

Learning with Gina and Ollie · Parent & teacher companion

Learning with a grown-up · Ages 4–8 · Flexible participation

A Plant's Life Cycle

How can one seed lead to more seeds?

Learning aim: Sequence the pictured stages and explain why the cycle can begin again.

A five-minute conversation

Start by finding the seed together. Read one stage at a time and let your child point to what changes: roots, a shoot, leaves, flowers and new seeds. The aim is to notice a repeating sequence, rather than memorize every word. Finish by tracing from the new seeds back to the beginning.

Remember: We named roots, a stem and leaves. Where can we first find those parts as a seed begins to grow?

Start here: Choose the seed and one later stage. Describe a change.

Explore further: Connect the flowering stage to the pod and explain how the next generation begins.

What starts growing from the seed?

Answer cue: Roots grow down and a shoot grows up.

Where can new seeds be found in this picture?

Answer cue: Inside the pod on the plant.

Why does the picture lead back to a seed?

Answer cue: Those new seeds can grow into new plants, beginning the cycle again.

Keep the idea clear

This is a simple flowering-plant example. Plants differ; not every plant makes a pod.

Try: Tell a seed-to-seed story

Materials: The poster and an adult; optional paper and drawing materials. Describing or pointing is enough.

1. An adult draws six large spaces on paper, or points to the poster's six stages.
2. Together, draw, dictate or gesture one change at each stage. Revisit the labels when unsure.
3. Trace from the new seeds back to the start. Tell why the story can begin again.

What this can show: Look for an ordered account of growth and a link from new seeds to new plants. This poster's pod is one flowering-plant example.

Return to it: Choose a familiar growing plant to observe with an adult on different days. Record the date and what you actually see; do not expect a complete life cycle in a week.

A Plant's Life Cycle · In the classroom

A 20-minute classroom lesson

Prepare: Read the poster, answer cues and misconception note. Prepare only the materials named in the activity; keep a picture-only or described option available.

Words to explore

germination — The beginning of a seed's growth.

life cycle — The stages through which a living thing grows and produces a new generation.

3 min · Reconnect and wonder: How can one seed lead to more seeds? Invite an initial idea; record it without marking it right or wrong.

4 min · Look together: Choose the seed and one later stage. Describe a change. Introduce germination using the poster.

8 min · Investigate or represent: Use "Tell a seed-to-seed story." Let pairs take turns noticing and recording, with adult help and the activity's stated boundaries.

5 min · Explain and return: Ask the core check: How can one seed lead to more seeds? Accept pointing, words, signing or a drawing. If the learner is ready, offer this optional extension: Connect the flowering stage to the pod and explain how the next generation begins.

Understanding check: How can one seed lead to more seeds?

Answer guidance: A seed can germinate and grow into a plant; flowers can form fruits or pods containing new seeds, which can begin the cycle again. Look for an ordered account of growth and a link from new seeds to new plants. This poster's pod is one flowering-plant example.

Accept pointing, speech, signing, a drawing or adult dictation. Describe the illustration and use labels/position as well as color. Offer one contrast first, and use the extension when the learner is ready.

A response to keep

My idea or question

What I noticed (date/time if useful)

What I think now / my next question

<https://kiddos.ai/learn/learning-with-gina-and-ollie/plant-life-cycle>

Related story: How Does It Grow? — Follow Gina's seed-to-snack question, then return to the plant observations.

Our Solar System

How can we compare planets using reliable clues?

Learning aim: Use two labeled facts to compare planets while recognizing the diagram is not to scale.

A five-minute conversation

Find the Sun first and explain that it is a star. Follow the planets in order, pausing wherever your child is curious. Compare two poster facts, such as the smallest and largest planet. Remind your child that the picture fits everything onto one page, so the sizes and gaps are not shown to scale.

Remember: The Moon travels around Earth and reflects sunlight. Where is Earth among the planets that travel around the Sun?

Start here: Find Earth, then choose one other planet to name.

Explore further: Compare Mercury and Jupiter using their facts, then explain why measuring the drawing would not give their true sizes.

Which planet is our home?

Answer cue: Earth.

Which planet is largest, and which is smallest?

Answer cue: Jupiter is largest; Mercury is smallest.

What comes after Earth as we move away from the Sun?

Answer cue: Mars, then Jupiter, Saturn, Uranus and Neptune.

Keep the idea clear

The Sun is a star, and the Moon is not one of the eight planets. Use the labels rather than measuring the drawing.

Try: Make a two-planet comparison

Materials: The poster and an adult; optional paper and drawing materials. Describing or pointing is enough.

1. Choose two planets from the poster.
2. An adult reads their labels. Draw, dictate or point to one fact for each.
3. Explain a similarity or difference using those facts; distinguish our Sun and Moon from the eight planets.

What this can show: Accept a comparison grounded in the text, such as smallest and largest. Colors, drawn gaps and measured picture sizes are not a scale model.

Return to it: When you return, choose a different pair. What new question would you like an adult to help investigate?

Our Solar System · In the classroom

A 20-minute classroom lesson

Prepare: Read the poster, answer cues and misconception note. Prepare only the materials named in the activity; keep a picture-only or described option available.

Words to explore

planet — A large world traveling around a star; this poster shows the eight planets of our solar system.

orbit — A path around another object in space.

3 min · Reconnect and wonder: How can we compare planets using reliable clues? Invite an initial idea; record it without marking it right or wrong.

4 min · Look together: Find Earth, then choose one other planet to name. Introduce planet using the poster.

8 min · Investigate or represent: Use “Make a two-planet comparison.” Let pairs take turns noticing and recording, with adult help and the activity’s stated boundaries.

5 min · Explain and return: Ask the core check: How can we compare planets using reliable clues? Accept pointing, words, signing or a drawing. If the learner is ready, offer this optional extension: Compare Mercury and Jupiter using their facts, then explain why measuring the drawing would not give their true sizes.

Understanding check: How can we compare planets using reliable clues?

Answer guidance: A child can compare two labeled facts, such as Mercury being the smallest planet and Jupiter the largest. The drawn sizes and gaps cannot be measured as their true sizes and distances. Accept a comparison grounded in the text, such as smallest and largest. Colors, drawn gaps and measured picture sizes are not a scale model.

Accept pointing, speech, signing, a drawing or adult dictation. Describe the illustration and use labels/position as well as color. Offer one contrast first, and use the extension when the learner is ready.

A response to keep

My idea or question

What I noticed (date/time if useful)

What I think now / my next question

<https://kiddos.ai/learn/learning-with-gina-and-ollie/solar-system>

Related story: Gina and the Great Gravity Hug — Continue their questions about how things move and fall.

The Water Cycle

Where can water go after a puddle gets smaller?

Learning aim: Describe a pictured water journey while distinguishing diagram symbols from visible water.

A five-minute conversation

Begin at the lake and trace the water's journey together. Read the four labels slowly, connecting each word to the picture. Explain that the rising marks help us imagine evaporation: water vapor itself is invisible. Let your child choose a starting point and tell a short water-journey story using the scene.

Remember: We compared ice, liquid water and invisible water vapor. How might water move between places as it changes form?

Start here: Trace from the lake to the cloud and back toward the ground.

Explore further: Explain what is invisible during evaporation and what a cloud is made of.

What gives this cycle energy?

Answer cue: The Sun warms water.

What happens when water vapor cools and condenses?

Answer cue: It becomes tiny liquid drops that can make clouds.

Where can water gather after it falls?

Answer cue: In rivers, lakes and oceans.

Keep the idea clear

Cloud drops are liquid water; invisible water vapor is a gas. The drawn rising marks are a teaching symbol.

Try: A little water, observed over time

Materials: An adult, shallow unbreakable dish, a little water and paper or dictation.

1. An adult places a little water in a shallow unbreakable dish on a stable surface away from electronics and children's unsupervised access.
2. Record the water level with a drawing and the date; predict whether it will look the same later.
3. An adult helps revisit it on another day. Record what you actually see, then discuss evaporation as a possible explanation for a lower level. Empty the dish afterward.

What this can show: The level may change slowly and a dish can also lose water through spills. A falling level alone does not show visible vapor or prove every step of the whole cycle.

Return to it: On a later safe window look, notice clouds or rain. Which part of the diagram helps you talk about that observation?

The Water Cycle · In the classroom

A 20-minute classroom lesson

Prepare: Read the poster, answer cues and misconception note. Prepare only the materials named in the activity; keep a picture-only or described option available.

Words to explore

evaporation — Liquid water changing into water vapor.

condensation — Water vapor changing into liquid drops.

3 min · Reconnect and wonder: Where can water go after a puddle gets smaller? Invite an initial idea; record it without marking it right or wrong.

4 min · Look together: Trace from the lake to the cloud and back toward the ground. Introduce evaporation using the poster.

8 min · Investigate or represent: Use “A little water, observed over time.” Let pairs take turns noticing and recording, with adult help and the activity’s stated boundaries.

5 min · Explain and return: Ask the core check: Where can water go after a puddle gets smaller? Accept pointing, words, signing or a drawing. If the learner is ready, offer this optional extension: Explain what is invisible during evaporation and what a cloud is made of.

Understanding check: Where can water go after a puddle gets smaller?

Answer guidance: Some liquid water can change into invisible water vapor in the air through evaporation. In the wider cycle, vapor can condense into drops, and water can fall and collect again. The level may change slowly and a dish can also lose water through spills. A falling level alone does not show visible vapor or prove every step of the whole cycle.

Accept pointing, speech, signing, a drawing or adult dictation. Describe the illustration and use labels/position as well as color. Offer one contrast first, and use the extension when the learner is ready.

A response to keep

My idea or question

What I noticed (date/time if useful)

What I think now / my next question

<https://kiddos.ai/learn/learning-with-gina-and-ollie/water-cycle>

Related story: Where Did My Water Go? — Follow Gina and Ollie’s water question, then connect the story to the water you notice.

A Butterfly's Life Cycle

How does a caterpillar become an adult butterfly?

Learning aim: Put the four pictured stages in order and identify one body change.

A five-minute conversation

Find each of the four stages before reading the labels. A caterpillar is the butterfly's growing larval stage, and its body changes during the pupa stage inside a chrysalis. Invite your child to compare the caterpillar and adult, then trace the sequence back to eggs. The enlarged pictures help us see details.

Remember: We looked at an adult insect's body. Could its young stage look different?

Start here: Find the caterpillar and adult butterfly. Describe one difference.

Explore further: Explain why the chrysalis belongs between those two stages.

What hatches from the egg?

Answer cue: A caterpillar.

Which stage is also called a pupa?

Answer cue: The chrysalis stage.

How can the cycle start again?

Answer cue: An adult butterfly can lay eggs.

Keep the idea clear

A chrysalis is not simply a sleeping bag. The butterfly's body is changing during this stage.

Try: Sequence the change

Materials: The poster and an adult; optional paper and drawing materials. Describing or pointing is enough.

1. Draw or dictate four stage names in large spaces: egg, caterpillar, chrysalis and butterfly.
2. Mix up the order by pointing to different spaces; invite the child to show a possible sequence.
3. Check against the poster and connect the adult to new eggs.

What this can show: The chrysalis is the pupa stage during which the body changes; it is not merely a sleeping caterpillar.

Return to it: Compare this cycle with the frog cycle. Name one similarity in the sequence and one difference in the pictured bodies.

A Butterfly's Life Cycle · In the classroom

A 20-minute classroom lesson

Prepare: Read the poster, answer cues and misconception note. Prepare only the materials named in the activity; keep a picture-only or described option available.

Words to explore

caterpillar — The larval stage of a butterfly.

chrysalis — The butterfly's pupa stage.

3 min · Reconnect and wonder: How does a caterpillar become an adult butterfly? Invite an initial idea; record it without marking it right or wrong.

4 min · Look together: Find the caterpillar and adult butterfly. Describe one difference. Introduce caterpillar using the poster.

8 min · Investigate or represent: Use "Sequence the change." Let pairs take turns noticing and recording, with adult help and the activity's stated boundaries.

