




SUMMIT K12

# 2024

## K-2<sup>ND</sup> DYNAMIC SCIENCE

Empowering ALL Texas Learners to Reach their Summit

**Built By Texas Educators  
For Texas Educators**



Texas based publisher with curricula  
created by over 75 current and former  
Texas educators

**Built for Texas  
TEKS-SEPs-RTCs-ELPS**

**Ready to  
Learn More?**

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**SBOE Approved!**

K-8 English, K-6 Spanish  
Biology, Chemistry, Physics, IPC  
100% TEKS/100% ELPS

# Concise and Complete Teacher Supports

Instructional Resources
Video Resources
Supplemental Resources
Course Information

**Teacher Resources**  
Dynamic Science - 2<sup>nd</sup>

- Cat 1: Matter and Its Properties
  - 2.6A: Properties of Matter
    - Pacing Guide
    - Lesson Guide**
    - Assessments
    - Vocabulary Mastery
    - Study Guide
    - Study Guide Key
    - Interactive E-Poster
  - 1.6A: Classify by Physical Properties
  - 2.6B: Physical Changes of Matter
  - 1.6B: Predicting Changes in Materials
  - 2.6C: Combining to Build
  - 1.6C: Parts Make a System
- Cat 2: Force, Motion and Energy
- Cat 3: Earth and Space
- Cat 4: Organisms and Environments

Lesson Guide

TEKS 2.6A

2.6A Learning Activities

**SummitK12 Suggested Activities** \*additional time needed

ENGAGE		
	Exploring the Investigative Phenomenon: Peanut Butter	30 minutes
	Establish Relevance: How Is This Similar?	15 minutes
INVESTIGATE AND LEARN		
	Investigation: Lumpy, Bumpy, Scratchy, Smooth	45 minutes
	Investigation: Bend, Twist, and Stretch	45 minutes
	Investigation: Hot or Cold?	45 minutes
	Investigation: Solid or Liquid?	45 minutes*
APPLY AND EXTEND		
	Activity: Odd One Out	30 minutes
	Writing: What is the Matter?	30 minutes
	Literacy Connection: All About Chemists	30 minutes
	Activity: How Is Matter Used?	30 minutes
	Study Guide: Properties of Matter	30 minutes
PHENOMENON		
	Explaining the Investigative Phenomenon	30 minutes
	Connecting to the Anchoring Phenomenon	30 minutes
PERFORMANCE TASK		
	Performance Task: Classifying Matter	30 minutes
EVALUATE		
	Concept Mastery Assessment	30 minutes

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Properties of Matter

ENGAGE

## INSTRUCTIONAL RESOURCES

Pacing Guides  
Lesson Guides  
Assessments  
TEKS Lessons/E-Books  
Vocabulary Mastery  
Study Guides/Keys  
Interactive E-Posters

## VIDEO RESOURCES

Phenomena  
Texas Virtual Field Investigations  
Kate the Chemist Labs

## SUPPLEMENTAL RESOURCES

SEPs Background/Vocabulary  
Graphic Organizers

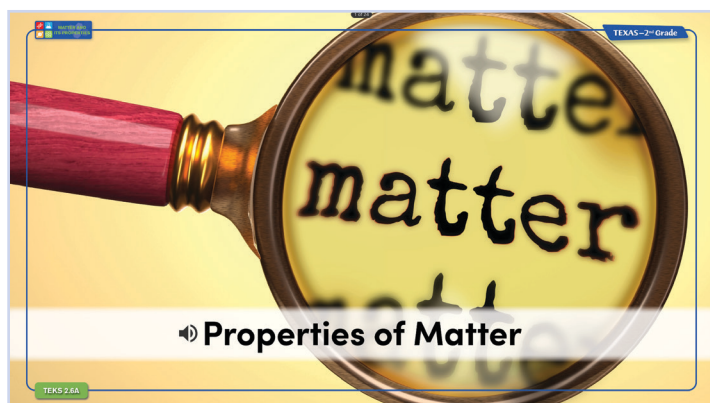
## COURSE INFORMATION

Pacing Guide  
5E Model  
Phenomena  
Science Lab Explorations  
TEKS-SEPs-RTCs Crosswalk

## TEACHER SUPPORTS INCLUDE:

- Lesson and Lab Guides
- Scope and Sequence
- Pacing Guides
- Reports and Dashboards
- Anchoring Phenomena Table
- 3D Teaching and Learning
- Image Bank
- Science E-Books
- Formative Assessments
- Year-Round Responsive Support
- Asynchronous Online Teacher Training
- Zoom and Onsite Professional Development

