

G4 Science Language for Plant Traits: Inherited and Acquired

Day 1

- A **trait** is an observable characteristic that an organism is born with, such as eye color, feathers, or the shape of leaves. Traits can be inherited or acquired.
- **Inherited traits** are passed down from parent to offspring.
- **Acquired traits** are not passed down but are the result of environmental or external factors.
- **Organisms** are living things that carry out the activities needed to live, grow, and survive.
- **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 **botanist** is an expert in the scientific study of plants.
- A **team** 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.

Day 2

- A **trait** is an observable characteristic that an organism is born with, such as eye color, feathers, or the shape of leaves. Traits can be inherited or acquired.
- **Inherited traits** are passed down from parent to offspring.
- **Acquired traits** are not passed down but are the result of environmental or external factors.
- Plants and animals, including humans, produce **offspring**.

Day 3

- A **trait** is physical attribute of an organism such as eye color, feathers, or the shape of leaves. Traits can be inherited or acquired.
- **Inherited traits** are passed down from parent to offspring.
- **Acquired traits** are not passed down but are the result of environmental or external factors.
- A **testable question** is connected to a specific science concept and can be answered through an investigation or experiment.
- A scientific **variable** is something (a factor or condition) that can change or potentially change in a scientific investigation.

Day 4

- A **trait** is an observable characteristic that an organism is born with, such as eye color, feathers, or the shape of leaves. Traits can be inherited or acquired.
- **Inherited traits** are passed down from parent to offspring.
- **Acquired traits** are not passed down but are the result of environmental or external factors.
- A **testable question** is connected to a specific science concept and can be answered by conducting an investigation or experiment.

- A **scientific investigation** is a plan for finding answers to questions and solving problems.
- A scientific **variable** is something (a factor or condition) that can change or potentially change in a scientific investigation.

Day 5

- A **seed** is an undeveloped plant embryo and food reserve enclosed in a protective outer covering.
- **Germination** is the process by which a plant grows from a seed.
- The **embryo** is the tiny plant inside the seed.
- The **cotyledon** is the seed leaf within the embryo and is a source of stored food for the seedling.
- Plants that have one cotyledon or seed leaf are called **monocots**; plants with two seed leaves are called **dicots**.
- The **radicle** is the first part of the seedling to emerge from the seed. It will become the root system as the plant grows. The **hypocotyl** is the part of the embryo that becomes the stem and the leaves.
- A **trait** is physical attribute of an organism such as eye color, feathers, or the shape of leaves. Traits can be inherited or acquired.
- **Inherited traits** are passed down from parent to offspring.

Day 6

- A **seed** is an undeveloped plant embryo and food reserve enclosed in a protective outer covering.
- **Germination** is the process by which a plant grows from a seed.
- The **embryo** is the tiny plant inside the seed.

Day 7

- **Observation** is carefully looking at something or someone to gather information.
- **Acquired traits** are not passed down but are the result of environmental or external factors.
- **Environmental factors** that can affect plants include water, temperature, and air.
- **External factors** that can affect plants include weather and animal or human activity.

Day 8

- A **claim** is a statement of what you think is true based on observations and evidence.
- **Evidence** is data collected from the investigation that supports (backs 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 9

- A **claim** is a statement of what you think is true based on observations and evidence.
- **Evidence** is data collected from the investigation that supports (backs 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 10

- A **claim** is a statement of what you think is true based on observations and evidence.
- **Evidence** is data collected from the investigation that supports (backs 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.

G4 Science Language (alphabetical list)

- **Acquired traits** are not passed down but are the result of environmental or external factors.
- A **botanist** is an expert in the scientific study of plants.
- A **claim** is a statement of what you think is true based on observations and evidence.
- **Collaboration** occurs when two or more people work together, learn from each other, and communicate with each other.
- The **cotyledon** is the seed leaf within the embryo and a source of stored food for the seedling. Plants that have one cotyledon or seed leaf are called **monocots**; plants with two seed leaves are called **dicots**.
- **Data** are facts and information (such as images, words, and measurements) collected during an investigation.
- A **dominant** trait is one that is **most often** observable or seen. A **recessive** trait is one that is **less often** observable or seen.
- The **embryo** is the tiny plant inside the seed.
- **Evidence** is data collected from the investigation that supports (backs up) explanations and answers.
- **Germination** is the process by which a plant grows from a seed.
- **Inherited traits** are passed down from parent to offspring.
- **Observing** is carefully looking at something or someone to gather information.
- Plants and animals, including humans, produce **offspring**.
- **Organisms** are living things that carry out the activities needed to live, grow, and survive.
- The **radicle** is the first part of the seedling to emerge from the seed. It will become the root system as the plant grows. The **hypocotyl** is the part of the embryo that becomes the stem and the leaves.
- **Reasoning** means thinking about and explaining **how** the evidence supports a claim.
- A **scientific investigation** is a plan for finding answers to questions and solving problems.
- A **scientist** is a person who is an expert in or who studies aspects of the natural or physical world.
- A **seed** is an undeveloped plant embryo and food reserve enclosed in a protective outer covering.
- A **taproot system** has a large, straight root that grows directly downward and has smaller roots growing out of it. A **fibrous root system** has thin, threadlike roots that are about the same length and grow in all directions.
- A **team** is a group of people who work together to accomplish a goal.

- A **testable question** is connected to a specific science concept and can be answered by conducting an investigation or experiment.
- A **trait** is an observable characteristic that an organism is born with, such as eye color, feathers, or the shape of leaves.
- A scientific **variable** is something (a factor or condition) that can change or potentially change in a scientific investigation.