5 min · Explain and return: Ask the core check: How does a caterpillar become an adult butterfly? Accept pointing, words, signing or a drawing. If the learner is ready, offer this optional extension: Explain why the chrysalis belongs between those two stages.

Understanding check: How does a caterpillar become an adult butterfly?

Answer guidance: The sequence is egg, caterpillar, chrysalis and adult butterfly. The body changes during the chrysalis stage, and an adult can lay eggs. The chrysalis is the pupa stage during which the body changes; it is not merely a sleeping caterpillar.

Accept pointing, speech, signing, a drawing or adult dictation. Describe the illustration and use labels/position as well as color. Offer one contrast first, and use the extension when the learner is ready.

A response to keep

My idea or question

What I noticed (date/time if useful)

What I think now / my next question

<https://kiddos.ai/learn/learning-with-gina-and-ollie/butterfly-life-cycle>

Day and Night

Why can a place have daylight and later have night?

Learning aim: Explain the pictured change using Earth's turning and the Sun-facing side.

A five-minute conversation

Point to the Sun and find the bright side of Earth. Then find the side facing away. Choose one place in the illustration and imagine it moving as Earth turns. Keep the explanation focused on rotation: one turn takes about 24 hours. The diagram simplifies Earth and the Sun so the relationship is easier to see.

Remember: We noticed where light reaches a wall and where an object blocks it. Now use a different model to explore which side of Earth faces the Sun.

Start here: Point to the side facing the Sun and the side facing away.

Explore further: Follow one imagined place as Earth turns from daylight toward night.

Which side has daytime?

Answer cue: The side facing the Sun.

Why is the other side having night?

Answer cue: It faces away from the Sun.

What changes as Earth keeps turning?

Answer cue: A place moves into daylight and later into night.

Keep the idea clear

Day and night come from Earth turning. The Sun does not need to travel around Earth each day.

Try: Follow a place in the diagram

Materials: The poster and an adult; optional paper and drawing materials. Describing or pointing is enough.

1. Choose a place on the pictured Earth with a finger or an adult's description.
2. Trace the turning direction and describe when the place faces toward the Sun and away.
3. Compare a safe daytime window observation with one after dark if convenient. There is no need to stay awake or look at the Sun.

What this can show: The window comparison is an observation; Earth turning is the explanation illustrated by the model. The model's sizes and distances are not to scale.

Return to it: How would you explain night to someone who thinks the Sun goes around Earth each day?

Day and Night · In the classroom

A 20-minute classroom lesson

Prepare: Read the poster, answer cues and misconception note. Prepare only the materials named in the activity; keep a picture-only or described option available.

Words to explore

rotation — Turning around.

daylight — Light from the Sun reaching a place.

3 min · Reconnect and wonder: Why can a place have daylight and later have night? Invite an initial idea; record it without marking it right or wrong.

4 min · Look together: Point to the side facing the Sun and the side facing away. Introduce rotation using the poster.

8 min · Investigate or represent: Use “Follow a place in the diagram.” Let pairs take turns noticing and recording, with adult help and the activity’s stated boundaries.

5 min · Explain and return: Ask the core check: Why can a place have daylight and later have night? Accept pointing, words, signing or a drawing. If the learner is ready, offer this optional extension: Follow one imagined place as Earth turns from daylight toward night.

Understanding check: Why can a place have daylight and later have night?

Answer guidance: As Earth turns, a place moves onto the side facing the Sun and later onto the side facing away, bringing daylight and night. The window comparison is an observation; Earth turning is the explanation illustrated by the model. The model’s sizes and distances are not to scale.

Accept pointing, speech, signing, a drawing or adult dictation. Describe the illustration and use labels/position as well as color. Offer one contrast first, and use the extension when the learner is ready.

A response to keep

My idea or question

What I noticed (date/time if useful)

What I think now / my next question

<https://kiddos.ai/learn/learning-with-gina-and-ollie/day-and-night>

Related story: Gina and the Light Chase — Continue with Gina’s curiosity about light and shadows.

Five Familiar Senses

How can we notice and describe something together?

Learning aim: Describe one detail and identify a comfortable way of noticing it.

A five-minute conversation

Use the poster as an invitation to notice, not a test of what a child can do. Read a label and connect it to the pictured example. Offer a description whenever a visual or sound detail is not accessible. Children can point, speak, sign or simply listen; skip any sensory experience they do not want.

Start here: Choose one detail you can notice, or ask your adult to describe it.

Explore further: Describe the same object in two different ways. What information does each way give you?

Which sense helps us notice a sound?

Answer cue: Hearing.

What part of our body helps us feel texture?

Answer cue: Our skin; touch is not limited to our hands.

Which pictured detail would you like to explore or have described?

Answer cue: Any comfortable choice is welcome; there is no single right answer.

Keep the idea clear

These are five familiar senses, not a complete list. People experience senses differently. Only taste food an adult approves.

Try: A closer look at one familiar thing

Materials: The poster and an adult; optional paper and drawing materials. Describing or pointing is enough.

1. Choose a familiar book, cup or toy. Looking or hearing a description is enough; tasting is not part of this activity.
2. Name or point to one detail. Ask an adult to write your words or draw what you noticed.
3. Return to the same object and add one different detail.

What this can show: A description such as smooth, round or blue is an observation. A preference such as my favorite is a different kind of statement.

Return to it: Which detail did you notice the second time that you missed the first time?

Five Familiar Senses · In the classroom

A 20-minute classroom lesson

Prepare: Read the poster, answer cues and misconception note. Prepare only the materials named in the activity; keep a picture-only or described option available.

Words to explore

observe — Notice carefully using a comfortable sense or someone's description.

texture — How a surface feels or appears to feel.

3 min · Reconnect and wonder: How can we notice and describe something together? Invite an initial idea; record it without marking it right or wrong.

4 min · Look together: Choose one detail you can notice, or ask your adult to describe it. Introduce observe using the poster.

8 min · Investigate or represent: Use "A closer look at one familiar thing." Let pairs take turns noticing and recording, with adult help and the activity's stated boundaries.

5 min · Explain and return: Ask the core check: How can we notice and describe something together? Accept pointing, words, signing or a drawing. If the learner is ready, offer this optional extension: Describe the same object in two different ways. What information does each way give you?

Understanding check: How can we notice and describe something together?

Answer guidance: A child can describe a detail such as shape or texture and say, point to or have an adult describe how it was noticed. Different comfortable ways of participating are valid. A description such as smooth, round or blue is an observation. A preference such as my favorite is a different kind of statement.

Accept pointing, speech, signing, a drawing or adult dictation. Describe the illustration and use labels/position as well as color. Offer one contrast first, and use the extension when the learner is ready.

A response to keep

My idea or question

What I noticed (date/time if useful)

What I think now / my next question

<https://kiddos.ai/learn/learning-with-gina-and-ollie/five-senses>

The Four Seasons

What changes can we notice over a longer part of the year?

Learning aim: Compare a local observation with the poster's temperate-place examples.

A five-minute conversation

Read the season names and invite your child to find a clue in each scene. This poster shows a temperate-season example, so compare rather than expect an exact match to your home. Explain simply that Earth's tilt causes seasons as Earth travels around the Sun. Let a local observation lead the conversation.

Remember: We recorded what the weather was like on different days. What might a much longer record help us notice?

Start here: Choose one seasonal picture and describe a detail.

Explore further: Explain why our local season might look different from the illustration.

What clue suggests spring in this picture?

Answer cue: New buds or new growth.

Which pictured changes have you noticed near home?

Answer cue: Accept the child's observations, including differences from the poster.

Does winter always mean snow everywhere?

Answer cue: No. Seasonal weather and signs vary by location.

Keep the idea clear

Avoid fixed month rules or suggesting that all trees lose their leaves. Not every place has four distinct seasons like these.

Try: Return to one view

Materials: The poster and an adult; optional paper and drawing materials. Describing or pointing is enough.

1. Choose a familiar safe window view or adult-provided photograph.
2. Record the date and one detail, such as leaves, flowers or clothing people choose.
3. Revisit over coming weeks or months; compare with the earlier record and with the poster.

What this can show: A few days of weather do not establish a season. Seasons and their signs vary by place; snow and leaf loss are not universal.

Return to it: What can our record tell us so far, and what would need more time?

The Four Seasons · In the classroom

A 20-minute classroom lesson

Prepare: Read the poster, answer cues and misconception note. Prepare only the materials named in the activity; keep a picture-only or described option available.

Words to explore

season — A recurring part of the year with patterns that depend on location.

pattern — Something that repeats or shows a relationship over time.

3 min · Reconnect and wonder: What changes can we notice over a longer part of the year? Invite an initial idea; record it without marking it right or wrong.

4 min · Look together: Choose one seasonal picture and describe a detail. Introduce season using the poster.

8 min · Investigate or represent: Use “Return to one view.” Let pairs take turns noticing and recording, with adult help and the activity’s stated boundaries.

5 min · Explain and return: Ask the core check: What changes can we notice over a longer part of the year? Accept pointing, words, signing or a drawing. If the learner is ready, offer this optional extension: Explain why our local season might look different from the illustration.

Understanding check: What changes can we notice over a longer part of the year?

Answer guidance: A learner can describe a real change over time and compare it with a pictured seasonal example. Local signs may differ from the poster, and a few days cannot establish a seasonal pattern. A few days of weather do not establish a season. Seasons and their signs vary by place; snow and leaf loss are not universal.

Accept pointing, speech, signing, a drawing or adult dictation. Describe the illustration and use labels/position as well as color. Offer one contrast first, and use the extension when the learner is ready.

A response to keep

My idea or question

What I noticed (date/time if useful)

What I think now / my next question

<https://kiddos.ai/learn/learning-with-gina-and-ollie/four-seasons>

Related story: Where Did My Water Go? — Follow Gina and Ollie’s water question, then connect the story to the water you notice.

Parts of a Plant

How do a plant's parts help it live and grow?

Learning aim: Connect a root, stem or leaf to its pictured job.

A five-minute conversation

Begin with the whole plant, then move from the roots upward. Read each label while pointing to the matching part. Connect the jobs: roots take in water and nutrients, the stem supports and carries water, leaves use sunlight to make food, and flowers help make seeds. Keep the emphasis on noticing how parts work together.

Remember: We found roots in the soil picture. What might those roots do for a plant?

Start here: Point to a root and follow the stem upward.

Explore further: Explain why a plant needs both roots and leaves, using the labels as clues.

Which part takes in water from the soil?

Answer cue: The roots.

Which part supports the plant and carries water?

Answer cue: The stem.

What do leaves use sunlight to do?

Answer cue: Make food for the plant.

Keep the idea clear

Soil nutrients are not the same as ready-made plant food. This is a flowering-plant example, with enlarged details.

Try: Give each part a job

Materials: The poster and an adult; optional paper and drawing materials. Describing or pointing is enough.

1. Choose the pictured flowering plant or a familiar plant photograph; do not uproot a plant.
2. Draw or describe its roots, stem and leaves. Add a flower if the example has one.
3. An adult names a job from the poster. Match it to a part and explain the choice.

What this can show: Match roots with taking in water and nutrients, stem with support and carrying water, and leaves with making food using sunlight.

Return to it: When we look at a seedling next, which of these parts can we already recognize?

Parts of a Plant · In the classroom

A 20-minute classroom lesson

Prepare: Read the poster, answer cues and misconception note. Prepare only the materials named in the activity; keep a picture-only or described option available.

Words to explore

root — A plant part that takes in water and nutrients.

stem — A part that supports the plant and carries water.

3 min · Reconnect and wonder: How do a plant's parts help it live and grow? Invite an initial idea; record it without marking it right or wrong.

4 min · Look together: Point to a root and follow the stem upward. Introduce root using the poster.

8 min · Investigate or represent: Use "Give each part a job." Let pairs take turns noticing and recording, with adult help and the activity's stated boundaries.

