



# SCHOOL PURCHASING GUIDE





# Welcome to THE SCIENCE PENGUIN

Hi there,

As the owner of The Science Penguin, I am here to connect **TEKS-aligned learning and student engagement**. We provide teachers with ideas, activities, and resources to effectively teach the streamlined Science TEKS while inspiring students through a hands-on, differentiated environment.

We can move **beyond workbooks, textbooks, and seatwork** to truly inspire students while also ensuring that they are prepared for STAAR.

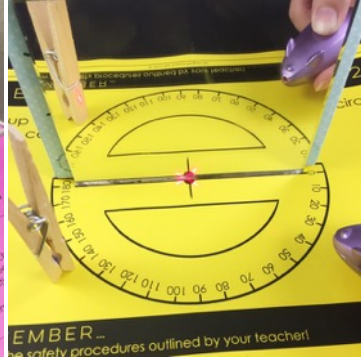
**Let's work together** to help students explore, learn, and experience the wonder of science.

Ari Mosquera

Owner, The Science Penguin

Ari Mosquera is a former 4<sup>th</sup> and 5<sup>th</sup> grade teacher. She taught in San Antonio and the Austin area before moving on to provide professional development and curriculum resources to teachers across the country. She still teaches 5<sup>th</sup> grade students in small groups and works directly with teachers across Texas to provide quality science instruction to all students.





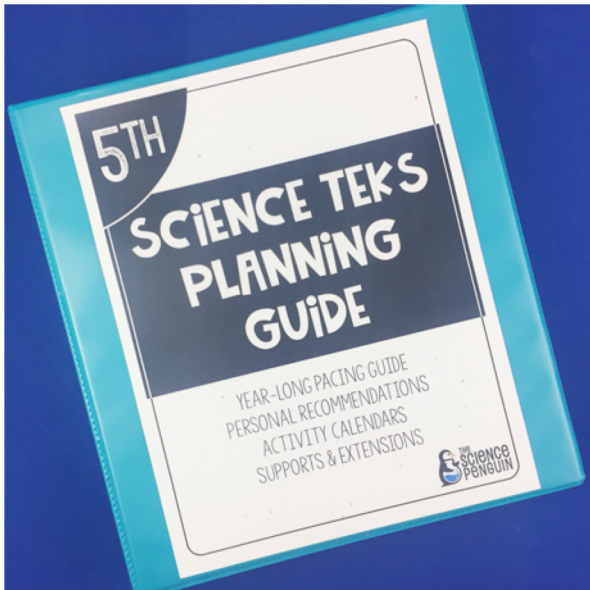
# WHAT WE OFFER

Unlike publishing companies that don't align their textbooks to the TEKS as well as they should, The Science Penguin offers resources designed specifically to help teachers successfully teach each individual Student Expectation. I am up-to-date with the information provided by TEA and take my responsibility to students and teachers very seriously.

The Science Penguin offers two bundles of resources, one for 4<sup>th</sup> grade and the other for 5<sup>th</sup> grade.



# LESSON PLANNING GUIDES



Each grade level bundle includes a valuable lesson planning guide for every unit.

The planning guide includes:

- Insider teaching notes
- Focus TEKS
- Day-by-day activity recommendations
- Literature connections
- Supports and extensions

### SCIENCE TEKS PLANNING GUIDE

#### 5TH GRADE PACING GUIDE

Here is a basic overview of my recommendations for pacing. As we know, education is not one size fits all. Varied district calendars, required pacing guides, and individual student needs and strengths make me hesitant to provide a pacing guide. However, I thought some teachers might find this helpful when following along with my activity recommendations. There are 30 weeks of activity recommendations to allow for community-building, assemblies, Science Activity Time, testing, field trips, projects, and other activities.

TOPIC	WEEKS (APPROXIMATE)
Scientific Method and Tools	3
Matter	5
Force and Motion	2
Energy	4
Earth's Surface	3
Weather and Water	1
Solar System	2
Life Science	6
STAAR Review	4

5th Grade Science STAAR: May 15, 2019

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### SCIENCE TEKS PLANNING GUIDE

#### LIFE SCIENCE

This unit is unique because you will find some of the topics are brought up again throughout the unit. I know many schools are required to give district tests for individual units so I did a combined approach of integration with a stand alone order of topics.

