

## G4 Science Language for Plant Adaptations: Past and Present

### Day 1

- **Observing** is carefully looking at something or someone to gather information.
- A **scientist** is a person who is an expert in or who studies aspects of the natural or physical world.
- A **team**, or **teamwork**, is a group of people who work together to accomplish a goal.
- **Collaboration** occurs when two or more people work together, learn from each other, and communicate with each other.
- **Organisms** are living things that are able to carry out the actions needed to live, grow, and survive.
- **Fossils** are the preserved remains or impressions of plants and animals from a past geologic age.
- **Paleontologists** are scientists who study fossils to learn about the history of life on Earth.
- **Paleobotanists** are scientists who specialize in the study of plant fossils.

### Day 2

- **Observing** is carefully looking at something or someone to gather information.
- A **scientist** is a person who is an expert in or who studies aspects of the natural or physical world.
- A **team**, or **teamwork**, is a group of people who work together to accomplish a goal.
- **Collaboration** occurs when two or more people work together, learn from each other, and communicate with each other.
- **Organisms** are living things that are able to carry out the actions needed to live, grow, and survive.
- **Fossils** are the preserved remains or impressions of plants and animals from a past geologic age.

### Day 3

- **Observing** is carefully looking at something or someone to gather information.
- **Organisms** are living things that are able to carry out the actions needed to live, grow, and survive.
- **Fossils** are the preserved remains or impressions of plants and animals from a past geologic age.
- **Sedimentary rocks**, where fossils are usually found, are formed by compressed layers of minerals and organic matter.
- **Impression fossils** are prints or indentations left in soft Earth materials, such as sand, silt, or mud.
- In **compression fossils**, the plant is physically compressed, or flattened, but some plant matter remains.

- A **mold fossil** is a depression left in sediment after a plant has completely decayed. A mold fossil is deeper than an impression fossil.
- In the process of **petrification**, plants or plant parts turn into stone when they are saturated with dissolved minerals that harden over time. This is how **petrified wood** is formed.
- **Microfossils** are tiny plant or animal fossils that are smaller than 1 mm (about the size of a pinhead) and can only be seen through a microscope.

#### Day 4

- Plant **structures** include roots, stems, leaves, and flowers. Structures have **functions**, or jobs, that provide what a plant needs to survive.
- A **flower** is a specialized structure that allows some plants to reproduce. Not all plants have flowers.
- A **leaf** is the part of a plant that absorbs sunlight, exchanges gases, and makes food for the plant.
- The **stem** of a plant provides structural support and transports water, minerals, and food throughout the plant.
- **Roots** anchor and support a plant, absorb and transport water and minerals, and store food.

#### Day 5

- **Observing** is carefully looking at something or someone to gather information.
- **Data** are facts and information (such as images, words, and measurements) collected during an investigation.
- **Plant adaptations** made some species of plants better suited to living in a particular habitat or environment.
- **Leaf morphology** refers to the size, shape, and structure of a leaf.
- A **leaf** is the part of a plant that absorbs sunlight, exchanges gases, and makes food for the plant.

#### Day 6

- **Plant adaptations** made some species of plants better suited to living in a particular habitat or environment.
- **Bryophytes** absorb water and nutrients through their leaves. They include liverworts, hornworts, and moss.
- A **specimen** is an organism or part of an organism used in scientific investigations.
- **Evidence** is data collected during an investigation to support (back up) explanations and answers.
- **Data** are facts and information (such as images, words, and measurements) collected during an investigation.
- In **compression fossils**, the plant is physically compressed, or flattened, but some plant matter remains.
- **Climate** refers to the average weather in an area over a long period of time.
- **Glaciers** are large, thick masses of ice that form on land when snow gets compressed into ice over hundreds of years.

#### Day 7

- **Plant adaptations** made some species of plants better suited to living in a particular habitat or environment.
- A **specimen** is an organism or part of an organism used in scientific investigations.

- **Evidence** is data collected during an investigation to support (back up) explanations and answers.
- **Data** are facts and information (such as images, words, and measurements) collected during an investigation.
- A **vascular** plant has a special system of tissues that moves water and food throughout the plant. Ferns, horsetails, and club mosses are examples of vascular plants.

#### Day 8

- **Plant adaptations** made some species of plants better suited to living in a particular habitat or environment.
- **Gymnosperms** include cycads, conifers, ginkgos, and gnetophytes. Conifers make up the largest group of gymnosperms.
- A **specimen** is an organism or part of an organism used in scientific investigations.
- **Evidence** is data collected during an investigation to support (back up) explanations and answers.
- **Data** are facts and information (such as images, words, and measurements) collected during an investigation.
- **Species** refers to a group of organisms that share similar characteristics.
- An **extinct** species has no living members of its group in existence.

#### Day 9

- **Plant adaptations** made some species of plants better suited to living in a particular habitat or environment.
- **Angiosperms** are flowering plants.
- A **specimen** is an organism or part of an organism used in scientific research or investigations.
- **Evidence** is data collected during an investigation to support (back up) explanations and answers.
- **Data** are facts and information (such as images, words, and measurements) collected during an investigation.
- An **extinct** species has no living members of its group in existence.
- **Species** refers to a group of organisms that share similar characteristics.

#### Day 10

- **Plant adaptations** made some species of plants better suited to living in a particular habitat or environment.
- **Evidence** is data collected during an investigation to support (back up) explanations and answers.
- **Analyze** means to carefully examine details or specific information.
- **Data** are facts and information (such as images, words, and measurements) collected during an investigation.
- **Species** refers to a group of organisms that share similar characteristics.
- An **extinct** species has no living members of its group in existence.

