


# Grade 5



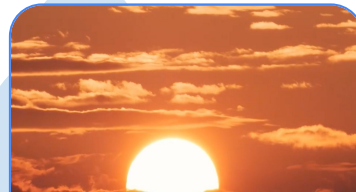
CTN partnered with Discovery Education to create this resource of educational materials aligned with Next Generation Standards. This curriculum alignment provides resources for educators to use in lesson plans, guided groups, and classroom activities.

## Curriculum Resources Science



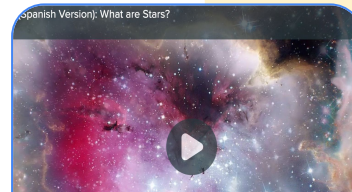
A cartoon illustration of a man in a green suit holding a camera, standing in front of a city skyline. A thought bubble above him shows a newspaper with the word 'HEALTHY' and a picture of a person.

**Unit 1**  
Stars And  
The Solar System




A photograph of a bright sun setting or rising over a horizon, with orange and yellow clouds in the sky.

**Unit 2**  
Physical And Chemical  
Changes



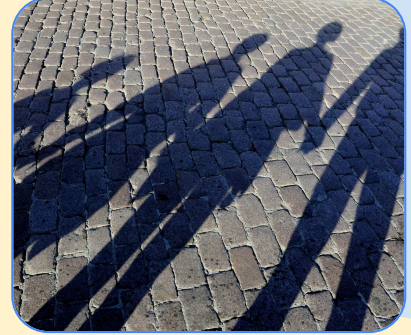
A photograph of a colorful nebula in space, with a play button icon in the center. The text 'Spanish Version: What are Stars?' is visible in the top left corner.

**Unit 3**  
Earth  
Systems Science



A photograph of a bright sun in a clear blue sky, with a dark silhouette of a landscape in the foreground.

**Unit 4**  
Matter And Energy  
In Ecosystems



### Standard: 5-ESS1-1

Support an argument that differences in the apparent brightness of the Sun compared to other stars is due to their relative distances from Earth.



#### Video

- [DEmystified: What are Stars?](#)
- [DEmystified: What are Stars \(Spanish Version\)](#)
- [Our Star the Sun](#)
- [Stars](#)
- [Stars \(Spanish Version\)](#)
- [Distances in Spaces](#)



#### Ready to Use

- [Stars: 3-2-1 Pyramid Student Activity](#)



#### Reading Passage

- [What's In Space?](#)
- [The Amazing Hubble Telescope](#)

**Standard: 5-ESS1-1**

Support an argument that differences in the apparent brightness of the Sun compared to other stars is due to their relative distances from Earth.

**Image**

- [Setting Sun Over Ocean](#)
- [A Man Watches the Stars](#)

**SOS**

- [Spotlight on Strategies: Journals](#)
- [Spotlight on Strategies: Talking Sticks](#)

**Graphic Organizer**

- [Graphic Organizer: Cause and Effect](#)

**Standard: 5-ESS1-2**

Represent data in graphical displays to reveal patterns of daily changes in length and direction of shadows, day and night, and the seasonal appearance of some stars in the night sky.

**Video**

- [Real World Phenomena Jr.: Observing Shadows](#)
- [Real World Phenomena Jr.: Observing Shadows \(Spanish Version\)](#)
- [Demystified: Earth and Sun](#)
- [DEmystified: Day and Night](#)
- [Make Your Own Constellation](#)

**Standard: 5-ESS1-2**

Represent data in graphical displays to reveal patterns of daily changes in length and direction of shadows, day and night, and the seasonal appearance of some stars in the night sky.

**Activity**

- [STEM Day: In the Shadows](#)

**Skill Builder**

- [Rotate or Revolve](#)

**Animation**

- [Sundial](#)

**SOS**

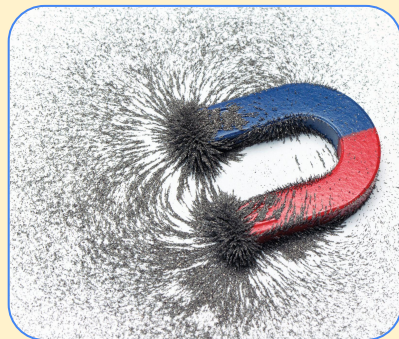
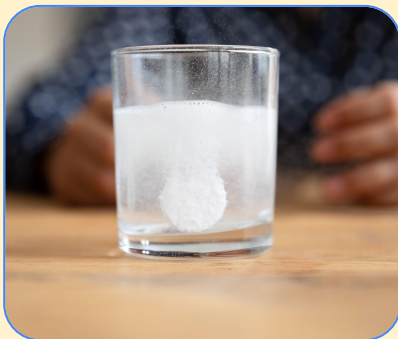
- [Spotlight on Strategies: Sketchnotes](#)