The theme for this unit is the ocean. Students will learn about tide pool ecosystems, ocean food webs, shark adaptations, and the unique coral reef ecosystem.

By this time in the year, students are completing *Output* in their own way in their notebooks. However, I included a few recommended prompts that you might offer your students as an option.

As always, if you can possibly bring science to life, do it! Do you have access to a mobile zoo, pond, or some friendly critter? Bring them into your classroom and engage your students with real life observations!

**TEKS:**  
We will focus on 5.9A-D (ecosystems), 5.10A (structures and functions for survival), and 5.10B (inherited traits vs. learned behaviors).

**Pacing:**  
I planned 30 days for this unit. Eleven days are focused on ecosystems, three days are for inherited traits and learned behaviors, seven days for adaptations, two days for life cycles, three days for fossils, as well as a 4-day coral reef project.

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### SCIENCE TEKS PLANNING GUIDE

#### LIFE SCIENCE

**Test Prep:**  
5.9A and 5.9B are readiness standard and each typically appear on STAAR twice per released test. 5.9C is a supporting standard and usually appears once per year. 5.9D has rarely appeared on STAAR. 3.9A has shown up on STAAR several times. 5.10A, as readiness standard, typically appears in two questions each year. These questions require students to compare two organisms (plants or animals). 5.10B, as readiness standard, is typically tested twice on each released test. 3.10C has appeared on most released tests, as well.

**Essential Questions:**  
How does an organism depend on living and non-living components of its ecosystem for survival?  
How is energy transferred in an ecosystem?  
How can ecosystems change?  
How do certain external structures benefit organisms?  
How do inherited traits and learned behaviors differ?

**Please remember this is a planning guide. I don't know your students like you do. Test yourself to decide what is best for your students!**

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### SCIENCE TEKS PLANNING GUIDE

#### LIFE SCIENCE

#### FOCUS TEKS 5.9

5.9 The student knows that there are relationships, systems, and cycles within environments. The student is expected to:

5.9A observe the way organisms live and survive in their ecosystem by interacting with the living and non-living elements

5.9B describe the flow of energy within a food web, including the roles of the Sun, producers, consumers, and decomposers

5.9C predict the effects of changes in ecosystems caused by living organisms, including humans, such as the overpopulation of grasses or the building of highways

5.9D identify fossils as evidence of past living organisms and the nature of the environments of the time using models

#### PREVIOUSLY TAUGHT TEKS FOR 5.9

3.9A observe and describe the physical characteristics of environments and how they support populations and communities within an ecosystem

3.9C describe environmental changes such as floods and droughts where some organisms thrive and others perish or move to new locations

4.9A investigate how most producers need sunlight, water, and carbon dioxide to make their own food, while consumers are dependent on other organisms for food

4.9B describe the flow of energy through food webs, beginning with the Sun, and predict how changes in the ecosystem affect the food web such as a fire in a forest

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### SCIENCE TEKS PLANNING GUIDE

#### LIFE SCIENCE

#### FOCUS TEKS 5.10

5.10 The student knows that organisms undergo similar life processes and have structures that help them survive within their environments. The student is expected to:

5.10A compare the structures and functions of different species that help them live and survive such as hooves on prairie animals or webbed feet in aquatic animals

5.10B differentiate between inherited traits of plants and animals such as spines on a cactus or shape of a bone and learned behaviors such as an animal learning tricks or a child riding a bicycle

#### PREVIOUSLY TAUGHT TEKS FOR 5.10

3.10C investigate and compare how animals and plants undergo a series of similar changes in their diverse life cycles such as tomato plants, frog, and baby bugs

4.10A explore how adaptations enable organisms to survive in their environment such as comparing bear tracks and lessons on plants

4.10B demonstrate that some behaviors between parents and offspring are inherited, passed from generation to generation such as eye color in humans or phases of leaves in plants. Other behaviors are learned such as table manners or reading a book and skills balancing balls on their noses

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### SCIENCE TEKS PLANNING GUIDE

#### LIFE SCIENCE

I've found that most students are more familiar with life science concepts than physical or earth science. The TEKS progress just slightly grade level to grade level in life science, so much of this unit is reviewing past learning, making new connections, and digging deeper.