#### Day 11

- A **claim** is a statement of what you think is true based on observations and evidence.
- **Evidence** is data collected during an investigation to support (back up) explanations and answers.

- **Reasoning** means thinking about and explaining **how** the evidence supports a claim.
- **Data** are facts and information (such as images, words, and measurements) collected during an investigation.
- **Plant adaptations** made some species of plants better suited to living in a particular habitat or environment.
- An **extinct** organism has no living members of its group in existence.
- **Species** refers to a group of organisms that share similar characteristics.
- **Plant structures** include roots, stems, leaves, and flowers. Structures have **functions**, or jobs, that provide what a plant needs to survive.

#### Day 12

- A **claim** is a statement of what you think is true based on observation and evidence.
- **Evidence** is data collected during an investigation to support (back up) explanations and answers.
- **Data** are facts and information (such as images, words, and measurements) collected during an investigation.
- **Reasoning** means thinking about and explaining how the evidence supports a claim.
- **Species** refers to a group of organisms that share similar characteristics.
- An **extinct** species has no living members of its group in existence.
- **Extant** refers to a species that is still living.

#### Day 13

- A **claim** is a statement of what you think is true based on observations and evidence.
- **Evidence** is data collected during an investigation to support (back up) explanations and answers.
- **Reasoning** means thinking about and explaining **how** the evidence supports a claim.
- **Data** are facts and information (such as images, words, and measurements) collected during an investigation.

#### Day 14

- A **claim** is a statement of what you think is true based on observations and evidence.
- **Evidence** is data collected during an investigation to support (back up) explanations and answers.
- **Reasoning** means thinking about and explaining **how** the evidence supports a claim.
- **Data** are facts and information (such as images, words, and measurements) collected during an investigation.

#### Day 15

- A **claim** is a statement of what you think is true based on observations and evidence.
- **Evidence** is data collected during an investigation to support (back up) explanations and answers.
- **Reasoning** means thinking about and explaining **how** the evidence supports a claim.
- **Data** are facts and information (such as images, words, and measurements) collected during an investigation.

## Science Language in Alphabetical Order

- **Analyze** means to carefully examine details or specific information.
- **Angiosperms** are flowering plants.
- **Bryophytes** absorb water and nutrients through their leaves. They include liverworts, hornworts, and moss.
- When a mold fossil fills with sediments that turn into rock, it becomes a **cast fossil** that resembles what the plant looked like.
- A **claim** is a statement of what you think is true based on observation and evidence.
- **Climate** refers to the average weather in an area over a long period of time.
- **Collaboration** occurs when two or more people work together, learn from each other, and communicate with each other.
- In **compression fossils**, the plant is physically compressed, or flattened, but some plant matter remains.
- **Data** are facts and information (such as images, words, and measurements) collected during an investigation.
- **Evidence** is data collected during an investigation to support (back up) explanations and answers.
- An **extinct** species has no living members of its group in existence.
- A **flower** is a specialized structure that allows some plants to reproduce. Not all plants have flowers.
- **Fossils** are the preserved remains or impressions of plants and animals from a past geologic age.
- **Glaciers** are large, thick masses of ice that form on land when snow gets compressed into ice over hundreds of years.
- **Gymnosperms** include cycads, conifers, ginkgos, and gnetophytes. **Conifers** make up the largest group of gymnosperms.
- **Impression fossils** are prints or indentations of plants left in soft Earth materials, such as sand, silt, or mud.
- A **leaf** is the part of a plant that absorbs sunlight, exchanges gases, and makes food for the plant.
- **Leaf morphology** refers to the size, shape, and structure of a leaf.
- A **living fossil** is an organism that has remained basically unchanged through time.
- **Microfossils** are tiny plant or animal fossils that are smaller than 1 mm (about the size of a pinhead) and can only be seen through a microscope.
- A **mold fossil** is a depression left in sediment after a plant has completely decayed. A mold fossil is deeper than an impression fossil.
- **Observing** is carefully looking at something or someone to gather information.
- **Organisms** are living things that are able to carry out the actions needed to live, grow, and survive.
- **Paleobotanists** are scientists who specialize in the study of plant fossils.
- **Paleontologists** are scientists who study fossils to learn about the history of life on Earth.
- In the process of **petrification**, plants or plant parts turn into stone when they are saturated with dissolved minerals that harden over time. This is how **petrified wood** is formed.
- **Plant adaptations** made some species of plants better suited to living in a particular habitat or environment.

- **Plant structures** include roots, stems, leaves, and flowers. Structures have **functions**, or jobs, that provide what a plant needs to survive.
- **Reasoning** means thinking about and explaining **how** the evidence supports a claim.
- **Roots** anchor and support a plant, absorb and transport water and minerals, and store food.
- A **scientist** is a person who is an expert in or who studies aspects of the natural or physical world.
- **Sedimentary rocks**, where fossils are usually found, are formed by compressed layers of minerals and organic matter.
- **Species** refers to a group of organisms that share similar characteristics.
- A **specimen** is an organism or part of an organism used in scientific investigations.
- The **stem** of a plant provides structural support and transports water, minerals, and food throughout the plant.
- A **team**, or **teamwork**, is a group of people who work together to accomplish a goal or task.
- A **vascular** plant has a special system of tissues that moves water and food throughout the plant. Ferns, horsetails, and club mosses are examples of vascular plants.