5 min · Explain and return: Ask the core check: How do a plant's parts help it live and grow? Accept pointing, words, signing or a drawing. If the learner is ready, offer this optional extension: Explain why a plant needs both roots and leaves, using the labels as clues.

Understanding check: How do a plant's parts help it live and grow?

Answer guidance: Roots take in water and nutrients; the stem supports the plant and carries water; leaves use sunlight to make food. Accept one correctly explained part for the core check. Match roots with taking in water and nutrients, stem with support and carrying water, and leaves with making food using sunlight.

Accept pointing, speech, signing, a drawing or adult dictation. Describe the illustration and use labels/position as well as color. Offer one contrast first, and use the extension when the learner is ready.

A response to keep

My idea or question

What I noticed (date/time if useful)

What I think now / my next question

<https://kiddos.ai/learn/learning-with-gina-and-ollie/parts-of-a-plant>

Related story: How Does It Grow? — Follow Gina's seed-to-snack question, then return to the plant observations.

Animal Habitats

What makes a place a habitat for an animal?

Learning aim: Identify a pictured animal need and a feature that helps meet it.

A five-minute conversation

Explain that the poster visits four different places. Choose one animal and look for clues about how it lives there. Read its habitat fact, then introduce the shared needs of food, water, shelter and space. Your child can answer by pointing; a habitat does not need to resemble a human house.

Remember: Our tadpole lived in water. What else might an animal need from the place where it lives?

Start here: Choose one habitat and find its animal.

Explore further: Explain why moving an animal to a different habitat might leave a need unmet.

Which animal is shown using a desert burrow?

Answer cue: The fennec fox.

Where do the frog and tadpole belong in this poster?

Answer cue: The pond habitat.

What does an animal need from its habitat?

Answer cue: Food, water, shelter and space.

Keep the idea clear

These are separate example habitats, not one shared landscape. Animals cannot simply be moved from one to another.

Try: Design a paper habitat

Materials: The poster and an adult; optional paper and drawing materials. Describing or pointing is enough.

1. Choose one pictured animal and read its example together.
2. Draw or describe a place for it, marking food, water, shelter and space.
3. Use the poster to explain one choice, and name something you would need to learn before claiming the habitat meets every need.

What this can show: A habitat is more than a matching background. The poster gives examples; a child's design is a model, not a plan to keep wildlife.

Return to it: Look at the Camouflage poster. How does the background change what is easy to notice?

Animal Habitats · In the classroom

A 20-minute classroom lesson

Prepare: Read the poster, answer cues and misconception note. Prepare only the materials named in the activity; keep a picture-only or described option available.

Words to explore

habitat — A place where an animal finds what it needs.

shelter — A place offering protection.

3 min · Reconnect and wonder: What makes a place a habitat for an animal? Invite an initial idea; record it without marking it right or wrong.

4 min · Look together: Choose one habitat and find its animal. Introduce habitat using the poster.

8 min · Investigate or represent: Use “Design a paper habitat.” Let pairs take turns noticing and recording, with adult help and the activity’s stated boundaries.

5 min · Explain and return: Ask the core check: What makes a place a habitat for an animal? Accept pointing, words, signing or a drawing. If the learner is ready, offer this optional extension: Explain why moving an animal to a different habitat might leave a need unmet.

Understanding check: What makes a place a habitat for an animal?

Answer guidance: A habitat provides an animal with food, water, shelter and space. Accept a correctly linked example, such as the fennec fox’s burrow providing shelter. A habitat is more than a matching background. The poster gives examples; a child’s design is a model, not a plan to keep wildlife.

Accept pointing, speech, signing, a drawing or adult dictation. Describe the illustration and use labels/position as well as color. Offer one contrast first, and use the extension when the learner is ready.

A response to keep

My idea or question

What I noticed (date/time if useful)

What I think now / my next question

<https://kiddos.ai/learn/learning-with-gina-and-ollie/animal-habitats>

A Frog's Life Cycle

What changes as a tadpole grows into a frog?

Learning aim: Describe the pictured changes in legs and tail across a common pond-frog cycle.

A five-minute conversation

Trace the stages slowly and compare the animal's body at each step. Notice the tail first, then the back legs, the front legs and the shorter tail of the froglet. Explain that this is a common pond-frog example. Let your child describe changes in their own words before introducing the stage names.

Remember: We followed four stages in a butterfly's life. What changes might we notice in a different animal's life cycle?

Start here: Compare the tadpole's tail with the adult's body.

Explore further: Use two stages to explain which legs appear first in this example.

Where are the eggs shown?

Answer cue: In water, surrounded by jelly.

Which legs grow first in this example?

Answer cue: The back legs.

How does the adult differ from the tadpole?

Answer cue: It has legs and no tail.

Keep the idea clear

Frog life cycles vary. Observe wildlife with an adult; leave eggs, tadpoles and frogs where they are.

Try: A before-and-after comparison

Materials: The poster and an adult; optional paper and drawing materials. Describing or pointing is enough.

1. Choose the tadpole and froglet, then the froglet and adult.
2. Draw, point to or describe legs and tail in each pair.
3. Record what changed and check the order against the poster. Keep pond wildlife undisturbed.

What this can show: Back legs appear before front legs in the example; the tail shortens as the froglet develops. Frog life cycles vary.

Return to it: Use the Habitat poster to connect the tadpole to a place with water. What need does that setting meet?

A Frog's Life Cycle · In the classroom

A 20-minute classroom lesson

Prepare: Read the poster, answer cues and misconception note. Prepare only the materials named in the activity; keep a picture-only or described option available.

Words to explore

tadpole — A young stage of many frogs, usually with a swimming tail.

froglet — A young frog at the transition from tadpole to adult body form.

3 min · Reconnect and wonder: What changes as a tadpole grows into a frog? Invite an initial idea; record it without marking it right or wrong.

4 min · Look together: Compare the tadpole's tail with the adult's body. Introduce tadpole using the poster.

8 min · Investigate or represent: Use "A before-and-after comparison." Let pairs take turns noticing and recording, with adult help and the activity's stated boundaries.

5 min · Explain and return: Ask the core check: What changes as a tadpole grows into a frog? Accept pointing, words, signing or a drawing. If the learner is ready, offer this optional extension: Use two stages to explain which legs appear first in this example.

Understanding check: What changes as a tadpole grows into a frog?

Answer guidance: In this example, a tadpole grows back legs, then front legs while its tail shortens. The adult has legs and no tail. Back legs appear before front legs in the example; the tail shortens as the froglet develops. Frog life cycles vary.

Accept pointing, speech, signing, a drawing or adult dictation. Describe the illustration and use labels/position as well as color. Offer one contrast first, and use the extension when the learner is ready.

A response to keep

My idea or question

What I noticed (date/time if useful)

What I think now / my next question

<https://kiddos.ai/learn/learning-with-gina-and-ollie/frog-life-cycle>

How Shadows Work

What needs to be between a light and a screen to make this shadow?

Learning aim: Identify light source, blocking object and shadow in their correct relationship.

A five-minute conversation

Start with the pictured flashlight, then find the object and the screen. Trace the light's path and notice where the object blocks it. The discussion can stay entirely on the page. If you later try a flashlight activity, an adult should help and keep the light aimed at the screen, away from eyes.

Remember: Choose one comfortable way to notice or describe a detail. What do you already wonder about this picture?

Start here: Follow the picture from flashlight to object to screen.

Explore further: Predict what might happen when the object moves, then compare the result.

What is the source of light here?

Answer cue: The flashlight.

What makes the shadow appear?

Answer cue: The solid object blocks some light.

Where can we see the shadow in the picture?

Answer cue: On the screen behind the object.

Keep the idea clear

A shadow is an area where light has been blocked. It is not a dark object coming out of the flashlight.

Try: Move one shadow maker

Materials: An adult, cool flashlight, large opaque toy and clear wall.

1. An adult sets a cool flashlight toward a wall, away from eyes. Put a large opaque toy between the light and wall.
2. Keep the light and wall fixed. Predict, then move only the toy nearer the light or farther from it.
3. Describe or draw the shadow before and after. Repeat the same change to check your observation.

What this can show: The object blocks light reaching part of the wall. Record the actual change; the drawn rays are a model, not visible sticks.

Return to it: When you notice another shadow, identify what supplies light and what blocks it.

How Shadows Work · In the classroom

A 20-minute classroom lesson

Prepare: Read the poster, answer cues and misconception note. Prepare only the materials named in the activity; keep a picture-only or described option available.

Words to explore

light source — Something that gives out light.

shadow — An area receiving less light because something blocks it.

3 min · Reconnect and wonder: What needs to be between a light and a screen to make this shadow? Invite an initial idea; record it without marking it right or wrong.

4 min · Look together: Follow the picture from flashlight to object to screen. Introduce light source using the poster.

8 min · Investigate or represent: Use “Move one shadow maker.” Let pairs take turns noticing and recording, with adult help and the activity’s stated boundaries.

5 min · Explain and return: Ask the core check: What needs to be between a light and a screen to make this shadow? Accept pointing, words, signing or a drawing. If the learner is ready, offer this optional extension: Predict what might happen when the object moves, then compare the result.

Understanding check: What needs to be between a light and a screen to make this shadow?

Answer guidance: A solid object between the flashlight and wall blocks some light, leaving a darker area on the wall. The object blocks light reaching part of the wall. Record the actual change; the drawn rays are a model, not visible sticks.

Accept pointing, speech, signing, a drawing or adult dictation. Describe the illustration and use labels/position as well as color. Offer one contrast first, and use the extension when the learner is ready.

A response to keep

My idea or question

What I noticed (date/time if useful)

What I think now / my next question

<https://kiddos.ai/learn/learning-with-gina-and-ollie/how-shadows-work>

Related story: Gina and the Light Chase — Continue with Gina’s curiosity about light and shadows.

Ocean Light Zones

How does sunlight change as we look deeper into the ocean?

Learning aim: Compare the three simplified light zones and distinguish sunlight from animal-made light.

A five-minute conversation

Begin at the surface and move downward through the picture. Compare how much sunlight reaches each zone, using the names before the depth numbers. Explain that some animals in the dark ocean make their own light. The boundaries are approximate, and the drawing compresses a very deep ocean onto one page.

Remember: We asked where light reaches in a shadow model. Now explore a different situation: sunlight reaching into ocean water.

Start here: Find the brightest zone near the surface.

Explore further: Explain how a place without sunlight can still contain an animal that produces light.

Where does the ocean have the most sunlight?

Answer cue: Near the surface, in the sunlit zone.

How is the twilight zone different?

Answer cue: Only faint sunlight reaches it.

Can there be light in a zone without sunlight?

Answer cue: Yes. Some animals make their own light.

Keep the idea clear

The approximate 200 m and 1,000 m boundaries are a simplified guide. The illustration is not drawn to scale.

Try: Build a light-zone model

Materials: The poster and an adult; optional paper and drawing materials. Describing or pointing is enough.

1. Divide a sheet into three areas, or describe three levels aloud.
2. Label them sunlit, twilight and dark; use words or different patterns as well as optional colors.
3. Place the surface at the top and explain the change. Keep the poster's approximate depths as labels, not measured scale.

What this can show: Less sunlight reaches deeper water. An animal's own light is a different source; this paper model is not an experiment about exact ocean depth.

Return to it: Compare with the Shadow poster. What is similar about asking where light reaches, and what is different about the situation?

Ocean Light Zones · In the classroom

A 20-minute classroom lesson

Prepare: Read the poster, answer cues and misconception note. Prepare only the materials named in the activity; keep a picture-only or described option available.

Words to explore

surface — The top boundary of the water.

bioluminescence — Light produced by a living thing.

3 min · Reconnect and wonder: How does sunlight change as we look deeper into the ocean? Invite an initial idea; record it without marking it right or wrong.

4 min · Look together: Find the brightest zone near the surface. Introduce surface using the poster.

8 min · Investigate or represent: Use “Build a light-zone model.” Let pairs take turns noticing and recording, with adult help and the activity’s stated boundaries.