## SCIENCE E-BOOKS

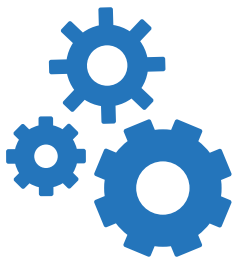


A screenshot of an e-book page titled 'States of Matter'. The text explains that matter can be classified by its state and lists three states: solid, liquid, and gas. Below the text are three images: the Statue of Liberty (solid), tea being poured (liquid), and balloons (gas). Each image is accompanied by a speaker icon and a caption: 'The Statue of Liberty is a solid.', 'Tea is a liquid.', and 'The air in the balloons is a gas.' The page includes a 'TEKS 2.6A' label in the bottom left corner and a 'TEXAS-2nd Grade' label in the top right corner.

Engaging informational texts for students to learn science through reading.

# Teaching Science through Phenomena using the 3D Model

## Science TEKS Content Standards



## Scientific and Engineering Practices

## Recurring Themes and Concepts



### TEKS-SEPs-RTCs Crosswalk (2nd Grade Example)

Grade	Category	SEPs TEKS	2nd Grade Dynamic Science TEKS Lessons, Labs, Investigations, and Explore Activities																		Totals by SEPs				
			2.6A	2.6B	2.6C	2.7A	2.7B	2.8A	2.8B	2.8C	2.9A	2.9B	2.10A	2.10B	2.10C	2.11A	2.11B	2.12A	2.12B	2.12C		2.13A	2.13B	2.13C	2.13D
2	Scientific and engineering practices	2.1A	X	SL	X	SL	SL	SL	X	SL	X	X	SL	X	Lab	SL	Lab	SL	SL	SL	SL	SL	SL	SL	22
2	Scientific and engineering practices	2.1B	X	X	X	X	Lab	X	X	X	X	X	X	X	Lab	SL	Lab								9
2	Scientific and engineering practices	2.1C	X	X	X	X	X	X	X	X	X	X	Lab	X	X	X	X	X	X	X	Lab	X	X	X	21
2	Scientific and engineering practices	2.1D	Lab	X	X	X					X		Lab								Lab	X		Lab	8
2	Scientific and engineering practices	2.1E	Lab	X			X			X	X		Lab										X	Lab	8
2	Scientific and engineering practices	2.1F		X		X	X	X	X	X	X		Lab		X	X				X	X	X	X	Lab	13
2	Scientific and engineering practices	2.1G		X	X	X			X	X		X	Lab	X					Lab						8
2	Scientific and engineering practices	2.2A		X		X			X	Lab															4
2	Scientific and engineering practices	2.2B	X	Lab				Lab	Lab		Lab	Lab	Lab	X	Lab	Lab	X	X			Lab	Lab		Lab	15
2	Scientific and engineering practices	2.2C		X		X							X												3
2	Scientific and engineering practices	2.2D			Lab		X			Lab			X												4
2	Scientific and engineering practices	2.3A	Lab	X		X	X	X	X		X					X			X				X	X	11
2	Scientific and engineering practices	2.3B		X			X	X					X	X			X		Lab	X	Lab	Lab	X		11
2	Scientific and engineering practices	2.3C	X	Lab		Lab	Lab		X	X		X	Lab	X	X	Lab		Lab	Lab		X	X	X		16
2	Scientific and engineering practices	2.4A			Lab		X			X				X		X									5
2	Scientific and engineering practices	2.4B							Lab			X	X												3
2	Recurring themes and concepts	2.5A	SL	SL			SL	SL	SL	SL	Lab	X	SL	X	X			SL	SL	SL	SL	SL	SL	X	18
2	Recurring themes and concepts	2.5B		Lab		X	Lab	Lab	Lab		X	X	X	Lab	X	Lab	X	X	X	X			X	X	17
2	Recurring themes and concepts	2.5C	Lab	X	X	X						X	X						Lab		Lab		X	X	9
2	Recurring themes and concepts	2.5D							Lab		Lab	X							Lab		Lab			Lab	6
2	Recurring themes and concepts	2.5E	X	X	X			X	X									X	X						7
2	Recurring themes and concepts	2.5F			Lab		X								Lab	X	X	Lab	Lab	Lab	Lab	Lab	Lab	Lab	11
2	Recurring themes and concepts	2.5G		Lab		Lab		X					Lab	Lab			X	X	Lab		X	X	X	X	12
<b>Totals by Content TEKS</b>			9	15	12	10	11	13	10	12	9	11	11	16	9	8	10	9	8	12	11	8	12	15	<b>241</b>

**KEY**

Lab	Lab Investigations
X	Inquiry or Explore Activity
SL	Science Literacy Process Skill or RTC

# Kate the Chemist K-2nd Video Series



Summit K12 has teamed up with UT Austin Professor and best-selling children's author, Dr. Kate Biberdorf, to create Phenomena-based videos specifically for the 2024 Science TEKS.



