

NEW FOR THE 2026-27 SCHOOL YEAR

PreK Science

Scope and Sequence

COMPLETE PHENOMENA-BASED
SCIENCE CURRICULUM MADE EASY

- ✓ PHENOMENA-BASED
- ✓ OPEN-AND-GO LESSONS
- ✓ HANDS-ON INVESTIGATIONS
- ✓ AVAILABLE IN 50+ LANGUAGES
- ✓ ASSESSMENTS & PROGRESS MONITORING



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inquisitive

Ready to
teach lesson
slides

The screenshot shows the Inquisitive lesson interface for the unit '3. Inheritance and Variation of Traits'. The main content area displays a grid of eight dog faces with the question 'How are dogs the same and different?' overlaid. Below this grid are three smaller preview cards for the lesson slides. The right sidebar contains the 'Lesson Overview' text, a 'Lesson Materials Calculator' table, and a list of standards including NGSS Performance Expectations (3-LS3-1), Science and Engineering Practices (SEPs), Disciplinary Core Ideas (DCIs), Crosscutting Concepts (CCCs), and Patterns.

Lesson Overview

This lesson begins with a visit to the dog park—a virtual one. Students meet a variety of dogs, and note their common features and their distinct differences. They learn that these features are called traits, and that the differences between traits are called [Read More](#)

Lesson Materials Calculator

How many students are in your class?

30 Save Class Size

Apple	30
Knife - sharp	1
Recording sheet	30
Ruler	10
Toothpick	30

NGSS Performance Expectations

[3-LS3-1](#)

Science and Engineering Practices (SEPs)

[Analyzing and Interpreting Data](#)

Disciplinary Core Ideas (DCIs)

[Variation of Traits](#)

[Inheritance of Traits](#)

Crosscutting Concepts (CCCs)

[Patterns](#)

Phenomena-based Learning

Each lesson is anchored in a compelling phenomenon that gives students a meaningful reason to investigate, ask questions, and make sense of the world around them.

Designed for three-dimensional learning, students integrate Science and Engineering Practices, Disciplinary Core Ideas, and Crosscutting Concepts as they gather evidence, collaborate, develop explanations, and design solutions.

The result is science learning that is rigorous, relevant, and engaging for every learner.

The screenshot displays a lesson interface. On the left, a large image shows silhouettes of children playing tug-of-war against a sunset background. A white text box in the center of the image asks, "Can a game of tug-of-war end in a draw?". Below the image is a purple "Next" button. On the right, a sidebar contains several sections: "Lesson Overview" with a brief description and a "Read More" link; "Lesson Materials Calculator" with a form to input class size (set to 30) and a "Save Class Size" button, followed by a list of materials (Hair dryer: 8, Ping-pong ball: 8) and a feedback link; "Standards" with a link to view the full list and a list of standards including "NGSS", "Idaho", "NGSS Performance Expectations", "3-PS2-1", "Science and Engineering Practices (SEPs)", "Planning and Carrying Out Investigations", "Connections to Nature of Science (NOS)", "Scientific Investigations Use a Variety of Methods", "Disciplinary Core Ideas (DCIs)", "Types of Interactions", "Forces and Motion", "Crosscutting Concepts (CCCs)", and "Cause and Effect".

Digital slides with embedded stimuli & printables

Teacher guide

Materials calculator

Standards alignment

HQIM and Standards-aligned

Inquisitive provides coherent, standards-aligned instruction designed to build knowledge and skills. Comprehensive state-specific crosswalks provide lesson-by-lesson evidence of alignment, while embedded assessments, differentiation strategies, accessibility supports, and research-based instructional practices help every student access grade-level learning.

Every lesson includes ready-to-teach digital slides, embedded stimuli, printable resources, teacher guidance, modeled responses, background science, and a materials calculator. Everything teachers need to deliver high-quality science instruction, simply open and go.

The screenshot shows a digital interface for a science activity. On the left, a purple sidebar contains a '2 Assign' button and navigation arrows. The main content area is divided into sections. The top section has a purple box with text: 'All materials are made of something called **matter**. Matter is anything that takes up space.' To the right of this box, it says 'Milk is one kind of material.' and shows a glass pitcher filled with milk. Further right, it says 'A glass pitcher is another kind of material.' Below this, a central box contains images of various materials: a bundle of yellow sticks, a blue bucket filled with brown soil, a clear plastic bottle of water, a red paperclip, and several colored pencils. To the left of this central box, there are two text boxes with questions: 'How are the materials the same?' and 'How are they different?'. To the right of the central box, there are two more text boxes with questions: 'How are the materials the same?' and 'How are they different?'. On the far right, a sidebar contains a 'Core Activity' section with a link 'Learn about Differentiation with Inquisitive', a 'Time' field set to '20 mins', a 'Teaching Notes' section with instructions, an 'Answers' section, a 'Se Pedagogical Model' section, and an 'Activity Materials' section. At the bottom right of the sidebar are buttons for 'Next' and 'Exit'.