**Image**

- [Sundial](#)

**Ready to Use**

- [The Clocks from the Fixies: Activity 3](#)
- [Earth's Rotation Around the Sun: Flip Flop Student Activity \(01:03-end\)](#)
- [Day, Night, and Seasons: 3-2-1 Student Activity](#)

**Standard: 5-PS1-1**

Develop a model to describe that matter is made of particles too small to be seen.

**Activity**

- You Be the Chemist: Hold the Salt
- You Be the Chemist: Hold the Salt Student Worksheet

**Video**

- Real World Phenomena Jr.: Mixing Lemonade
- Real World Phenomena Jr.: Mixing Lemonade (Spanish Version)
- Mixtures and Solutions
- Mixtures and Solutions (Spanish Version)
- 3M Science at Home: Inflation Station
- 3M Science at Home: Inflation Station (Spanish Version)
- 3M Science at Home: CO<sub>2</sub> Balloon

**Standard: 5-PS1-1**

Develop a model to describe that matter is made of particles too small to be seen.

**Video**

- [Bicycle Pumps](#)
- [Amazing Science: Volume 1: Simple Lava Lamp](#)
- [Explaining the Makeshift Lava Lamp](#)
- [Science Kids: Chemistry: Mixtures, Solutions, Evaporation, Distillation, Chromatography](#)
- [Ocean Characteristics: Seeing Salt Water](#)
- [Reuters News: 2018-08-08: Water-Soluble Bags Could Replace Traditional Plastic Bags](#)

**Ready to Use**

- [Background Builder: Solutions \(3-5\)](#)

**Image**

- [Close up of Nurse Drawing Syringe](#)
- [A dry Lake, in the Mojave Desert.](#)

**SOS**

- [Eye Spy for Students](#)

**Standard: 5-PS1-2**

Measure and graph quantities to provide evidence that regardless of the type of change that occurs when heating, cooling, or mixing substances the total amount of matter is conserved.

**Video**

- Lenzi's Scientific Explanations: Changes in State
- What is the Conservation of Matter?
- What is the Conservation of Matter? (Spanish Version)
- Demonstration: Conservation of Mass Using Salt and Water (Teacher Background Only)
- Discovery Science Alliance: Simple Machines: Levers (Intervention)
- Changing States of Matter
- Measuring Liquid Volume

**Activity**

- Representing Data Graphically

**Fundamental**

- What's the Matter? Changing States

**Ready to Use**

- Background Builder: Mixtures (3-5)
- Separating Solutions: Connecting the Dots Student Activity

**Standard: 5-PS1-3**

Make observations and measurements to identify materials based on their properties.

**Video**

- Properties of Minerals
- Hands-On Activities: Magnets

**Image**

- Granulated Sugar and Sugar Cubes
- Flour
- A *salt* mine at Swakopmund, Namibia

**Skill Builder**

- Properties of Matter: What's the Mass?

**Activity**

- You Be the Chemist: Melting Ice with Salt Student Worksheet
- You Be the Chemist: Properties of Matter: Solubility Teacher Activity Guide (includes both on grade level and enrichment)
- You Be the Chemist: Magnetic Metals Student Worksheet
- You Be the Chemist: Solid or Liquid



**Standard: 5-PS1-3**

Make observations and measurements to identify materials based on their properties.

**Virtual Lab**

- [Too Hot to Handle](#)
- [Too Hot to Handle \(Spanish Version\)](#)

**Exploration**

- [Defining Properties \(Intervention\)](#)

**Graphic Organizer**

- [Get Venn-y With It: Graphic Organizer](#)

**Song**

- [Music Video: It's a Property \(Intervention\)](#)

**Standard: 5-PS1-4**

Conduct an investigation to determine whether the mixing of two or more substances results in new substances.

**Video**

- [DEmystified: Types of Mixtures](#)
- [DEmystified: Types of Mixtures \(Spanish Version\)](#)
- [Antacid Mini-Rockets](#)
- [Antacid Mini-Rockets \(Spanish Version\)](#)

**Standard: 5-PS1-4**

Conduct an investigation to determine whether the mixing of two or more substances results in new substances.