# K-2nd Texas Virtual Field Investigations

ALL K-2nd students will have the opportunity to investigate phenomena throughout dozens of the most popular state parks and engineering marvels in Texas.

The 2024 TEKS Virtual Field Investigations series was created specifically for the Texas Science Adoption.



# Hands on Investigations and Explorations

Investigations that support students figuring out concepts through phenomena.



## Lab Explorations – 1<sup>st</sup> Grade

TEKS	Name of Lab
1.6A	Mystery Bag
1.6B	Testing the Waters
1.6C	My Robot
1.7A	Cotton ball Race
1.7B	“Roll, Roll, Roll.”
1.8A	Heat Race
1.8B	Is It Reversible
1.9A	Trees Changing
1.10A	Properties of Soil
1.10B	Moving to a New Place
1.10C	Size, Color, and Clarity
1.10D	What’s the Weather
1.11A	Building With Rocks and Soil
1.11B	Rain, Rain, Come Again
1.11C	Pollution Solution
1.12A	Living or Not
1.12B	Interactions in My Aquarium
1.12C	Line it Up
1.13A	It’s My Body
1.13B	Life Cycles, Oh My!
1.13C	Oh, Baby!


Lab Instructions and details are included in the Lesson Guides for each TEKS.



# E-Poster and Interactive Study Guide


TEXAS—2<sup>nd</sup> Grade

## Physical Characteristics of the Environment




\_\_\_\_\_ need

Water  
Sunlight  
Space  
Soil  
Air




\_\_\_\_\_ need


Water  
Sunlight  
Space  
Plants  
Air



\_\_\_\_\_



\_\_\_\_\_



\_\_\_\_\_

physical characteristics   
  environment   
  support   
  animals   
  ecosystem   
  rainfall   
  food source   
  plants

IN  
ENGLISH  
AND  
SPANISH

### Core Vocabulary

Select the correct Core Vocabulary from the drop-down menu to complete the sentence.

1.  helps some animals hide when hunting for food and protects other animals from being hunted.



2. Feathers, skin, and fur are  that can help an animal camouflage and not be seen by predators.

3.  is an animal behavior where animals travel to new places in search of food.

- migration
- hibernate
- body coverings
- camouflage
- movements



4. Animals use many different  , like running, jumping, and flying to help them get the food they need or help them escape from predators.

5. Some animals, such as hedgehogs and squirrels, cannot find enough food during the winter season so they  or sleep all winter.

# Science Literacy

Seamlessly Blend the 2024 Science TEKS, SEPs, RLA TEKS, and ELPS.

5 of 24

TEXAS—2<sup>nd</sup> Grade

## Body Coverings

Body coverings protect animals in their environments.



Shells protect an animal's body from an attack and the weather. Think about your house. What's on top of your house? A roof protects your house, just as a shell protects animals from their environment. Armadillos have hard shells made of bony plates. Did you know some armadillos can roll into a ball to avoid an attack?



Birds have feathers to help them fly, control their body temperature, and keep them warm and dry. Feathers close to the body fluff, creating a layer of warmth. Feathers are also waterproof, keeping birds dry.

TEKS 2.13B

IN  
ENGLISH  
AND  
SPANISH

Over 60  
Interactive  
Science  
E-books  
in K-2nd

## Hibernate

Hibernation is a long period of inactivity when animals go into a deep sleep-like state. Groundhogs, some bats, and squirrels hibernate during winter months when food is scarce. Before hibernation animals gain weight to store enough energy to last through the winter. During hibernation, their bodies conserve energy by slowing down.



TEKS 2.13B



# Vocabulary Mastery

TEKS Content Vocabulary | Science Tools Vocabulary |  
SEPs & RTCs Vocabulary | Science Cognates



A woodpecker's  Select  
feathers  
beak  
feet is strong enough to break a tree's bark.



beaks

pico

noun

Finish Attempt



Beaks are the nose and mouth of a bird and are used mainly for eating.

IN  
ENGLISH  
AND  
SPANISH



A hornet queen  Select  
hibernates  
plays  
lives in a tree trunk.



hibernate

hibernar

verb

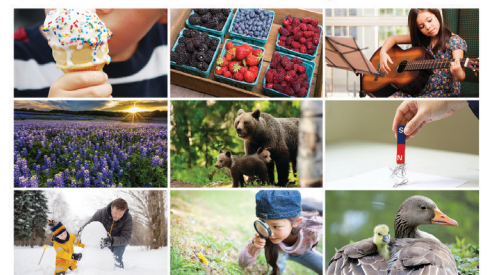


Hibernate is a way that some animals deal with the harshness of winter.