2 Assign

All materials are made of something called **matter**. Matter is anything that takes up space.

Milk is one kind of material.

A glass pitcher is another kind of material.

→ Your teacher will give you some different materials to explore. Touch and feel each material. Then talk about the questions.

←

How are the materials the same?

How are they different?

→

←

Core Activity ⓘ

[Learn about Differentiation with Inquisitive](#)

Time 20 mins

Teaching Notes

Read the information in the purple box, and then ask students to name anything they see around them that is matter. All answers are correct here. Acknowledge and elaborate on their responses to include a variety of solids and liquids around the classroom. Include their clothing and parts of their bodies (skin, hair, bones, blood, tears, etc).

(You may like to narrow the focus of these questions by selecting just two or three things to compare. For example, "how are the paperclips different to the pencils? How are they the same?")

Answers

Se Pedagogical Model

Activity Materials

← Next

Give us Feedback

Settings

Download

Exit

Hands-On Science That Builds Sensemaking

Hands-on investigations combine easy-to-source materials with engaging digital interactives, helping teachers spend less time preparing and more time teaching.

Students ask questions, make observations, gather evidence, test ideas, and develop explanations as they make sense of real-world phenomena. They learn science by thinking and acting like scientists and engineers, not simply watching science happen. Optional grade-level kits and refill kits make implementation even easier. Each kit is designed to support a class of up to 30 students.

The screenshot displays the Inquisitive app interface. On the left, a lesson titled "6 Assigned" explains that all matter is composed of tiny particles. It features three panels illustrating the states of matter: Solid (Sólido), Liquid (Líquido), and Gas (Gas). Each panel includes a diagram and a description in Spanish. A sidebar on the right, titled "Translate", lists various languages including English, Spanish, Arabic, Armenian, Bengali, and Chinese (Simplified). A black arrow points to the "Translate" icon in the sidebar, with the word "Translate" written next to it.

Toda la materia está compuesta de diminutos **partículas**. Son demasiado pequeños para ser vistos excepto con un microscopio muy potente. Incluso el grano de arena más diminuto está compuesto de partículas aún más diminutas.

Sólido

En un sólido, las partículas están muy unidas. Viben, pero no pueden moverse de su lugar.

Líquido

En un líquido, las partículas son no tan apretado como en un sólido. Pueden deslizarse uno al lado del otro.

Gas

En un gas, las partículas están mucho más separadas que en un sólido o un líquido. Pueden moverse con libertad y rapidez.

translated by Google

Translate

Available in 50+ Languages

Equity, Access, and Differentiation

Built-in scaffolds, differentiation strategies, and culturally responsive content help reduce barriers to rigorous science learning while keeping students engaged in shared phenomena, investigations, and evidence-based thinking.

Language and accessibility supports are embedded directly into lessons, including text-to-speech, assistive technology compatibility, WCAG compliance, and translation into 50+ languages. These integrated supports help more students access grade-level science while giving teachers practical tools to respond to diverse learning needs.

Assign activities as you teach

Materials in water and soil can change the traits of plants. Weather can also affect their traits.

Read about the examples below. Then draw and label a picture to answer each *What if?* question.

Strong wind has caused this tree to grow sideways.

Lack of rainfall has caused parts of these plants to become brown.

What if the wind was less strong? What would the tree look like?

What if enough rain did fall? What would the corn plants look like?

Responses

Responses

Core Activity ①

[Learn about Differentiation with Inquisitive](#)

Time 10 mins

Teaching Notes

Answers

5e Pedagogical Model

Level of student attainment & observations of student performance

Recommendations for Support

Next

Real-time student responses

Student performance expectations and recommendations for support

Check for Understanding in Real-Time

Live student responses provide immediate insights into student thinking, enabling teachers to identify misconceptions, adjust instruction, and facilitate meaningful student discussions and collaborations.

For instructional leaders, this means formative data is captured in the moment, supporting evidence-based decisions at the classroom and grade level, not just at the end of a unit.