**Exploration**

- [Chemical Changes](#)
- [Chemical Changes \(Spanish Version\)](#)

**Graphic Organizer**

- [Graphic Organizer: Cause and Effect](#)

**Activity**

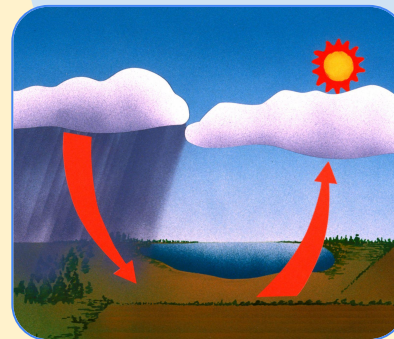
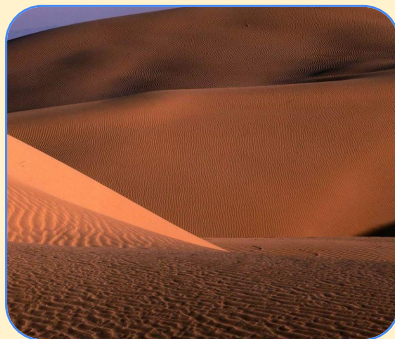
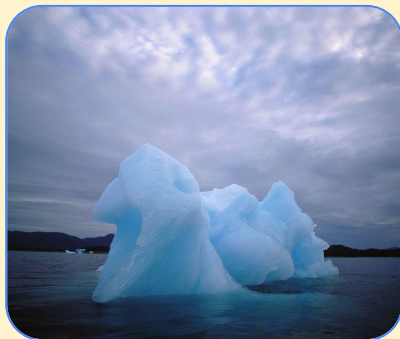
- [You Be the Chemist: Goofy Putty Student Worksheet](#)
- [You Be the Chemist: Lumpy Liquids](#)
- [You Be the Chemist: Lumpy Liquids Student Worksheet](#)

**Song**

- [Music Video: Mixtures](#)

**SOS**

- [Spotlight on Strategies: Shake It Up](#)

**Standard: 5-PS1-1**

Develop a model to describe that matter is made of particles too small to be seen.

**Activity**

- You Be the Chemist: Hold the Salt
- You Be the Chemist: Hold the Salt Student Worksheet

**Video**

- Real World Phenomena Jr.: Mixing Lemonade
- Real World Phenomena Jr.: Mixing Lemonade (Spanish Version)
- Mixtures and Solutions
- Mixtures and Solutions (Spanish Version)
- 3M Science at Home: Inflation Station
- 3M Science at Home: Inflation Station (Spanish Version)

**Standard: 5-PS1-1**

Develop a model to describe that matter is made of particles too small to be seen.

**Video**

- 3M Science at Home: CO<sub>2</sub> Balloon
- Science Kids: Chemistry: Mixtures, Solutions, Evaporation, Distillation, Chromatography
- Ocean Characteristics: Seeing Salt Water
- Reuters News: 2018-08-08: Water-Soluble Bags Could Replace Traditional Plastic Bags

**Ready to Use**

- Background Builder: Solutions (3-5)

**SOS**

- Eye Spy for Students

**Standard: 5-PS2-1**

Support an argument that the gravitational force exerted by Earth on objects is directed down.

**Video**

- Gravity
- Zero Gravity Airplane
- What is Gravity?

**Standard: 5-PS2-1**

Support an argument that the gravitational force exerted by Earth on objects is directed down.

**Activity**

- STEM Day: Hand Time
- STEM Day: Bounce

**Graphic Organizer**

- Graphic Organizer: Inferring with Images

**Image**

- Wide Shot of Boy Preparing to Knock Down Blocks
- Wide Shot of Boy Knocking Down Blocks
- Wide Shot of Kids Going Down Slide
- Close up of Girl Dropping Down
- Close up of Monkey Bars after Girl Dropped

**Ready to Use**

- Background Builder: Gravity (3-5)
- Seeing Gravity: Silence is Golden Student Activity
- Gravity on Earth: Read All About It Student Activity
- Gravity: Poetry Slam Student Activity

**Reading Passage**

- What is Gravity?

**Standard: 5-ESS2-1.**

Develop a model using an example to describe ways the geosphere, biosphere, hydrosphere, and/or atmosphere interact.

**Video**

- The Ocean and the Climate
- DEmystified: Climate
- How to Make Modeling Clay
- DEmystified: What Are Landforms?