**My list of things to emphasize in this unit:**

- Annotate represent the flow of energy in a food chain and food web. Some students draw the arrows going the wrong direction to show "who eats who?" I often counter this by asking if the plant in a food chain eats the sun. They laugh and we talk about what the arrows really represent.
- Students have been identifying external structures and their functions. 5th grade is when we compare. I recommend my Observations Stations while inherited traits vs. learned behaviors seems easy enough, many students do struggle with the way it is tested. Be sure to emphasize inlets and characteristics that can be inherited (e.g. wings).

#### WHAT'S NEW?

Identifying interactions between living and non-living things in an ecosystem describing the role of decomposers in a food web the effects of living organisms on ecosystems

Identifying fossils as evidence of past living organisms comparing structures and functions of plants and animals for survival

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### SCIENCE TEKS PLANNING GUIDE

#### LIFE SCIENCE

This is my planning guide based on 5 days a week with 60-70 minute departmentalized classes. Every campus, teacher, class, and student is different, so **trust your professional judgment** when planning for your students.

DAY	ACTIVITIES	MATERIALS
1	1. Read Aloud: In One Tidypool and Video Clip (5 minutes) 2. Components of a Tide Pool activity 3. As a class, apply this activity to a different ecosystem students are familiar with, perhaps the recess yard. Make a T-Chart of living and non-living components. Start talking about how the components interact (grass needs sunlight for photosynthesis, birds need insects for energy, etc.) 4. Output: student choice	• Activity from <a href="#">Ocean Life</a>
2	1. Tide Pool Interactions activity 2. Output: student choice	• Activity from <a href="#">Ocean Life</a>
3	1. Producers, Consumers, and Decomposers Worksheet 2. Tide Pool Energy page 3. Suggested Output: Draw a diagram that shows what producers need in order to obtain energy (sunlight, water, carbon dioxide).	• <a href="#">Energy and Photosynthesis</a> • <a href="#">Producers, Consumers, and Decomposers</a> • <a href="#">Tide Pool Energy</a>

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### SCIENCE TEKS PLANNING GUIDE

#### LIFE SCIENCE

DAY	ACTIVITIES	MATERIALS
1	1. Food Webs PPT 2. Food Webs and Food Chains Cut and Paste 3. Watch Crash Course Kids video clip (3 minutes) 4. Discuss: How might decomposers obtain energy if added to the food web in the cut and paste?	• <a href="#">Energy and Photosynthesis</a> • Cut & Paste from Life PPT or <a href="#">Life Cycle</a> • <a href="#">Crash Course Kids</a> video clip (3 minutes)
4	1. Suggested Output: Why are decomposers important to an ecosystem?	• <a href="#">Energy and Photosynthesis</a> • Activity from <a href="#">Ocean Life</a>
5	1. Read Aloud: If Sharks Disappeared... 2. Working Ocean Food Web Activity 3. Output: student choice	• <a href="#">Energy and Photosynthesis</a> • Activity from <a href="#">Ocean Life</a>
6	1. Food Webs Observation Stations 2. Output: student choice	• Food Webs <a href="#">Observation Stations</a>

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### SCIENCE TEKS PLANNING GUIDE

#### LIFE SCIENCE

DAY	ACTIVITIES	MATERIALS
7	1. Test Prep Scenario #20 2. Ecosystems Stations, Research, and Enrich	• <a href="#">Test Prep Scenarios</a> • <a href="#">Ecosystems Stations</a> • <a href="#">Research and Enrichment</a>

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### SCIENCE TEKS PLANNING GUIDE

#### LIFE SCIENCE

DAY	ACTIVITIES	MATERIALS
10	1. Learned Behaviors and Inherited Traits PPT 2. Shark Characteristics Sort: Inherited or Acquired 3. Output: student choice	• <a href="#">Learned Behaviors and Inherited Traits</a> • Sort from <a href="#">Ocean Life</a>

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### SCIENCE TEKS PLANNING GUIDE