Assign digitally or print in 50+ languages.

The screenshot displays the Inquisitive assessment interface. The main area shows a question: "9. Which of these are light sources? Choose all correct answers." Below the question are four options: Sun, Lamp, Eye, and Water. The Sun and Lamp options are marked with green checkmarks, indicating they are correct. The Eye and Water options are marked with red X's, indicating they are incorrect. Below the question is a text box for question 10: "10. A person shines a flashlight into a dark closet to find a pair of shoes. Describe the path of light that lets the person see the shoes. Use the word **reflect** in your answer." The right sidebar shows the "Unit Quiz 1" activity, a list of answers for the questions, and a "Show Answers" button. Below the answers is an "Example Answer" for question 10, which describes the path of light from the flashlight to the shoes, reflecting off the shoes, and then to the person's eyes. The sidebar also includes a "Teaching Sequence" section with icons for Activities, Teaching Sequence, Students (0/20), Translate, Give us Feedback, and Settings.

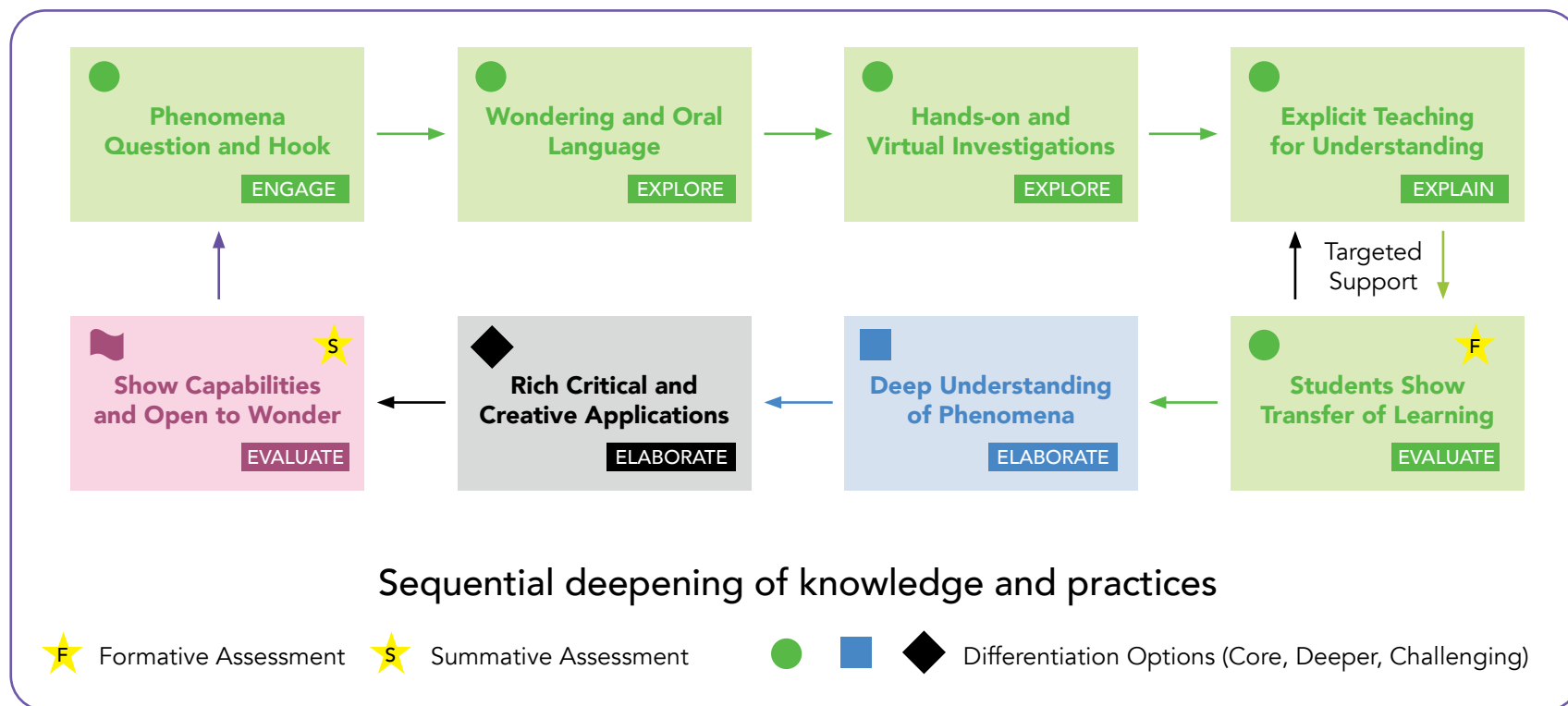
Auto-graded assessment data is displayed in a digital grade book.