5 min · Explain and return: Ask the core check: How does sunlight change as we look deeper into the ocean? Accept pointing, words, signing or a drawing. If the learner is ready, offer this optional extension: Explain how a place without sunlight can still contain an animal that produces light.

Understanding check: How does sunlight change as we look deeper into the ocean?

Answer guidance: Most sunlight is near the surface, faint sunlight reaches the twilight zone and no sunlight reaches the dark zone. Some animals can produce their own light. Less sunlight reaches deeper water. An animal’s own light is a different source; this paper model is not an experiment about exact ocean depth.

Accept pointing, speech, signing, a drawing or adult dictation. Describe the illustration and use labels/position as well as color. Offer one contrast first, and use the extension when the learner is ready.

A response to keep

My idea or question

What I noticed (date/time if useful)

What I think now / my next question

<https://kiddos.ai/learn/learning-with-gina-and-ollie/ocean-light-zones>

Related story: Gina and the Light Chase — Continue with Gina’s curiosity about light and shadows.

What Is the Weather?

What is the weather like here, now?

Learning aim: Use observed clues to describe weather, including overlapping conditions.

A five-minute conversation

Read the weather words and ask your child to point to a matching clue. Then compare the poster with what you can safely observe from indoors. Weather describes the air and sky here and now, and it can change. Welcome more than one answer when conditions overlap, such as wind and rain.

Remember: We found clouds and falling water in the cycle. Which weather clues can we actually notice here today?

Start here: Choose one weather word that matches a safe window view.

Explore further: Give evidence for two weather words that can fit the same observation.

What clues show rainy weather?

Answer cue: Water drops falling from clouds.

Can two weather words fit the same day?

Answer cue: Yes—for example, windy and rainy.

What weather clues can you notice from the window?

Answer cue: Accept what is visible now; it may differ from the poster.

Keep the idea clear

The poster is for observing and naming weather, not forecasting it. Stay indoors during dangerous weather.

Try: Make a three-visit weather record

Materials: The poster and an adult; optional paper and drawing materials. Describing or pointing is enough.

1. Choose a safe indoor window or an adult's description of the local weather.
2. Record the date, time and one sky or plant-movement clue. More than one weather word may fit.
3. Repeat on two later days and compare actual observations rather than predicting from the poster.

What this can show: A record might show change or similarity. The five examples are not a forecast or an exhaustive list of weather.

Return to it: Which condition changed across your visits, and which appeared more than once?

What Is the Weather? · In the classroom

A 20-minute classroom lesson

Prepare: Read the poster, answer cues and misconception note. Prepare only the materials named in the activity; keep a picture-only or described option available.

Words to explore

weather — What the air and sky are like at a place and time.

wind — Moving air.

3 min · Reconnect and wonder: What is the weather like here, now? Invite an initial idea; record it without marking it right or wrong.

4 min · Look together: Choose one weather word that matches a safe window view. Introduce weather using the poster.

8 min · Investigate or represent: Use “Make a three-visit weather record.” Let pairs take turns noticing and recording, with adult help and the activity’s stated boundaries.

5 min · Explain and return: Ask the core check: What is the weather like here, now? Accept pointing, words, signing or a drawing. If the learner is ready, offer this optional extension: Give evidence for two weather words that can fit the same observation.

Understanding check: What is the weather like here, now?

Answer guidance: Accept the child’s actual evidence, such as raindrops or moving leaves, matched to an appropriate weather word. More than one condition can occur together. A record might show change or similarity. The five examples are not a forecast or an exhaustive list of weather.

Accept pointing, speech, signing, a drawing or adult dictation. Describe the illustration and use labels/position as well as color. Offer one contrast first, and use the extension when the learner is ready.

A response to keep

My idea or question

What I noticed (date/time if useful)

What I think now / my next question

<https://kiddos.ai/learn/learning-with-gina-and-ollie/weather>

Related story: Where Did My Water Go? — Follow Gina and Ollie’s water question, then connect the story to the water you notice.

Animal Coverings

What can an animal's covering help us notice?

Learning aim: Compare two pictured coverings without treating them as removable clothing.

A five-minute conversation

Begin with familiar animals in the picture and compare their coverings. Read the labels and connect them to their examples: fur helps keep many mammals warm, birds have feathers, many fish have scales, and a turtle's shell is part of its body. Use the pictures for comparison without handling animals.

Remember: Choose one comfortable way to notice or describe a detail. What do you already wonder about this picture?

Start here: Find Ollie's feathers or ask for a description of them.

Explore further: Explain why a turtle's shell is different from a coat someone can take off.

What covers Ollie's wings?

Answer cue: Feathers; Ollie is an owl, a kind of bird.

Which pictured covering helps keep many mammals warm?

Answer cue: Fur.

Can a turtle take off its shell like a coat?

Answer cue: No. The shell is part of its body.

Keep the idea clear

These are examples, not a rule that every animal has only one kind of covering or that all fish have scales.

Try: Compare two animal pictures

Materials: The poster and an adult; optional paper and drawing materials. Describing or pointing is enough.

1. Choose two animals from the poster or a familiar book.
2. Describe a visible covering on each; an adult can supply the description.
3. Record one similarity or difference and check the relevant poster label.

What this can show: Use fur, feathers, scales or shell where appropriate. Do not infer every feature or need of an animal from its covering.

Return to it: When we explore habitats, which needs remain important even when animals have different coverings?

Animal Coverings · In the classroom

A 20-minute classroom lesson

Prepare: Read the poster, answer cues and misconception note. Prepare only the materials named in the activity; keep a picture-only or described option available.

Words to explore

covering — What covers the outside of an animal's body.

feathers — The covering found on birds.

3 min · Reconnect and wonder: What can an animal's covering help us notice? Invite an initial idea; record it without marking it right or wrong.

4 min · Look together: Find Ollie's feathers or ask for a description of them. Introduce covering using the poster.

8 min · Investigate or represent: Use "Compare two animal pictures." Let pairs take turns noticing and recording, with adult help and the activity's stated boundaries.

5 min · Explain and return: Ask the core check: What can an animal's covering help us notice? Accept pointing, words, signing or a drawing. If the learner is ready, offer this optional extension: Explain why a turtle's shell is different from a coat someone can take off.

Understanding check: What can an animal's covering help us notice?

Answer guidance: A child can describe or compare the pictured fur, feathers, scales or shell. A turtle's shell is part of its body, not a removable coat. Use fur, feathers, scales or shell where appropriate. Do not infer every feature or need of an animal from its covering.

Accept pointing, speech, signing, a drawing or adult dictation. Describe the illustration and use labels/position as well as color. Offer one contrast first, and use the extension when the learner is ready.

A response to keep

My idea or question

What I noticed (date/time if useful)

What I think now / my next question

<https://kiddos.ai/learn/learning-with-gina-and-ollie/animal-coverings>

Inside Earth

How can a diagram help us explore something we cannot see directly?

Learning aim: Name the outside and center layers and recognize the cutaway as a simplified model.

A five-minute conversation

Explain that a cutaway is an imagined sliced-open view that helps us study hidden layers. Follow the labels from outside to center. Keep the contrasts clear: the crust is rocky, the mantle is mostly solid and flows very slowly, the outer core is liquid metal, and the inner core is solid metal.

Remember: We compared rock formation stories. Now zoom out from individual rocks to a model of Earth's layers.

Start here: Trace from the crust on the outside to the inner core in the center.

Explore further: Compare the solid inner core and liquid outer core without assuming all hot layers are liquid.

Which layer do we find on the outside?

Answer cue: The thin, rocky crust.

Which core layer is liquid?

Answer cue: The outer core.

Is the mantle a giant ocean of liquid?

Answer cue: No. It is mostly solid and can flow very slowly.

Keep the idea clear

The layer sizes and cutaway are simplified. "Very hot" does not mean that every inside layer is liquid.

Try: Explain a cutaway

Materials: The poster and an adult; optional paper and drawing materials. Describing or pointing is enough.

1. Draw nested shapes or follow the poster's cutaway with a description.
2. Label crust, mantle, outer core and inner core from the outside inward.
3. Tell which parts the drawing helps explain and why its colors and layer widths should not be measured as exact reality.

What this can show: The mantle is mostly solid rock that flows very slowly; the outer core is liquid metal and inner core solid metal. The diagram is not a photograph of an opened Earth.

Return to it: Compare with the Soil enlarged view. How do both drawings help show something hidden, and how are their scales different?

Inside Earth · In the classroom

A 20-minute classroom lesson

Prepare: Read the poster, answer cues and misconception note. Prepare only the materials named in the activity; keep a picture-only or described option available.

Words to explore

crust — Earth's thin rocky outside layer.

cutaway — A drawing that shows inside by leaving part of the outside out.

3 min · Reconnect and wonder: How can a diagram help us explore something we cannot see directly? Invite an initial idea; record it without marking it right or wrong.

4 min · Look together: Trace from the crust on the outside to the inner core in the center. Introduce crust using the poster.

8 min · Investigate or represent: Use "Explain a cutaway." Let pairs take turns noticing and recording, with adult help and the activity's stated boundaries.

5 min · Explain and return: Ask the core check: How can a diagram help us explore something we cannot see directly? Accept pointing, words, signing or a drawing. If the learner is ready, offer this optional extension: Compare the solid inner core and liquid outer core without assuming all hot layers are liquid.

Understanding check: How can a diagram help us explore something we cannot see directly?

Answer guidance: The layers from outside to center are crust, mantle, outer core and inner core. The cutaway helps show their arrangement, but is not a photograph or exact scale model. The mantle is mostly solid rock that flows very slowly; the outer core is liquid metal and inner core solid metal. The diagram is not a photograph of an opened Earth.

Accept pointing, speech, signing, a drawing or adult dictation. Describe the illustration and use labels/position as well as color. Offer one contrast first, and use the extension when the learner is ready.

A response to keep

My idea or question

What I noticed (date/time if useful)

What I think now / my next question

<https://kiddos.ai/learn/learning-with-gina-and-ollie/inside-earth>

Moon Phases

Why does the Moon seem to have different shapes?

Learning aim: Describe the changing view of the Moon's sunlit half without saying pieces disappear.

A five-minute conversation

Compare the four illustrated phases before introducing their names. Explain that the Moon reflects sunlight and that our view of its sunlit half changes as it orbits Earth. A quarter Moon looks like a half-lit circle in the sky. The poster shows a Northern Hemisphere view; the bright side can look different elsewhere.

Remember: Earth's turning explains day and night. Our next light question has a different explanation: why does the Moon's bright shape seem to change?

Start here: Find the full bright circle and a half-bright circle.

Explore further: Explain why the ordinary phase change is different from Earth casting a shadow on the Moon.

Which phase looks like a full bright circle?

Answer cue: The full Moon.

Does the Moon make its own sunlight?

Answer cue: No. It reflects sunlight.

Is part of the Moon disappearing during a phase?

Answer cue: No. We are seeing a different amount of its sunlit half.

Keep the idea clear

Ordinary Moon phases are not caused by Earth's shadow. The sequence takes about a month; the shown orientation is not universal.

Try: Keep a Moon-looking record

Materials: The poster and an adult; optional paper and drawing materials. Describing or pointing is enough.

1. With an adult, look for the Moon from a safe familiar place at a convenient time. Never look directly at the Sun.
2. If it is visible, record the date, time and bright shape by drawing or dictation; if not, simply record not seen.
3. Compare observations made on later days. Use the poster to discuss patterns without expecting a new visible shape every day.

What this can show: A missing sighting does not prove a new Moon; weather, buildings and timing affect visibility. The shown orientation is a Northern Hemisphere example.

Return to it: Compare two dated drawings. What changed in the bright part, and what remains uncertain?

Moon Phases · In the classroom

A 20-minute classroom lesson

Prepare: Read the poster, answer cues and misconception note. Prepare only the materials named in the activity; keep a picture-only or described option available.

Words to explore

phase — The Moon's apparent shape as we see its sunlit part.

reflect — Send light back from a surface.

3 min · Reconnect and wonder: Why does the Moon seem to have different shapes? Invite an initial idea; record it without marking it right or wrong.