#### LIFE SCIENCE

DAY	ACTIVITIES	MATERIALS
13	1. Show students a paragraph and watch the Crash Course Kids Video Clip (5 minutes). 2. Discuss why parasites can't survive on the poles. 3. Adaptations PPT 4. Adaptations Output: Adaptations Roll	• <a href="#">Energy and Photosynthesis</a> • <a href="#">Read up from Life PPT or <a href="#">Ocean Life</a></a>

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### SCIENCE TEKS PLANNING GUIDE

#### LIFE SCIENCE

DAY	ACTIVITIES	MATERIALS
14	1. Adaptations Observation Stations 2. Output: student choice 3. Test Prep Scenario #23	• Adaptations <a href="#">Observation Stations</a> • <a href="#">Test Prep Scenarios</a>

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# 4<sup>TH</sup> GRADE SCIENCE BUNDLE



Because the 5<sup>th</sup> Grade Science Bundle was so popular among teachers, I decided to continue with a 4<sup>th</sup> grade bundle. This is your opportunity for **seamless vertical alignment** on your campus.

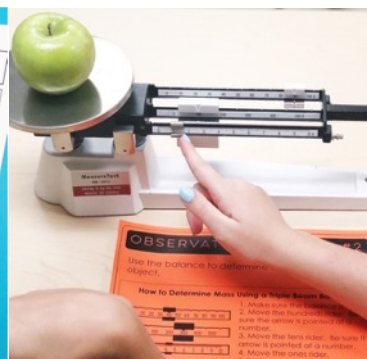
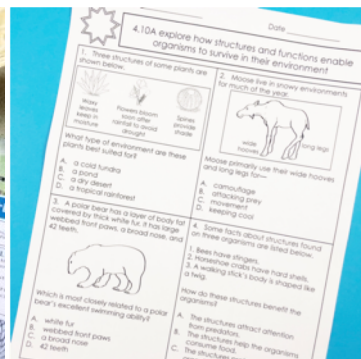
## Important Notes

Because I want to provide teachers the resources they need to differentiate, you will see some resources can be found in both the 4<sup>th</sup> grade and the 5<sup>th</sup> grade bundle.

However, the activities suggested in the planning guide are totally different to ensure vertical alignment for teachers using Science Penguin resources in both grades.

## What is included?

- Labs and stations
- Notebook templates
- PowerPoints and notes
- Vocabulary lessons
- TEKS-based assessments
- Exit tickets
- Task cards



# 5<sup>TH</sup> GRADE SCIENCE BUNDLE

## 5<sup>TH</sup> GRADE SCIENCE BUNDLE



As a teacher who works with 5<sup>th</sup> graders, I know how challenging it is to keep students excited about learning while also preparing them to conquer the Science STAAR. This resource will help you engage your students in meaningful, TEKS-aligned learning.

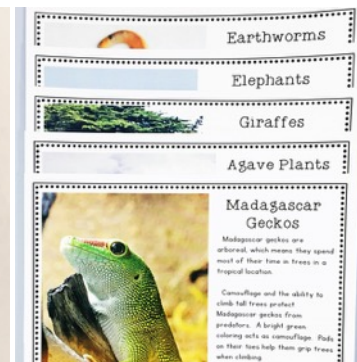
## What is included?

- Labs and stations
- Notebook templates
- PowerPoints and notes
- Vocabulary lessons
- STAAR review activities
- TEKS-based assessments
- Lockbox challenges
- Projects
- Exit tickets
- Task cards
- Year-long spiral review

"The Science Penguin is the **ONLY** resource I have found that is perfectly aligned with the Texas TEKS, professionally done, and allows my students to be actively engaged in their learning. Using The Science Penguin resources has helped me increase my school's science scores by 20%!"



Marissa  
5<sup>th</sup> Grade Teacher



# PURCHASING AND LICENSING

The Science Penguin is here to make the purchasing and licensing process as simple as possible.

## Legal Information

1. It is important that you purchase the correct number of user licenses for the number of classrooms that will be using the resource. Unless a teacher is working as support personnel in one classroom with the teacher of record, teachers may not “share” a license.
2. Any resources a teacher acquires due to a purchase made by the campus or district must remain with the campus or district. The prices in this guide are for **transferable licenses** that the school can pass on to a new teacher if a teacher leaves. Teachers are NOT legally allowed to take files with them to use elsewhere.