Assessment and Standards Mastery

Formative and summative assessments include 3D performance tasks and auto-graded end-of-unit assessments.

Results are summarized in a digital grade book with recommendations for support, giving teachers clear next steps for instruction.

Assessment items are mapped to specific Performance Expectations, so districts can track standards mastery and support MTSS and RTI documentation needs.



Pedagogical Model of Lessons

Every lesson is built around the research-based 5E instructional model, guiding students through engagement, exploration, explanation, elaboration, and evaluation.

High-impact teaching strategies and visible thinking activities support student-centered sensemaking, conceptual understanding, and knowledge transfer while helping all learners access rigorous science learning.

PreK

K

1

2

3

4

5

PHYSICAL SCIENCE



Pushes and Pulls
Explore pushes and pulls



Forces and Interactions
Compare strength and direction



Waves: Light and Sound
Make sound and light travel



Structure of Matter
Describe and change materials



Forces and Interactions
Balanced and unbalanced forces



Energy
Motion, collisions, and transfer



Gravity
Apply force ideas to earth and space

LIFE SCIENCE



Living Things
What makes something alive



What Living Things Need
Needs of plants and animals



Structure and Function
Parts that help survival



Interdependent Relationships
Habitats and food



Inheritance and Variation
Life cycles and traits



Structure and Function
Food energy & cycling through ecosystems



Matter and Energy
Internal systems and senses

EARTH & SPACE SCIENCE



Weather
Observe local weather



Weather and Climate
Describe weather patterns



Space Systems
Patterns of the sun, moon, and stars



Processes That Shape Earth
Fast and slow land change



Weather and Climate
Predict patterns and climate



Earth's Changing Surface
Weathering, erosion, and mapping



Earth's Systems
Interacting Earth systems

ENGINEERING DESIGN

Engineering design is integrated across all grades as students ask questions, design and test solutions, and use evidence to improve their ideas.

Knowledge Builds Year After Year

Across every discipline, students revisit core science ideas with increasing depth. They move from observing familiar phenomena to investigating patterns, developing models, using evidence, and explaining complex systems.

PreK

LIFE SCIENCE



Living Things

4 lessons



Observing and Sorting Living Things

6 lessons



Home Sweet Home

5 lessons

PHYSICAL SCIENCE



Light and Shadows

4 lessons



Exploring Changes in Objects and Materials

4 lessons



Ready, Set, Move!

4 lessons

EARTH & SPACE SCIENCE



Sky Watchers

4 lessons



Weather

4 lessons

Life Science

Living Things

[View Unit Online](#)

Lesson 1



Living Things Grow

Phenomena & Learning Targets

What makes something a living thing?

- Identify a living thing.
- Describe a living thing as something that grows.

Lesson 2



Living Things Change

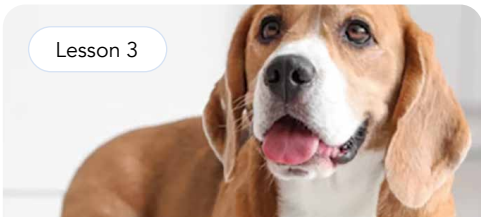
How do living things change as they grow?

- Identify that living things (including humans) change as they grow.

Performance Expectations

PK-LS1-1 Use observations to describe the difference between living and nonliving things and recognize that living things grow and change.

Lesson 3



Animals Have Needs

Phenomena & Learning Targets

What do animals need?

- Identify that animals need food, water, and shelter to grow.

Lesson 4



Plants Have Needs

What do plants need?

- Identify that plants need sunlight and water to grow.

Performance Expectations

PK-LS1-2 Observe patterns to identify what living things need to survive.

PK-LS1-2 Observe patterns to identify what living things need to survive.

Life Science

Observing and Sorting Living Things

[View Unit Online](#)

Lesson 1



Body Parts of Animals

Phenomena & Learning Targets

What do different animals look like?

- Identify external body parts of animals.
- Describe external body parts of animals.

Performance Expectations

PK-LS1-3 Identify and describe external body parts of animals and how they help them survive.