4 min · Look together: Find the full bright circle and a half-bright circle. Introduce phase using the poster.

8 min · Investigate or represent: Use "Keep a Moon-looking record." Let pairs take turns noticing and recording, with adult help and the activity's stated boundaries.

5 min · Explain and return: Ask the core check: Why does the Moon seem to have different shapes? Accept pointing, words, signing or a drawing. If the learner is ready, offer this optional extension: Explain why the ordinary phase change is different from Earth casting a shadow on the Moon.

Understanding check: Why does the Moon seem to have different shapes?

Answer guidance: The Moon reflects sunlight. As it travels around Earth, we see different amounts of its sunlit half; the Moon is not losing pieces. A missing sighting does not prove a new Moon; weather, buildings and timing affect visibility. The shown orientation is a Northern Hemisphere example.

Accept pointing, speech, signing, a drawing or adult dictation. Describe the illustration and use labels/position as well as color. Offer one contrast first, and use the extension when the learner is ready.

A response to keep

My idea or question

What I noticed (date/time if useful)

What I think now / my next question

<https://kiddos.ai/learn/learning-with-gina-and-ollie/moon-phases>

Busy Bees and Pollination

How can a flower visitor help a plant make seeds?

Learning aim: Trace pollen moving between flowers of the same kind.

A five-minute conversation

Point to the bee and find the pollen in the illustration. Read the sequence: a bee visits flowers for nectar or pollen, pollen sticks to its body, and some can rub off on another flower of the same kind. Explain that this can help many plants make seeds. The diagram enlarges the tiny details.

Remember: Our growing plant reached the flower stage. How might a flower visitor help the story continue toward new seeds?

Start here: Point to the bee and the pollen in the picture.

Explore further: Explain what the bee carries and where some of it can rub off.

What can stick to the bee's body?

Answer cue: Pollen.

Where can the bee carry some pollen next?

Answer cue: To another flower of the same kind.

How can this help many plants?

Answer cue: It helps them make seeds.

Keep the idea clear

Bees are one example of pollinators. Observe them from a distance with an adult; do not touch or disturb them.

Try: Follow the visitor

Materials: The poster and an adult; optional paper and drawing materials. Describing or pointing is enough.

1. Use two flower drawings or the two pictured flowers.
2. Trace or describe a bee visiting the first flower and carrying pollen.
3. Continue to another flower of the same kind, then connect the journey to making seeds.

What this can show: Pollen moves on the visitor's body. The bee is not carrying ready-made seeds between the flowers.

Return to it: Return to the Plant Life Cycle picture. Where does this flower visit fit in the longer story?

Busy Bees and Pollination · In the classroom

A 20-minute classroom lesson

Prepare: Read the poster, answer cues and misconception note. Prepare only the materials named in the activity; keep a picture-only or described option available.

Words to explore

pollen — Tiny grains made by flowers that help with seed production.

pollination — Moving pollen to a flower part where it can help the plant make seeds.

3 min · Reconnect and wonder: How can a flower visitor help a plant make seeds? Invite an initial idea; record it without marking it right or wrong.

4 min · Look together: Point to the bee and the pollen in the picture. Introduce pollen using the poster.

8 min · Investigate or represent: Use “Follow the visitor.” Let pairs take turns noticing and recording, with adult help and the activity’s stated boundaries.

5 min · Explain and return: Ask the core check: How can a flower visitor help a plant make seeds? Accept pointing, words, signing or a drawing. If the learner is ready, offer this optional extension: Explain what the bee carries and where some of it can rub off.

Understanding check: How can a flower visitor help a plant make seeds?

Answer guidance: Pollen can stick to a visiting bee and rub onto another flower of the same kind, helping the plant make seeds. Pollen moves on the visitor’s body. The bee is not carrying ready-made seeds between the flowers.

Accept pointing, speech, signing, a drawing or adult dictation. Describe the illustration and use labels/position as well as color. Offer one contrast first, and use the extension when the learner is ready.

A response to keep

My idea or question

What I noticed (date/time if useful)

What I think now / my next question

<https://kiddos.ai/learn/learning-with-gina-and-ollie/pollination>

Related story: How Does It Grow? — Follow Gina’s seed-to-snack question, then return to the plant observations.

How Rainbows Form

What helps sunlight become a rainbow of colors?

Learning aim: Connect sunlight and water drops to the poster's explanation.

A five-minute conversation

Find the sunlight and water-drop clues, then follow the rainbow's curve. Read how drops bend and reflect light, spreading out sunlight's many colors. Trace from red toward violet while noticing that the colors blend. Your child can describe light and dark areas or listen to your description instead of naming every color.

Remember: Clouds and rain involve tiny liquid drops. What can happen when sunlight meets water drops?

Start here: Find the outer red part and trace inward.

Explore further: Explain why the colors are light rather than painted stripes in the sky.

What two things help make this rainbow?

Answer cue: Sunlight and water drops.

Which color is at the outside of the bow?

Answer cue: Red.

Are the colors separate painted stripes in the sky?

Answer cue: No. They are light, and the colors blend together.

Keep the idea clear

For looking at a rainbow outdoors, keep the Sun behind you. Never look directly at the Sun.

Try: Look, then represent

Materials: The poster and an adult; optional paper and drawing materials. Describing or pointing is enough.

1. Use the poster or an adult-selected rainbow photograph. Outdoor sightings are optional; never look directly at the Sun.
2. Name or have an adult describe neighboring colors and where they meet.
3. Draw or describe a curved rainbow with blending colors, then identify what the drawing cannot show about moving light.

What this can show: The drawing represents color order and blending; it does not itself demonstrate light bending and reflecting in water drops.

Return to it: Connect to the Water Cycle poster: which visible form of water is involved in a rainbow?

How Rainbows Form · In the classroom

A 20-minute classroom lesson

Prepare: Read the poster, answer cues and misconception note. Prepare only the materials named in the activity; keep a picture-only or described option available.

Words to explore

reflect — Send light back from a surface.

refract — Change light's direction as it enters or leaves a material.

3 min · Reconnect and wonder: What helps sunlight become a rainbow of colors? Invite an initial idea; record it without marking it right or wrong.

4 min · Look together: Find the outer red part and trace inward. Introduce reflect using the poster.

8 min · Investigate or represent: Use "Look, then represent." Let pairs take turns noticing and recording, with adult help and the activity's stated boundaries.

5 min · Explain and return: Ask the core check: What helps sunlight become a rainbow of colors? Accept pointing, words, signing or a drawing. If the learner is ready, offer this optional extension: Explain why the colors are light rather than painted stripes in the sky.

Understanding check: What helps sunlight become a rainbow of colors?

Answer guidance: Sunlight and water drops are involved: the drops bend and reflect light so its colors spread out into a rainbow. The colors blend rather than being painted stripes. The drawing represents color order and blending; it does not itself demonstrate light bending and reflecting in water drops.

Accept pointing, speech, signing, a drawing or adult dictation. Describe the illustration and use labels/position as well as color. Offer one contrast first, and use the extension when the learner is ready.

A response to keep

My idea or question

What I noticed (date/time if useful)

What I think now / my next question

<https://kiddos.ai/learn/learning-with-gina-and-ollie/rainbows>

Related story: Gina and the Light Chase — Continue with Gina's curiosity about light and shadows.

Seeds on the Move

How might a seed reach a new place?

Learning aim: Match each named seed example to wind, water or an animal.

A five-minute conversation

Look at one example at a time and ask what helps the seed move. Connect the dandelion to wind, the coconut to water and the acorn to the squirrel. Explain that some buried acorns are left to grow. These examples introduce different journeys; they are not a complete list of ways seeds spread.

Remember: Moving pollen can help flowers make seeds. How might those new seeds reach another place?

Start here: Find the dandelion's parachute-like shape.

Explore further: Compare two seed journeys. Which pictured feature or helper is different?

Which seed has a parachute-like shape?

Answer cue: The dandelion seed.

What helps the coconut travel in this example?

Answer cue: Water; it can float.

How can a squirrel help an acorn become a new plant?

Answer cue: It buries acorns, and some are left to grow.

Keep the idea clear

Not every seed can float or drift on wind. Use the three named examples rather than testing or scattering unknown seeds.

Try: Plan a pictured seed journey

Materials: The poster and an adult; optional paper and drawing materials. Describing or pointing is enough.

1. Choose the dandelion, coconut or acorn in the poster.
2. Draw or describe its starting place, helper and possible destination.
3. Use a label to explain the route. Keep imaginary details separate from the named example.

What this can show: Dandelion uses wind, coconut can float in water, and squirrels can bury acorns. These examples do not describe every seed.

Return to it: Look back at your seed journey. What would need to happen for a new plant to begin growing?

Seeds on the Move · In the classroom

A 20-minute classroom lesson

Prepare: Read the poster, answer cues and misconception note. Prepare only the materials named in the activity; keep a picture-only or described option available.

Words to explore

dispersal — Movement away from the parent plant.

parent plant — The plant that made the seed.

3 min · Reconnect and wonder: How might a seed reach a new place? Invite an initial idea; record it without marking it right or wrong.

4 min · Look together: Find the dandelion's parachute-like shape. Introduce dispersal using the poster.

8 min · Investigate or represent: Use "Plan a pictured seed journey." Let pairs take turns noticing and recording, with adult help and the activity's stated boundaries.

5 min · Explain and return: Ask the core check: How might a seed reach a new place? Accept pointing, words, signing or a drawing. If the learner is ready, offer this optional extension: Compare two seed journeys. Which pictured feature or helper is different?

Understanding check: How might a seed reach a new place?

Answer guidance: In these examples, wind carries dandelion seeds, water can carry coconuts, and squirrels bury acorns that may be left to grow. Dandelion uses wind, coconut can float in water, and squirrels can bury acorns. These examples do not describe every seed.

Accept pointing, speech, signing, a drawing or adult dictation. Describe the illustration and use labels/position as well as color. Offer one contrast first, and use the extension when the learner is ready.

A response to keep

My idea or question

What I noticed (date/time if useful)

What I think now / my next question

<https://kiddos.ai/learn/learning-with-gina-and-ollie/seeds-on-the-move>

Related story: How Does It Grow? — Follow Gina's seed-to-snack question, then return to the plant observations.

Sink or Float?

Can we predict a new object's result before testing it?

Learning aim: Make a prediction, record a floating or sinking result, and compare the two.

A five-minute conversation

Begin with the cork and spoon as results already shown. Name the surface and bottom, then explain that water pushes upward. For a real prediction, an adult chooses a new safe object not shown on the poster and follows the activity below. Welcome an uncertain guess, record the actual result and revisit the idea. Size alone does not tell us what will float.

Remember: Choose one comfortable way to notice or describe a detail. What do you already wonder about this picture?

Start here: Find the cork at the surface and the spoon at the bottom.

Explore further: Explain why one large object's result cannot tell us what all large objects will do.

Which object stays at the surface?

Answer cue: The cork.

Where is the steel spoon?

Answer cue: On the bottom; it sank.

Can size alone tell us what will float?

Answer cue: No. Size alone is not enough.

Keep the idea clear

If trying the poster activity, use a shallow, unbreakable bowl and large, adult-approved objects kept out of mouths. An adult stays beside the child and empties the water afterward.

Try: Predict, test, revisit

Materials: An adult, a shallow unbreakable bowl, a little water and one large safe-to-wet object.

1. An adult chooses one large, clean, nonbreakable object not shown on the poster, such as a suitable plastic toy without batteries or detachable parts, and checks it is safe to wet.
2. Before placing it in a shallow unbreakable bowl, say or draw a prediction: surface or bottom. An adult stays beside the child throughout.
3. Gently test it, record what actually happens and compare with the prediction. Keep objects out of mouths; the adult empties the bowl afterward.

What this can show: Predictions can differ from results. Record what this particular object does, including anything unexpected, without making a rule based on size alone.

Return to it: Describe one thing you would check before predicting what a different object will do.