## Individual Classroom Purchase

You are welcome to use the online Thinkific system to purchase a bundle for one individual classroom using a credit card. We can also process a Purchase Order.

## Multiple Classrooms Purchase

To purchase licenses for multiple teachers on your campus or in your district, please contact us at [customerservice@thesciencepenguin.com](mailto:customerservice@thesciencepenguin.com). You will be asked to provide the names and emails of all users.

## Purchase Orders

We DO accept Purchase Orders. Please contact us at [customerservice@thesciencepenguin.com](mailto:customerservice@thesciencepenguin.com) to begin the purchasing process.

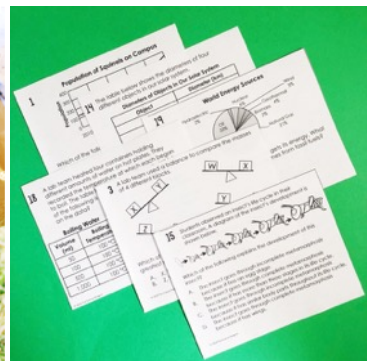
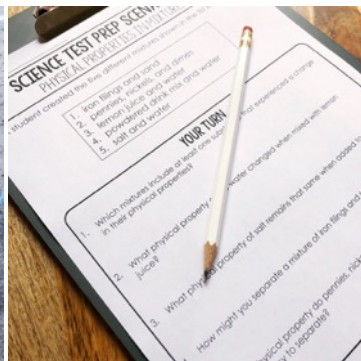
# PURCHASING AND LICENSING

## 4<sup>th</sup> Grade Science Bundle {Texas Edition}

NUMBER OF TEACHERS	TRANSFERABLE LICENSE COST
1	\$299
2	\$569
3	\$839
4	\$1099
5+	Please contact us

## 5<sup>th</sup> Grade Science Bundle {Texas Edition}

NUMBER OF TEACHERS	TRANSFERABLE LICENSE COST
1	\$399
2	\$749
3	\$1099
4	\$1399
5+	Please contact us

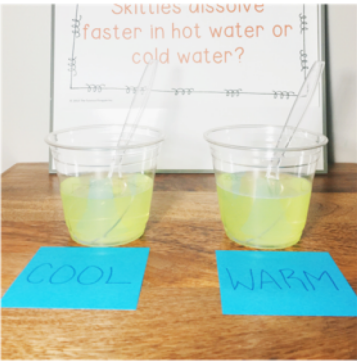






# HAPPY TEACHERS

"My students and I love Science Penguin resources! They are **extremely engaging for kids** and at a rigor that my administrators and I are looking for. I'm am thankful these exist!"  
-Charitie



"My new favorite items are the lockbox reviews! The Science Penguin designed these Lockbox activities with ready-to-go options such as digital locks. As with all her products, the **rigor and questioning** are carefully **aligned to the TEKS**. My class is **100% engaged** in problem solving as students **collaborate** to solidify their understanding."  
-Christy



"After 5 years of teaching science, this is the first school year that I feel comfortable dedicating more time to **relationship-building** and making meaningful connections with my students, rather than feeling like I have to spend my time creating material that suits mine and my students' needs, and it is because of Ari, and her **amazing and comprehensive** 5th grade science bundle. I trust the quality of her work, and have witnessed that her ideas and products are engaging, rigorous, and **prepare my students for far more** than just their STAAR tests."  
-Veronica



"Planning for science is so easy with The Science Penguin's TEKS Planning Guides! Each unit is mapped out with **high quality materials and explanations** on how to teach concepts effectively. From warm-ups, to stations, to journals... everything is awesome! Our scores **went up 20%** in my first year and our school was given a distinction in science. I couldn't have done it without her!"  
-Katie



# Thank you!

Thank you for learning more about the resources The Science Penguin can offer you and your teachers.

If you have questions, please reach out to the team at [customerservice@thesciencepenguin.com](mailto:customerservice@thesciencepenguin.com). We are here to help!

-Team Science Penguin  
[thesciencepenguin.com](http://thesciencepenguin.com)