**Image**

- Wind blows on sand dune
- Swirled pattern in sand
- Evaporation of Water from Earth's Surface

**Interactive**

- Water Cycle
- Water Cycle (Spanish Version)
- Forces That Shape the Earth
- Forces That Shape the Earth (Spanish Version)

**Activity**

- STEM Day: What's in a System?
- WWF Wild Classroom: Freshwater Dolphins - Nature's Sponges
- STEM Day: Going with the Flow

**Standard: 5-ESS2-1.**

Develop a model using an example to describe ways the geosphere, biosphere, hydrosphere, and/or atmosphere interact.

**Ready to Use**

- [Wetlands: Read All About It Student Activity](#)
- [Effects of Climate Change 3-2-1 Pyramid Student Activity](#)
- [Landforms: Background Builder \(3-5\)](#)
- [Factors that Affect Climate: Poetry Slam Student Activity](#)

**Virtual Lab**

- [Erosion - Here Today, Gone Tomorrow](#)

**SOS**

- [Spotlight on Strategies: Sketchnotes](#)

**Standard: 5-ESS2-2.**

Describe and graph the amounts of salt water and fresh water in various reservoirs to provide evidence about the distribution of water on Earth.

**Video**

- [DEmystified: Fresh Water \(01:00\)](#)
- [Our Blue Planet](#)

**Standard: 5-ESS2-2.**

Describe and graph the amounts of salt water and fresh water in various reservoirs to provide evidence about the distribution of water on Earth.

**Video**

- Data and Graphs
- Water Smart: Water on Earth (03:24)
- Earth's Fresh Water Supply (0:59)

**SOS**

- Spotlight on Strategies: Journals
- Spotlight on Strategies: Sketchnotes

**Ready to Use**

- Salt Water vs Fresh Water: Six Word Student Activity
- World of Water: Six Word Student Activity
- Lakes: Six Word Student Activity
- Glaciers: Poetry Slam Student Activity
- Rivers: Poetry Slam Student Activity
- Oceans: Poetry Slam Student Activity
- Water Conservation: AEIOU Student Activity

**Images**

- Icebergs and Glacier



**Standard: 5-ESS3-1.**

Obtain and combine information about ways individual communities use science ideas to protect Earth's resources and environment.

**Video**

- [Water Smart: Water as a Natural Resource](#)
- [Wastewater Recycling: Putting Grey Water to Good Use](#)
- [STEM Careers: Stormwater Engineer](#)
- [Wastewater](#)
- [Newsy: How City Design Can Cool Down Your Neighborhood](#)
- [Kinnickinnic River Restoration: Habitat and Flood Management](#)

**Virtual Lab**

- [Pond-er This](#)
- [Pond-er This \(Spanish Version\)](#)
- [How Big is Your Footprint?](#)
- [How Big is Your Footprint! \(Spanish Version\)](#)

**Ready to Use**

- [Water Conservation: AEIOU Student Activity](#)
- [Clean Water for All: AEIOU Student Activity](#)
- [Ocean Restoration: Student Investigation](#)

**Standard: 5-ESS3-1.**

Obtain and combine information about ways individual communities use science ideas to protect Earth's resources and environment.

**Activity**

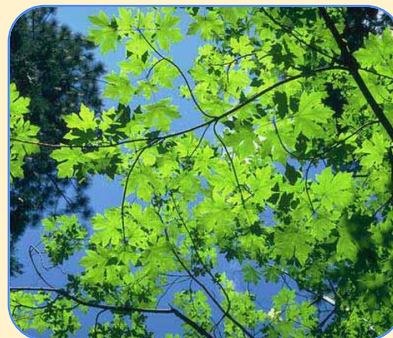
- [WWF Wild Classroom: Freshwater Dolphins - Nature's Sponges](#)
- [Clean Water Anywhere | Classroom Activity](#)

**SOS**

- [Spotlight on Strategies: Talking Sticks](#)
- [Spotlight on Strategies: Take a Walk](#)
- [Spotlight on Strategies: Puppet Pictures](#)

**Image**

- [Fish\(2\)](#)

**Standard: 5-PS1-1**

Develop a model to describe that matter is made of particles too small to be seen.

**Activity**

- You Be the Chemist: Hold the Salt
- You Be the Chemist: Hold the Salt Student Worksheet

**Video**

- Real World Phenomena Jr.: Mixing Lemonade
- Real World Phenomena Jr.: Mixing Lemonade (Spanish Version)
- Mixtures and Solutions
- Mixtures and Solutions (Spanish Version)
- 3M Science at Home: Inflation Station

**Standard: 5-PS1-1**

Develop a model to describe that matter is made of particles too small to be seen.