Sink or Float? · In the classroom

A 20-minute classroom lesson

Prepare: Read the poster, answer cues and misconception note. Prepare only the materials named in the activity; keep a picture-only or described option available.

Words to explore

float — Stay supported at the surface in this example.

prediction — An idea about what might happen before we check.

3 min · Reconnect and wonder: Can we predict a new object's result before testing it? Invite an initial idea; record it without marking it right or wrong.

4 min · Look together: Find the cork at the surface and the spoon at the bottom. Introduce float using the poster.

8 min · Investigate or represent: Use "Predict, test, revisit." Let pairs take turns noticing and recording, with adult help and the activity's stated boundaries.

5 min · Explain and return: Ask the core check: Can we predict a new object's result before testing it? Accept pointing, words, signing or a drawing. If the learner is ready, offer this optional extension: Explain why one large object's result cannot tell us what all large objects will do.

Understanding check: Can we predict a new object's result before testing it?

Answer guidance: A child can make an idea before the test, describe where the object actually ends up and compare the two. A changed idea after observing is a useful outcome. Predictions can differ from results. Record what this particular object does, including anything unexpected, without making a rule based on size alone.

Accept pointing, speech, signing, a drawing or adult dictation. Describe the illustration and use labels/position as well as color. Offer one contrast first, and use the extension when the learner is ready.

A response to keep

My idea or question

What I noticed (date/time if useful)

What I think now / my next question

<https://kiddos.ai/learn/learning-with-gina-and-ollie/sink-or-float>

Sound Starts with Vibrations

What moves when a sound begins?

Learning aim: Connect the drum skin's back-and-forth movement to sound and recognize the wave marks as symbols.

A five-minute conversation

Find Gina's drum and point to its stretched skin. Explain that a gentle tap makes that part move back and forth; this movement is called vibration. Follow the drawn sound-wave lines toward the ears in the explanation. The lines help illustrate something we cannot see as lines in the air. Keep participation comfortable and quiet.

Remember: Choose one comfortable way to notice or describe a detail. What do you already wonder about this picture?

Start here: Point to the part Gina taps.

Explore further: Explain why the lines in the air are not strings we could see or touch.

What does Gina tap?

Answer cue: The drum skin.

What does "vibrate" mean?

Answer cue: Move back and forth.

What do the drawn lines represent?

Answer cue: Sound waves traveling through the air.

Keep the idea clear

The wave lines are diagram marks, not visible strings in the air. A child can explore the idea through the picture without listening to a sound.

Try: Represent a vibration

Materials: The poster and an adult; optional paper and drawing materials. Describing or pointing is enough.

1. Use the poster to identify the drum skin. Sound playback is optional and not needed.
2. Move a finger back and forth slowly, or ask an adult to describe that movement, as a model of vibrating.
3. Draw or describe the moving part and separately label the wave marks as diagram symbols.

What this can show: The finger model represents motion; it does not reproduce the drum's exact speed or measure sound. A child need not hear sound to participate.

Return to it: Find another pictured sound-maker in a book. What part might vibrate, and what would we need to investigate to know?

Sound Starts with Vibrations · In the classroom

A 20-minute classroom lesson

Prepare: Read the poster, answer cues and misconception note. Prepare only the materials named in the activity; keep a picture-only or described option available.

Words to explore

vibrate — Move back and forth.

sound wave — A traveling disturbance that can carry sound through a material such as air.

3 min · Reconnect and wonder: What moves when a sound begins? Invite an initial idea; record it without marking it right or wrong.

4 min · Look together: Point to the part Gina taps. Introduce vibrate using the poster.

8 min · Investigate or represent: Use “Represent a vibration.” Let pairs take turns noticing and recording, with adult help and the activity’s stated boundaries.

5 min · Explain and return: Ask the core check: What moves when a sound begins? Accept pointing, words, signing or a drawing. If the learner is ready, offer this optional extension: Explain why the lines in the air are not strings we could see or touch.

Understanding check: What moves when a sound begins?

Answer guidance: The drum skin moves back and forth when tapped: it vibrates. Sound travels through the air, and the drawn wave lines represent that movement rather than visible strings. The finger model represents motion; it does not reproduce the drum’s exact speed or measure sound. A child need not hear sound to participate.

Accept pointing, speech, signing, a drawing or adult dictation. Describe the illustration and use labels/position as well as color. Offer one contrast first, and use the extension when the learner is ready.

A response to keep

My idea or question

What I noticed (date/time if useful)

What I think now / my next question

<https://kiddos.ai/learn/learning-with-gina-and-ollie/sound-vibrations>

Related story: Gina and the Quiet Sounds — Continue with a gentle story about noticing sounds around us.

Three Kinds of Rocks

What can a rock's formation story tell us?

Learning aim: Connect each pictured rock example to a different formation process.

A five-minute conversation

Start by describing the pictured textures, then introduce the three names: igneous, sedimentary and metamorphic. Connect each to its example and formation story. Read that granite forms slowly underground, sandstone can form from sand, and heat can change rock into a different rock without melting it. Keep the focus on comparing processes, not memorizing labels.

Remember: Choose one comfortable way to notice or describe a detail. What do you already wonder about this picture?

Start here: Compare the sandy and speckled examples.

Explore further: Explain why looking at color alone would not identify every rock.

Which pictured rock looks sandy?

Answer cue: Sandstone.

Which type begins as melted rock that cools and hardens?

Answer cue: Igneous rock; granite is the example.

Does the rock melt when it changes into metamorphic rock?

Answer cue: No. It changes without melting.

Keep the idea clear

The pictures are examples, not a complete identification key. Color or texture alone cannot reliably identify every rock.

Try: Match a rock to its story

Materials: The poster and an adult; optional paper and drawing materials. Describing or pointing is enough.

1. Choose granite, sandstone and marble from the poster.
2. An adult reads the three formation explanations; match each to its named example.
3. Draw or dictate one formation story, keeping observed appearance separate from the explanation.

What this can show: Granite is the igneous example, sandstone sedimentary and marble metamorphic. These pictures are not a complete identification key.

Return to it: At the Inside Earth poster, find the rocky outside. What can the two posters tell us together?

Three Kinds of Rocks · In the classroom

A 20-minute classroom lesson

Prepare: Read the poster, answer cues and misconception note. Prepare only the materials named in the activity; keep a picture-only or described option available.

Words to explore

igneous — Formed when melted rock cools and hardens.

metamorphic — Rock changed by heat and/or pressure without melting.

3 min · Reconnect and wonder: What can a rock's formation story tell us? Invite an initial idea; record it without marking it right or wrong.

4 min · Look together: Compare the sandy and speckled examples. Introduce igneous using the poster.

8 min · Investigate or represent: Use "Match a rock to its story." Let pairs take turns noticing and recording, with adult help and the activity's stated boundaries.

5 min · Explain and return: Ask the core check: What can a rock's formation story tell us? Accept pointing, words, signing or a drawing. If the learner is ready, offer this optional extension: Explain why looking at color alone would not identify every rock.

Understanding check: What can a rock's formation story tell us?

Answer guidance: Igneous rock forms from cooling melted rock; the sedimentary example forms from particles pressed and stuck together; metamorphic rock changes without melting. Granite is the igneous example, sandstone sedimentary and marble metamorphic. These pictures are not a complete identification key.

Accept pointing, speech, signing, a drawing or adult dictation. Describe the illustration and use labels/position as well as color. Offer one contrast first, and use the extension when the learner is ready.

A response to keep

My idea or question

What I noticed (date/time if useful)

What I think now / my next question

<https://kiddos.ai/learn/learning-with-gina-and-ollie/three-rock-types>

Water Can Change

How can the same water look and behave differently?

Learning aim: Distinguish ice, liquid water and invisible water vapor.

A five-minute conversation

Compare the ice and liquid-water pictures first. Ice keeps its shape; liquid water flows and takes the shape of its container. Explain that water vapor is invisible, so the illustration can only help represent the change. Read that warming can melt ice and liquid water can evaporate. There is no need to heat anything for this discussion.

Remember: Choose one comfortable way to notice or describe a detail. What do you already wonder about this picture?

Start here: Point to the ice and the liquid. Which keeps its own shape?

Explore further: Explain why visible mist is not the same thing as invisible water vapor.

Which form of water keeps its own shape?

Answer cue: Solid ice.

Which pictured form flows into the shape of a container?

Answer cue: Liquid water.

Can we see water vapor in the air?

Answer cue: No. Water vapor itself is invisible.

Keep the idea clear

Visible mist is made of tiny water drops, not water vapor. "Can you pour it?" is a prompt about this water example, not a test for all materials.

Try: Watch ice change

Materials: An adult, shallow unbreakable dish and tray, an ice cube, paper or dictation.

1. An adult places one ice cube in a shallow unbreakable dish on a tray, out of mouths. No heating equipment is needed.
2. Predict what you may notice as it sits at room temperature, then draw or describe it.
3. Return later, record what actually changed, and compare with the first observation.

What this can show: Ice can melt into liquid water. Do not claim this observation lets us see water vapor, or that every object that pours is a liquid.

Return to it: Where does liquid water appear in the Water Cycle poster? How is its gas form represented?

Water Can Change · In the classroom

A 20-minute classroom lesson

Prepare: Read the poster, answer cues and misconception note. Prepare only the materials named in the activity; keep a picture-only or described option available.

Words to explore

solid — A state with its own shape, like ice.

water vapor — Water in its invisible gas state.

3 min · Reconnect and wonder: How can the same water look and behave differently? Invite an initial idea; record it without marking it right or wrong.

4 min · Look together: Point to the ice and the liquid. Which keeps its own shape? Introduce solid using the poster.

8 min · Investigate or represent: Use “Watch ice change.” Let pairs take turns noticing and recording, with adult help and the activity’s stated boundaries.

5 min · Explain and return: Ask the core check: How can the same water look and behave differently? Accept pointing, words, signing or a drawing. If the learner is ready, offer this optional extension: Explain why visible mist is not the same thing as invisible water vapor.

Understanding check: How can the same water look and behave differently?

Answer guidance: Ice is solid water with its own shape; liquid water flows and takes a container’s shape; water vapor is water in an invisible gas state. Ice can melt into liquid water. Do not claim this observation lets us see water vapor, or that every object that pours is a liquid.

Accept pointing, speech, signing, a drawing or adult dictation. Describe the illustration and use labels/position as well as color. Offer one contrast first, and use the extension when the learner is ready.

A response to keep

My idea or question

What I noticed (date/time if useful)

What I think now / my next question

<https://kiddos.ai/learn/learning-with-gina-and-ollie/water-three-states>

Related story: Where Did My Water Go? — Follow Gina and Ollie’s water question, then connect the story to the water you notice.

Pushes and Pulls

How can we tell a push from a pull?

Learning aim: Explain a pictured force in relation to the helper and object, not just left or right.

A five-minute conversation

Start with the pictures before reading the labels. Gina is touching the ball to push it away; Ollie holds the cart's handle to pull it closer. A force is a push or a pull, and it can change how something moves. Ask your child to point, describe or sign what they notice. Follow each arrow together, then read the explanation. There is no need to set up an experiment or answer every question.

Remember: Choose one comfortable way to notice or describe a detail. What do you already wonder about this picture?

Start here: Find the object Gina pushes and the object Ollie pulls.

Explore further: Explain why both arrows can point right while showing different actions.

What is Gina pushing? How can you tell?

Answer cue: The ball. Her raised hoof touches its side, and the arrow points away from her.

Which object is being pulled?

Answer cue: The cart. Ollie holds its handle, and the force arrow points toward him.

Both arrows point right. Why is one action a push and the other a pull?

Answer cue: Look at where the helper is. Gina pushes away from herself; Ollie pulls toward himself. Right does not always mean push or pull.

Keep the idea clear

The arrows show the force on the objects. A push or pull can change motion; it does not guarantee that an object moves. These are two examples, not a test comparing their strength or speed.

Try: Describe an everyday force

Materials: The poster and an adult; optional paper and drawing materials. Describing or pointing is enough.