Lesson 2

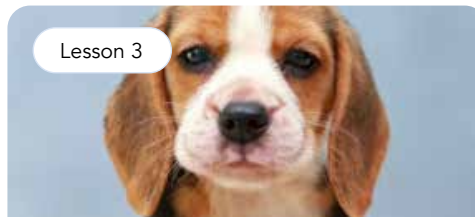


Animals on the Move

How do animals move?

- Identify and describe external body parts of animals that help them move.

Lesson 3



Animals' Ears

Phenomena & Learning Targets

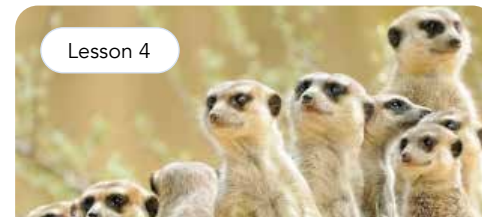
Why do animals have ears?

- Identify ears on different animals.
- Describe what ears do.

Performance Expectations

PK-LS1-3 Identify and describe external body parts of animals and how they help them survive.

Lesson 4



Grouping Animals

How can we group animals?

- Group animals based on their observable features.

Life Science

Home Sweet Home

[View Unit Online](#)

Lesson 5



Features of Plants

Phenomena & Learning Targets

What different parts of plants can we see?

- Identify and describe external features of plants (leaves, flowers, and stems).

Performance Expectations

PK-LS1-5 Identify and describe external parts of plants.

Lesson 6



Grouping Plants

Phenomena & Learning Targets

How can we group plants based on their parts?

- Group plants based on their observable features.

Performance Expectations

PK-LS1-4 Group animals and plants based on their observable features.

Lesson 1



Wetlands

How can animals live in the wetlands?

- Identify animals that live in the wetlands.
- Describe features of animals that help them survive in the wetlands habitat.

Lesson 2



Forest

How can animals live in the forest?

- Identify animals that live in the forest.
- Describe how animals use camouflage to protect themselves.

Lesson 3



Grassland

How can animals live in the grasslands?

- Identify nocturnal behavior and building underground burrows as two ways animals survive in the grasslands.
- Identify animals that live in grasslands.

Phenomena & Learning Targets

Performance Expectations

PK-LS1-6 Recognize that living things have different habitats suited to their unique needs.

Lesson 4



Desert

How can animals live in the desert?

- Identify ways animals stay cool in the desert.
- Describe how roadrunners survive in the heat of a desert habitat.

Lesson 5



Snowy Mountain Rainforest

How can animals live in different habitats?

- Identify the reasons a lynx is suited to a snowy mountain forest.
- Identify different habitats that animals live in.
- Explain that animals need the right food, water, and shelter.

Phenomena & Learning Targets

Performance Expectations

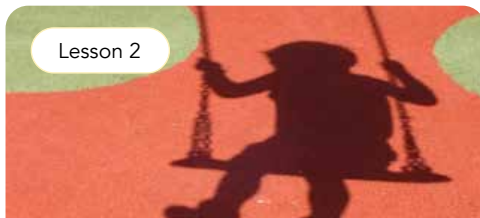
PK-LS1-6 Recognize that living things have different habitats suited to their unique needs.

Physical Science Light and Shadows

[View Unit Online](#)


Lesson 1

Finding Shadows



Lesson 2

Blocking Light

Phenomena & Learning Targets

Can we always see our shadow?

- Identify a shadow.
- Understand that we need light to see a shadow.

What makes a good shadow?

- Understand that a shadow is created when light is blocked.
- Identify objects that make a good shadow.

Performance Expectations

PK-PS4-1 Observe and describe changes in shadows by manipulating different objects.



Lesson 3

Matching Shadows



Lesson 4

Changing Shadows

Phenomena & Learning Targets

Are shadows always the same?

- Identify ways a shadow is similar to the object that makes it.

How might your shadow change without you moving?

- Understand how the position of a light source changes a shadow.
- Make and test predictions about how the position of a light source changes a shadow.

Performance Expectations

PK-PS4-1 Observe and describe changes in shadows by manipulating different objects.

PK-PS4-2 Make and test predictions about the behavior of shadows.

Physical Science Exploring Changes in Objects and Materials

[View Unit Online](#)


Lesson 1

Changing Shape



Lesson 2

Changing Size

Phenomena & Learning Targets

How can we make something change shape?

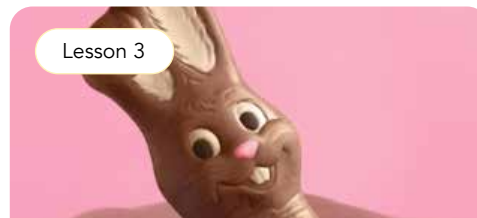
- Observe that an object remains the same even though its shape may change.

