnivorous, host, sunlight, roots, carbon dioxide, roots, plants, stems, leaves, parasitic, chlorophyll, food, glucose, sun, |

1. Plants get light and energy from the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ .
2. The green color of plants is Chlorophyll. Chlorophyll helps plants make their own \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
3. The food that the plant makes is called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ . Which is a type of \_\_\_\_\_\_\_\_\_\_\_\_\_.
4. Plants use \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to make food.
5. When plants make food they release \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ into the air
6. To get sunlight and water, plants move their \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
7. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ plants do not make their own food.
8. Two kinds of carnivorous plants are the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and the \_\_\_\_\_\_\_\_\_\_\_\_\_.
9. Parasitic plants get their food from a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ plant and steal its food.
10. The mistletoe is an example of a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ tree.

Growing from seeds - Pages 18 – 19

**Directions – Read the passage. Put each step of the pollination process in the correct sequential order.**

Flowers are beautiful to look at, but they have a much more important job than pleasing people.  Flowers are designed for pollination, which is the first step in making seeds.  Pollination takes place when pollen from one flower’s stamen reaches another flower’s stigma.  After a flower is pollinated, its petals fall off.  The ovaries inside the flower grow larger and become fruit.  The fruit contains the seeds for the next plant.

|  |  |  |
| --- | --- | --- |
| 1.  First... | 2.  After... | 3.  Last... |

Directions - Use pages 18 and 19 to help you fill in the blanks.

1. A seed is a capsule that contains a tiny \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, or new plant.
2. All embryos have a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, which grows into the soil and becomes a root.

3.  When a seed lands in a spot with enough space and water, it begins to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, or grow into a new plant.

**Directions - Draw a picture based on the description of each step of a plant’s life cycle.**

|  |  |
| --- | --- |
| 1.  The seed breaks open.  The radicle grows downward, and a stem grows upward. |  |
| 2.  The young bean plant grows leaves and starts making its own food. |  |
| 3.  Insects bring pollen from other bean plants to pollinate the flowers of this plant. |  |
| 4.  A fruit forms around the seeds.  The fruit and seeds fall to the ground. |  |

Help from Nature (Page 20, 21)

In order to spread its pollen, plants \_\_\_\_\_\_\_\_\_\_\_\_

1. move from place to place
2. Use the help of the wind, animals and insects.
3. attract pollinators by the bright colors of its petals
4. A and B
5. B and C

According to the passage which statement is **not** true?

1. Ferns make spores on the underside of its leaves
2. All plants reproduce from seeds
3. Some plants produce bulbs that store food and grow into new plants
4. Some plants produce spores which will grow into new plants

According to the passage, what can be said about bulbs?

1. Bulbs are seeds that will produce ferns
2. Bulbs grow just under the surface of the ground and produce rhizomes
3. Bulbs grow on the sides of parent bulbs. They get active during winter
4. Bulbs store food. They grow into plants during the spring

Page 24, 25 Trees and Forests (comparing and contrasting)

**Directions:** With the help of the text and the phrases below, classify **tropical evergreens** and **deciduous trees**.

1. Grow throughout the entire year
2. Shed their leaves before the winter
3. Need to be very tall
4. Many grow more than 15 feet in one year
5. Get dormant during the winter
6. Unable to get water from the ground during the cold winter
7. Grow in tropical warm climates

**Tropical Evergreens Deciduous trees**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Think about your day. How do plants help you? Use the examples as a guide and write five more entries. Do not forget to check for sentence signals like capitals and periods. Write complete sentences.**

7:00. I woke up. My bed was made out of wood. Wood comes from trees.

8:00. I had breakfast, I ate cereal and milk. My cereal comes from wheat which is a plant.

1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
5. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Draw a picture showing how plants help people every day.  You may use ideas from the sentences you wrote above.**

|  |
| --- |
|  |