1. Choose a pictured action or imagine pushing a toy car and pulling a drawer. No physical demonstration is required.
2. Describe where the helper and object are. Trace the force arrow on the object.
3. Swap the helper's imagined side and decide whether right or left alone can name the action.

What this can show: Away from or toward the helper distinguishes these examples. A force can change motion but does not guarantee movement.

Return to it: At the Ramps poster, point to the cart and describe what is pushing it.

Pushes and Pulls · In the classroom

A 20-minute classroom lesson

Prepare: Read the poster, answer cues and misconception note. Prepare only the materials named in the activity; keep a picture-only or described option available.

Words to explore

force — A push or a pull.

direction — Which way something points or acts.

3 min · Reconnect and wonder: How can we tell a push from a pull? Invite an initial idea; record it without marking it right or wrong.

4 min · Look together: Find the object Gina pushes and the object Ollie pulls. Introduce force using the poster.

8 min · Investigate or represent: Use “Describe an everyday force.” Let pairs take turns noticing and recording, with adult help and the activity’s stated boundaries.

5 min · Explain and return: Ask the core check: How can we tell a push from a pull? Accept pointing, words, signing or a drawing. If the learner is ready, offer this optional extension: Explain why both arrows can point right while showing different actions.

Understanding check: How can we tell a push from a pull?

Answer guidance: In the pictured examples, Gina pushes the ball away from herself and Ollie pulls the cart toward himself. Left or right alone does not distinguish the two actions. Away from or toward the helper distinguishes these examples. A force can change motion but does not guarantee movement.

Accept pointing, speech, signing, a drawing or adult dictation. Describe the illustration and use labels/position as well as color. Offer one contrast first, and use the extension when the learner is ready.

A response to keep

My idea or question

What I noticed (date/time if useful)

What I think now / my next question

<https://kiddos.ai/learn/learning-with-gina-and-ollie/pushes-and-pulls>

Related story: Gina and the Great Gravity Hug — Continue their questions about how things move and fall.

A Simple Food Chain

How do these food arrows connect the living things?

Learning aim: Trace the pictured food-to-eater arrows and explain one connection.

A five-minute conversation

Begin at the grass and look for the sunlight connection. Grass uses sunlight to make its food. Then trace the food arrows: rabbits eat grass, and foxes can eat rabbits. Each food arrow points from the food toward the eater, following energy through the chain. Let your child guide the route with a finger or words while you read. This is one example of how living things are connected, rather than a list of everything each animal eats.

Remember: We noticed animals within their surroundings. They also need food; how can a picture show who eats what?

Start here: Find the grass and follow its arrow to the rabbit.

Explore further: Explain why this single chain does not mean a fox eats only rabbits.

What helps the grass make its food?

Answer cue: Sunlight. Follow the sunlight connection down to the grass; the grass does not eat the Sun.

Why does the food arrow point from grass to rabbit?

Answer cue: The rabbit eats grass. Food arrows point from food to eater, following energy.

Does the poster mean that foxes eat only rabbits?

Answer cue: No. Rabbits are one example of a fox's food. The poster tells us that animals can eat other foods, too.

Keep the idea clear

Some children find animal feeding relationships surprising. Explain calmly that wild animals need food, without adding a chase or injury story. These are ordinary unnamed animals used as examples; Gina and Ollie are the observers.

Try: Tell the arrow story

Materials: The poster and an adult; optional paper and drawing materials. Describing or pointing is enough.

1. Name or describe grass, rabbit and fox in the poster.
2. Draw or gesture an arrow from grass to rabbit and from rabbit to fox.
3. Explain each arrow as food to eater; add sunlight as what helps grass make food.

What this can show: The arrows follow energy from food to eater. The grass does not eat the Sun, and this is only one possible feeding path.

Return to it: Connect the chain to a habitat. What else does an animal need besides the food shown here?

A Simple Food Chain · In the classroom

A 20-minute classroom lesson

Prepare: Read the poster, answer cues and misconception note. Prepare only the materials named in the activity; keep a picture-only or described option available.

Words to explore

food chain — One path connecting living things through feeding.

energy — What living things need to grow and do things.

3 min · Reconnect and wonder: How do these food arrows connect the living things? Invite an initial idea; record it without marking it right or wrong.

4 min · Look together: Find the grass and follow its arrow to the rabbit. Introduce food chain using the poster.

8 min · Investigate or represent: Use “Tell the arrow story.” Let pairs take turns noticing and recording, with adult help and the activity’s stated boundaries.

5 min · Explain and return: Ask the core check: How do these food arrows connect the living things? Accept pointing, words, signing or a drawing. If the learner is ready, offer this optional extension: Explain why this single chain does not mean a fox eats only rabbits.

Understanding check: How do these food arrows connect the living things?

Answer guidance: The arrows run from grass to rabbit and rabbit to fox because they point from food to eater. Sunlight helps grass make food. The arrows follow energy from food to eater. The grass does not eat the Sun, and this is only one possible feeding path.

Accept pointing, speech, signing, a drawing or adult dictation. Describe the illustration and use labels/position as well as color. Offer one contrast first, and use the extension when the learner is ready.

A response to keep

My idea or question

What I noticed (date/time if useful)

What I think now / my next question

<https://kiddos.ai/learn/learning-with-gina-and-ollie/simple-food-chain>

What's in Soil?

What could we find beneath a plant?

Learning aim: Name two soil components and distinguish the enlarged drawing from the real ground.

A five-minute conversation

Imagine looking through the ground instead of digging it up. Invite your child to find the plant's roots, a worm and a piece of old leaf. Soil contains mineral pieces and material from once-living things, as well as water, air and living organisms. The enlarged view helps us notice spaces between soil pieces. Some space holds water; some holds invisible air. Read one label at a time and let your child choose what to explore next.

Remember: Choose one comfortable way to notice or describe a detail. What do you already wonder about this picture?

Start here: Find a root and a worm, with a clue or description if helpful.

Explore further: Compare a living root, an old leaf piece and a mineral bit. What is different about them?

Which parts of the picture are alive?

Answer cue: The plant, including its roots, and the worm are living things. The old leaf fragments are no longer alive.

Where are air and water found in the enlarged view?

Answer cue: In spaces between soil pieces. They are not separate underground layers; air itself is invisible.

Is soil only tiny pieces of rock? What else can you find?

Answer cue: No. The picture also shows old plant material, roots and a worm, plus spaces holding water and air.

Keep the idea clear

This is a simplified cutaway, with an enlarged detail. Real soils vary and do not all contain the same amounts of each ingredient. Plants use sunlight to make food; soil is not food that roots eat.

Try: Make a view beneath the surface

Materials: The poster and an adult; optional paper and drawing materials. Describing or pointing is enough.

1. Look at the poster's surface and enlarged detail together.
2. Draw or describe a plant with roots below it; add old leaf pieces and spaces between soil pieces.
3. Explain which parts came from the picture and which details you imagined. No digging or collecting is needed.

What this can show: The drawing is a model. Air and water occupy spaces, not neat separate layers below the soil.

Return to it: Look back at your model after the Plant Parts lesson. What job could you add beside the roots?

What's in Soil? · In the classroom

A 20-minute classroom lesson

Prepare: Read the poster, answer cues and misconception note. Prepare only the materials named in the activity; keep a picture-only or described option available.

Words to explore

soil — A mixture that can include mineral pieces, material from once-living things, water, air and organisms.

model — A simplified way to show an idea.

3 min · Reconnect and wonder: What could we find beneath a plant? Invite an initial idea; record it without marking it right or wrong.

4 min · Look together: Find a root and a worm, with a clue or description if helpful. Introduce soil using the poster.

8 min · Investigate or represent: Use “Make a view beneath the surface.” Let pairs take turns noticing and recording, with adult help and the activity’s stated boundaries.

5 min · Explain and return: Ask the core check: What could we find beneath a plant? Accept pointing, words, signing or a drawing. If the learner is ready, offer this optional extension: Compare a living root, an old leaf piece and a mineral bit. What is different about them?

Understanding check: What could we find beneath a plant?

Answer guidance: The pictured soil contains mineral pieces, old leaf material, living roots and a worm, with air and water in spaces between pieces. The drawing is a model. Air and water occupy spaces, not neat separate layers below the soil.

Accept pointing, speech, signing, a drawing or adult dictation. Describe the illustration and use labels/position as well as color. Offer one contrast first, and use the extension when the learner is ready.

A response to keep

My idea or question

What I noticed (date/time if useful)

What I think now / my next question

<https://kiddos.ai/learn/learning-with-gina-and-ollie/whats-in-soil>

Related story: How Does It Grow? — Follow Gina’s seed-to-snack question, then return to the plant observations.

How Ramps Help

Why might a longer route upward be useful?

Learning aim: Compare route lengths to the same height and describe the ramp's force-distance trade.

A five-minute conversation

Begin with Gina and the cart. Let your child notice where the ramp starts and ends before reading the labels. A ramp is a sloping surface. It supports a load as the load moves upward. Trace the ramp route and compare it with the straight-lift route to the same platform height. A gentle ramp can reduce the force needed, but the load travels farther. Invite a guess, then return to the picture together. There is no need to build a ramp or lift anything.

Remember: We described a push or pull as a force. What is Gina pushing, and how could a ramp help the load reach a higher place?

Start here: Trace both routes to the platform.

Explore further: Explain which feature is visible in the picture and which claim about force comes from the explanation.

Where does the ramp start, and where does it lead?

Answer cue: It begins on the ground and slopes up to the low platform. Follow the cart's route with a finger, words or a gesture.

Which route to the platform is longer: up the slope or straight up?

Answer cue: The sloping route is longer. Both routes reach the same platform height.

Why might a longer route be helpful?

Answer cue: A gentle ramp supports the load and can reduce how much force is needed to move it upward. The trade is moving it over a longer distance.

Keep the idea clear

The arrows show routes, not how large the forces are. A ramp does not remove gravity or necessarily reduce the total work. Steepness and friction matter, which is why the poster says "can help."

Try: Compare two routes on paper

Materials: The poster and an adult; optional paper and drawing materials. Describing or pointing is enough.

1. An adult draws a low platform, a straight route up and a sloping route to the same top.
2. Trace or describe each route and compare their lengths.
3. Explain how a ramp supports a load and can reduce the force needed. No lifting, riding or building a ramp is required.

What this can show: The drawing lets us compare routes. It does not measure force or prove less total work; friction and steepness matter.

Return to it: Find a ramp in a familiar picture or recall one you have seen. What two levels does it connect?

How Ramps Help · In the classroom

A 20-minute classroom lesson

Prepare: Read the poster, answer cues and misconception note. Prepare only the materials named in the activity; keep a picture-only or described option available.

Words to explore

ramp — A sloping surface connecting different heights.

load — The object being moved or supported.

3 min · Reconnect and wonder: Why might a longer route upward be useful? Invite an initial idea; record it without marking it right or wrong.

4 min · Look together: Trace both routes to the platform. Introduce ramp using the poster.

8 min · Investigate or represent: Use “Compare two routes on paper.” Let pairs take turns noticing and recording, with adult help and the activity’s stated boundaries.

5 min · Explain and return: Ask the core check: Why might a longer route upward be useful? Accept pointing, words, signing or a drawing. If the learner is ready, offer this optional extension: Explain which feature is visible in the picture and which claim about force comes from the explanation.

Understanding check: Why might a longer route upward be useful?

Answer guidance: A gentle ramp supports a load and can reduce the force needed to move it up, in exchange for moving it along a longer route to the same height. The drawing lets us compare routes. It does not measure force or prove less total work; friction and steepness matter.

Accept pointing, speech, signing, a drawing or adult dictation. Describe the illustration and use labels/position as well as color. Offer one contrast first, and use the extension when the learner is ready.

A response to keep

My idea or question

What I noticed (date/time if useful)

What I think now / my next question

<https://kiddos.ai/learn/learning-with-gina-and-ollie/how-ramps-help>

Related story: Gina and the Great Gravity Hug — Continue their questions about how things move and fall.