**Video**

- 3M Science at Home: Inflation Station (Spanish Version)
- 3M Science at Home: CO<sub>2</sub> Balloon
- Science Kids: Chemistry: Mixtures, Solutions, Evaporation, Distillation, Chromatography
- Ocean Characteristics: Seeing Salt Water
- Reuters News: 2018-08-08: Water-Soluble Bags Could Replace Traditional Plastic Bags

**Ready to Use**

- Background Builder: Solutions (3-5)

**Image**

- Close up of Nurse Drawing Syringe
- A dry Lake, in the Mojave Desert.

**SOS**

- Eye Spy for Students

**Standard: 5-PS3-1**

Use models to describe that energy in animals' food (used for body repair, growth, motion, and to maintain body warmth) was once energy from the Sun.

**Video**

- DEmystified: Photosynthesis
- DEmystified (Spanish Version): Photosynthesis
- Food Chains and Food Webs
- Plants and Photosynthesis
- Sunlight

**Activity**

- Photosynthesis

**Interactive**

- Ordering Food Chains

**SOS**

- Spotlight on Strategies: Sketchnotes
- Z Chart: Graphic Organizer

**Image**

- Sun Energy\*
- Fern Fronds\*
- Dinosaur, Stegosaurus; grazing\*
- Dinosaur, Tyrannosaurus Rex\*

\*Students organize images into a diagram or flow chart.

**Standard: 5-PS3-1**

Use models to describe that energy in animals' food (used for body repair, growth, motion, and to maintain body warmth) was once energy from the Sun.

**Image**

- Photosynthesis
- Chlorophyll, Definition

**Ready to Use**

- Links in a Food Chain: Poetry Slam Student Activity
- Producers and Photosynthesis: Read All About It Student Activity

\*Students organize images into a diagram or flow chart.

**Standard: 5-LS1-1**

Support an argument that plants get the materials they need for growth chiefly from air and water.

**Video**

- Demystified: What Plants Need
- Let's Dig Into Plants
- Reuters News: 2019-01-03: Hydroponic Farming to Address Saudi's Water Shortage Problems

**Standard: 5-LS1-1**

Support an argument that plants get the materials they need for growth chiefly from air and water.

**Image**

- Photosynthesis
- Irrigation Canal
- A Farmer Irrigating Plants in West Africa
- Irrigation Sprinklers
- Cotton Field in Arizona
- Students in Caceres Showing Their Rain Water Irrigated School Garden, Built as Part of a Water Conservation Project

**Graphic Organizer**

- Graphic Organizer: Inferring with Images

**Interactive**

- 
- Being Alive
- 

**Activity**

- STEM Day: I Don't Need You Soil
- Soilless Farming | Classroom Activity

**Ready to Use**

- Basic Needs of Plants: Whittle It Down Student Activity
- Stems/Trunk: Read All About It Student Activity

**Standard: 5-LS1-1**

Support an argument that plants get the materials they need for growth chiefly from air and water.

**SOS**

- [Spotlight on Strategies: Talking Sticks](#)
- [Spotlight on Strategies: Six Word Story](#)

**Standard: 5-LS2-1**

Develop a model to describe the movement of matter among plants (producers), animals (consumers), decomposers, and the environment.

**Video**

- [Real World Phenomena Jr.: Composting Waste](#)
- [Demystified: Food Webs](#)
- [Composting: From Garbage to Gardens](#)
- [Tree Growth and Nutrients](#)

**Activity**

- [The Marine Food Web](#)

**Skill Builder**

- [Make a Food Chain](#)

**SOS**

- [Spotlight on Strategies: Sketchnotes](#)



**Standard: 5-LS2-1**

Develop a model to describe the movement of matter among plants (producers), animals (consumers), decomposers, and the environment.

**Ready to Use**

- [Decomposers in a Food Chain: Six Word Story](#)
- [Compost Feeds Trees 3-2-1 Pyramid Student Activity](#)
- [Producers, Consumers, and Decomposers](#)

**Images**

- [Saprophyte](#)
- [Forest Food Web](#)
- [Coral Reef Food Web](#)



**Video**



**Activity**



**Exploration**



**Interactive**



**Reading  
Passage**



**Ready  
to Use**



**Slide  
Show**



**Audio**



**Model  
Lesson**



**Board**



**Presentation**



**Collaborative  
Project**



**Skill  
Builder**



**Graphic  
Organizer**



**Image**



**Virtual  
Lab**



**SOS**



**FUN-  
damental**



**animation**