## Image Bank

- 250-750 images per grade level/subject
- Minimum 6-10 images per content TEKS
- Images for all SEPs Vocabulary Words
- Images for all Science Tools Vocabulary

### Summit K12 Image Bank



# Comprehensive Professional Development

## Professional Development for ALL Stakeholders

Science Coordinators

Science Teachers

Principals & Superintendents

Parents/Guardians

Instructional Coaches

### SCIENCE COORDINATOR IMPLEMENTATION PD

INITIAL TEACHER TRAINING

TEKS CHANGES BY GRADE LEVEL

TEACHING WITH PHENOMENA

### DELIVERY MODELS

- Asynchronous, Zoom, and On-site

DIFFERENTIATION/ACCELERATION

SCIENCE-LITERACY/VOCABULARY

3D TEACHING & LEARNING

"Every student in Texas will be deeply involved in the doing of science and sensemaking."

"We need to prepare teachers to teach science in a different way, but we also need to help principals understand that [the new 3D] science classrooms are going to look and sound different than [current classrooms]."



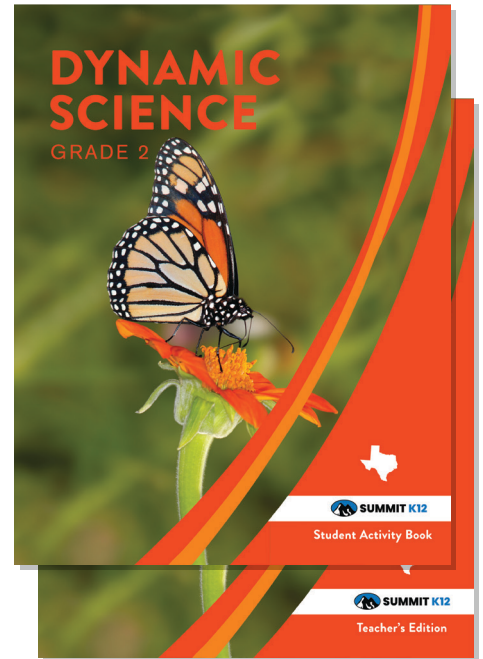
**DR. LINDA COOK**

Dr Linda Cook's experiences include Extensive Professional Development Work and presentations related to the Framework for K-12 Science Education; Ready, Set, Science.

- Summit K12 Professional Development Strategy and Implementation Planning
- NSELA Professional Development Committee 2023-2026
- NSELA President-Elect, President, and Past President 2020-2023
- President of the Metroplex Area Science Supervisors (2009-2010)
- Director of K-12 Science, Coppell ISD, 15 years
- PhD Curriculum and Instruction focused on Global Science Education

**EASY • EFFICIENT • EFFECTIVE**

# Printed 3D Student Activity Books and Teacher's Editions



Student and Teacher Editions designed for **doing** science.

## Convenient, Pre-packaged Classroom Lab Kits



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In partnership with  
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# 2024

## DYNAMIC SCIENCE

### State Adoption Pricing

K-8th Grade English/Spanish, Biology, Chemistry, Physics, IPC


# \$6.95 PER STUDENT/YEAR\*

\*8-year Online Package with Print Teacher's Edition

 = **Best Value** (up to 50% off)


### DYNAMIC SCIENCE ONLINE PACKAGES

COMPREHENSIVE 100% TEKS/ELPS STATE APPROVED

PACKAGE	TOTAL PRICE	PRICE PER YEAR
Online 1-Year	\$10.95	\$10.95
Online 2-Year	\$19.90	\$9.95
Online 4-Year	\$31.80	\$7.95
 <b>Online 8-Year</b>	<b>\$55.60</b>	<b>\$6.95</b>

### DYNAMIC SCIENCE ONLINE + PRINT PACKAGES

COMPREHENSIVE 100% TEKS/ELPS STATE APPROVED + PRINT TE

PACKAGE	TOTAL PRICE	PRICE PER YEAR
Online 1-Year + Print TE	\$13.95	\$13.95
Online 2-Year + Print TE	\$23.90	\$11.95
Online 4-Year + Print TE	\$35.80	\$8.95
 <b>Online 8-Year + Print TE</b>	<b>\$55.60</b>	<b>\$6.95</b>

3D Student Consumable Print K-12 (from 1-8 Years, up to 25% off)

Science Lab Investigation Kits (starting at \$1,345 per classroom)