All About Insects

How can we recognize the main parts of an adult insect?

Learning aim: Count six legs attached to the middle body region and distinguish antennae from legs.

A five-minute conversation

Start with the legs before introducing new words. Invite your child to count three on one side and three on the other. Follow them inward: all six attach to the thorax. Then look for the head and abdomen, and find the two antennae extending from the head. Antennae help an insect sense its surroundings. This enlarged diagram shows an adult worker ant; it is not the ant's real size. Read "thorax" and "abdomen" for your child and let noticing matter more than remembering the names.

Remember: We compared features such as fur and feathers. Now let's describe another animal by looking at its body parts and legs.

Start here: Follow three legs on one side, then three on the other.

Explore further: Use the attachment points to explain why the antennae are not extra legs.

How many legs can you find on each side? How many altogether?

Answer cue: Three on each side makes six legs. The two feelers at the head are antennae, not extra legs.

Where do all six legs join the body?

Answer cue: The thorax, the middle leg-bearing body region. Follow each leg back to its attachment.

What can you find on the head that is not a leg?

Answer cue: Two antennae. These sensory feelers help the ant detect information about the world around it.

Keep the idea clear

The diagram shows an adult worker ant. Insect young can look very different; caterpillar prolegs are not extra adult insect legs. Not all adult insects have wings. An ant's narrow waist links its middle and rear body sections; the six legs attach to the thorax, not the waist.

Try: Build an insect diagram on paper

Materials: The poster and an adult; optional paper and drawing materials. Describing or pointing is enough.

1. Draw or describe three main body regions: head, thorax and abdomen.
2. Add three legs on each side of the thorax and two antennae on the head.
3. Check each attachment against the enlarged ant, then label the picture as an adult insect model.

What this can show: All six legs join the thorax. The adult ant is an example; young insects can look different and wings are not required for every adult.

Return to it: Compare the adult butterfly and caterpillar in the Butterfly Life Cycle poster. Which stage does our adult-insect description concern?

All About Insects · In the classroom

A 20-minute classroom lesson

Prepare: Read the poster, answer cues and misconception note. Prepare only the materials named in the activity; keep a picture-only or described option available.

Words to explore

thorax — The middle body region where an insect's legs attach.

antennae — Sensory feelers on an insect's head.

3 min · Reconnect and wonder: How can we recognize the main parts of an adult insect? Invite an initial idea; record it without marking it right or wrong.

4 min · Look together: Follow three legs on one side, then three on the other. Introduce thorax using the poster.

8 min · Investigate or represent: Use "Build an insect diagram on paper." Let pairs take turns noticing and recording, with adult help and the activity's stated boundaries.

5 min · Explain and return: Ask the core check: How can we recognize the main parts of an adult insect? Accept pointing, words, signing or a drawing. If the learner is ready, offer this optional extension: Use the attachment points to explain why the antennae are not extra legs.

Understanding check: How can we recognize the main parts of an adult insect?

Answer guidance: The adult insect has head, thorax and abdomen, six legs attached to the thorax, and two antennae on its head. All six legs join the thorax. The adult ant is an example; young insects can look different and wings are not required for every adult.

Accept pointing, speech, signing, a drawing or adult dictation. Describe the illustration and use labels/position as well as color. Offer one contrast first, and use the extension when the learner is ready.

A response to keep

My idea or question

What I noticed (date/time if useful)

What I think now / my next question

<https://kiddos.ai/learn/learning-with-gina-and-ollie/all-about-insects>

Animal Camouflage

What makes an animal harder to notice against a background?

Learning aim: Point to a color, pattern or outline that helps explain blending in.

A five-minute conversation

Give your child time to search before offering clues. Begin with the moth on the bark, then look among the leaves for the toad. If either is hard to find, offer one location or shape clue and discover it together. Compare each animal with its background: similar colors and patterns can make the outline less obvious. That is camouflage. The animals are still there; they have not become invisible. You can point, describe, sign or listen together, and finding just one is enough.

Remember: We thought about an animal's surroundings. How might those surroundings affect how easy the animal is to notice?

Start here: Take your time finding the moth or toad. Ask for one clue whenever you want.

Explore further: Imagine the moth against plain white paper. Explain which clue might become easier to see.

What helped you notice the moth or the toad?

Answer cue: Accept any visible clue: an outline, an eye, a body shape or a change in pattern. The moth is on the trunk; the toad is among the leaves.

Which colors or patterns match each animal's surroundings?

Answer cue: The moth's gray-brown pattern resembles bark. The toad's earthy brown coloring resembles the leaf litter.

Does camouflage make the animal disappear?

Answer cue: No. The animal is still present. Its colors and patterns can make it harder to notice against that background.

Keep the idea clear

This picture shows blending in, not a decision to change color. Camouflage need not hide an animal perfectly. Offer a clue without making finding the animal a test; there is no speed target. Observe real wildlife without touching or disturbing it.

Try: Change the imagined background

Materials: The poster and an adult; optional paper and drawing materials. Describing or pointing is enough.

1. Find or have an adult describe one of the poster's animals.
2. Draw or imagine the same animal against a very different background.
3. Compare the two scenes and explain which details may stand out. Finding quickly is not the goal.

What this can show: The animal remains present. Its colors and patterns can make it harder to spot; this picture does not show it choosing to change color.

Return to it: Return to the original scene. Which clue would you offer someone else without giving away the whole discovery?

Animal Camouflage · In the classroom

A 20-minute classroom lesson

Prepare: Read the poster, answer cues and misconception note. Prepare only the materials named in the activity; keep a picture-only or described option available.

Words to explore

camouflage — Features that make an animal harder to notice in its surroundings.

pattern — An arrangement of colors or shapes.

3 min · Reconnect and wonder: What makes an animal harder to notice against a background? Invite an initial idea; record it without marking it right or wrong.

4 min · Look together: Take your time finding the moth or toad. Ask for one clue whenever you want. Introduce camouflage using the poster.

8 min · Investigate or represent: Use “Change the imagined background.” Let pairs take turns noticing and recording, with adult help and the activity’s stated boundaries.

5 min · Explain and return: Ask the core check: What makes an animal harder to notice against a background? Accept pointing, words, signing or a drawing. If the learner is ready, offer this optional extension: Imagine the moth against plain white paper. Explain which clue might become easier to see.

Understanding check: What makes an animal harder to notice against a background?

Answer guidance: Matching colors or patterns can make an animal harder to notice against a particular background. The animal is still there. The animal remains present. Its colors and patterns can make it harder to spot; this picture does not show it choosing to change color.

Accept pointing, speech, signing, a drawing or adult dictation. Describe the illustration and use labels/position as well as color. Offer one contrast first, and use the extension when the learner is ready.

A response to keep

My idea or question

What I noticed (date/time if useful)

What I think now / my next question

<https://kiddos.ai/learn/learning-with-gina-and-ollie/animal-camouflage>

Our Earth: Land, Water & Continents

Parent & teacher guide · Ages 4–8 with a grown-up

A five-minute conversation

Identify one land area and one water area, explain which covers more of Earth's surface, and find one named continent with adult support.

Start beside Gina at the globe: "What do you notice?" Explain that a globe is a round model of Earth, and this map shows Earth on a flat surface. Find one land area and one water area together. Next, count the ten equal parts in the strip: seven blue parts represent water and three represent land, approximately. Finally, let your child choose one continent to find. Read its name together; remembering all seven names is optional.

Can you show me some land and some water?

Answer cue: Point to a continent for land and to the blue ocean around it for water. Antarctica counts as land even though ice covers it. Use the labels and shapes as well as colors.

What covers more of Earth's surface: water or land? What picture clue helps?

Answer cue: Water covers more. The strip has seven equal blue parts and three land parts. It is a rounded model of surface area; the more precise figure is about 71% water-covered.

Which continent do we live on, and where can we find it?

Answer cue: An adult identifies the family's continent using a familiar atlas or globe if needed, then helps the child locate its label. The answer depends on where the family lives. This overview does not show cities or every island, and no address needs to be shared.

Keep the idea clear

This poster uses a common seven-continent model: North America, South America, Europe, Africa, Asia, Australia and Antarctica. Schools may group or name continents differently. Oceania is a wider region that includes Australia and many Pacific islands. Europe and Asia share connected land. Map colors help separate regions; they do not show the real color of all land. Flat maps change shapes and sizes, and the globe view shows only one side at a time. A few islands are shown in a neutral color; their regional groupings can be explored with a more detailed atlas.

One new noticing is enough. Pointing, speaking, signing, drawing or listening are all ways to join in.

Take a finger journey

Materials: The poster and an adult; optional paper and crayons. A globe or atlas may help an adult locate a home continent, but no purchase or physical trip is needed.

1. Choose one labeled continent on the poster. Read or listen to its name together.
2. Trace along part of its coast with a finger, or ask an adult to describe the meeting of land and ocean. No writing on the poster is needed.
3. Choose another continent and describe where it is on this map. If an ocean lies between them, point to the water in between.
4. Optional: draw a simple land shape with water beside it. Say that it is your model, not an exact world map.

What the model can show

A coastline is where land meets the sea. The poster is a simplified map for finding broad regions. Its decorative colors and flat shape should not be measured as exact Earth areas; use the equal ten-part strip for the approximate land/water comparison.

A response to keep

The continent I explored

The land and water I noticed

A place I would like to learn about next

Follow the learning

Return to the map after the Water Cycle poster. Find an ocean and imagine one drop's next step into the cycle.

Where Did My Water Go? — Continue from water on Earth to Gina and Ollie's story about where water goes. This is a water-cycle connection, not a continents atlas.

Sources

U.S. Geological Survey · How Much Water is There on Earth?:

<https://www.usgs.gov/water-science-school/science/how-much-water-there-earth>

National Geographic Education · Continent: <https://education.nationalgeographic.org/resource/Continent/>

National Geographic Education · Globe: <https://education.nationalgeographic.org/resource/globe/>

National Geographic Education · Map: <https://education.nationalgeographic.org/resource/map/>

In the classroom

A 20-minute lesson

Learning aim: Learners identify land and water, use the ten-part strip to compare surface coverage, and locate one continent with support.

Prepare: Display or print the poster. Read the three answer cues and the continent-convention note. Check the home-continent answer before the lesson; do not collect children's addresses. Optional atlas or globe, paper and crayons.

Words to explore

globe — A round model of Earth.

map — A flat picture that represents a place.

continent — A large region of Earth's land.

surface — The outside of something.

3 min · Notice the globe

Invite one observation. Name globe as a round model and map as a flat representation.

5 min · Find and compare

Point to one land area and water. Count the ten equal parts together, then compare seven and three. Explain that the strip is approximate.

8 min · Take a finger journey

Pairs choose a continent and take turns locating it and following a coast on the poster. Offer adult description as an equal participation option.

4 min · Explain and connect

Ask the core check. Let learners point, speak, sign, draw or dictate. Invite one next topic: water's journey, an animal habitat or Earth's inside layers.

Understanding check

Show land and water. Which covers more of Earth's surface, and how does the strip help us tell?

Answer guidance: A named continent is land; the surrounding blue ocean is water. Seven of the strip's ten equal parts are blue and three are land, so it represents more water than land. This is approximate. Identify any one labeled continent with adult help; full seven-name recall is not required.

For a first step, compare just land and water. Read names aloud or describe shapes and positions. For an extension, compare two continent positions or notice connected Europe and Asia. Accept pointing, speech, signing, listening or a drawing; color naming is not required.

Next discoveries

Solar System — Zoom out to see Earth among the eight planets.

Water Cycle — After finding water on Earth, follow how it moves through the water cycle.

Animal Habitats — Zoom in from a continent to the food, water, shelter and space an animal needs.

Inside Earth — Compare Earth's surface with a cutaway of the layers beneath it.

Our discovery record

Use words, marks, a drawing or an adult's notes. Keep this page with you; nothing needs to be uploaded.

Date / time (if useful): _____

My question or idea

What I noticed

What I think now

What I want to explore next

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