How can we make something change size?

- Recognize that a single object can be broken into smaller pieces while it remains the same material.

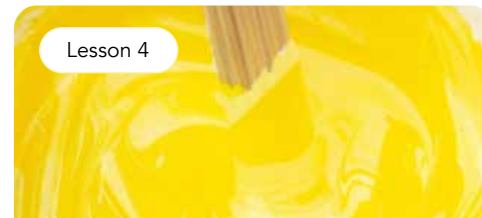
Performance Expectations

PK-PS1-1 Identify and describe changes in objects and materials using their senses.



Lesson 3

Hot and Cold



Lesson 4

Mix it Up

Phenomena & Learning Targets

How do things change when it warms up or gets cold?

- Describe how adding or removing heat changes how a material looks and feels.

What changes can we make by mixing?

- Observe that mixing substances combines them into a new-looking mixture.

Performance Expectations

PK-PS1-1 Identify and describe changes in objects and materials using their senses.

PK-PS1-2 Plan and conduct an investigation to compare changes in matter when combined with other substances.

Physical Science

Ready, Set, Move!

[View Unit Online](#)

Lesson 1



Movement and Stillness

Lesson 2



Pushing as a Force

Lesson 3



Pulling as a Force

Lesson 4



Pushing and Pulling in the Playground

Phenomena & Learning Targets

How can we tell if something is moving or still?

- Classify objects and living things as either moving or still based on observable characteristics.

What is a push?

- Identify pushing as a force.
- Demonstrate and compare the effect of applying different levels of force (gentle vs. strong) when pushing objects.

What is a pull?

- Identify pulling as a force.
- Demonstrate and compare the effect of applying different levels of force (gentle vs. strong) when pulling objects.

How do we use pushes and pulls when we play outside?

- Demonstrate their understanding of pushing and pulling in a playground environment.

Performance Expectations

PK-PS2-1 Observe and describe the effect of forces on different objects.

PK-PS2-2 Make and test predictions about how objects start and stop moving and can change direction during play.

Lesson 1

Sky Search

What can we see in the sky during the day?

- Find and name things in the sky during the day.

Phenomena & Learning Targets

Performance Expectations

PK-ESS1-1 Observe and describe natural objects in the sky.

Lesson 2

The Sun Makes Day and Night

How does the Sun help us know when our day starts and when it ends?

- Show how the sun appears to move in a pattern from morning to night.

PK-ESS1-2 Describe patterns of movement and apparent changes in the sun, moon, and stars to recognize predictable patterns.

Lesson 3

Twinkle Twinkle Little Star

What pictures can we find when we join the stars in the night sky?

- Observe that stars form fixed patterns in the sky and use their imagination to create "star pictures."

Phenomena & Learning Targets

Performance Expectations

PK-ESS1-2 Describe patterns of movement and apparent changes in the sun, moon, and stars to recognize predictable patterns.

Lesson 4

Moon Shapes

How does the moon's shape appear to change in a pattern?

- Identify that the moon's lit-up shape appears to change over time into different recognizable shapes.

Lesson 1

Talking About the Weather

What is the weather like now?

- Identify types of weather.
- Use their senses to describe what the weather is like today.

Phenomena & Learning Targets

Performance Expectations

PK-ESS2-1 Observe and describe changes in the weather.

Lesson 2

Picture the Weather

How can we show the weather with a picture?

- Choose a picture that shows today's weather.

PK-ESS2-3 Collect and record data on weather patterns to recognize how local weather changes daily.

Lesson 3

Weather Wear

What should we wear today?

- Identify appropriate clothes to wear for the weather outside.

Phenomena & Learning Targets

Performance Expectations

PK-ESS2-2 Identify examples of the effects of changes in weather and season on their own lives.

Lesson 4

Animals and Plants
Changing with the Weather

What happens to plants and animals in different types of weather?

- Identify what happens to plants and animals in different types of weather.



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inquisitive

Our commitment is simple: universal access for all students, with thoughtfully designed lessons that save teachers time.

Inquisitive is a complete, phenomena-based PreK–5 science curriculum, aligned to the NGSS and state standards.

It's designed to delight and engage students while supporting all learners with 50+ languages in digital, print, and text-to-speech formats.

Teachers save time with open-and-go lessons, built-in guidance, rich stimuli, hands-on and virtual investigations, and auto-graded assessments.

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