



TEKS Guide 101

TEA Science Curriculum Team

Meet Your Facilitators

Shawna Wiebusch

Math & Science Director



Liz Baker

Secondary Science Specialist



Carla Bailey

Elementary Math & Science
Specialist



Phone: 512-463-9581

Website: <https://tea.texas.gov/academics/subject-areas/science>

Today we will —

- explain what the science TEKS Guide is;
- review the components of the science TEKS Guide; and
- answer questions about using the science TEKS Guide.

Components of the Science TEKS Guide

- The Student Expectation
 - Student expectations with detailed explanations and glossary support
- Overview
 - Further explanations, demonstrated proficiency (*K–2), glossary support, and supporting information
- Alignments
 - Recurring themes and concepts (*K–8)
 - Vertical alignment
 - Cross-curricular connections (*K–8)
 - Side-by-side

Components of the Science TEKS Guide

| Component | K | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | Bio | IPC | Chem | Phys |
|-----------------------------------|---|---|---|---|---|---|---|---|---|-----|-----|------|------|
| Detailed Explanation Rollovers | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Demonstrated Proficiency | ✓ | ✓ | ✓ | | | | | | | | | | |
| Further Explanations | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Glossary Support | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Supporting Information (Research) | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |

Components of the Science TEKS Guide Continued

| Component | K | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | Bio | IPC | Chem | Phys |
|-----------------------------------------|---|---|---|---|---|---|---|---|---|-----|-----|------|------|
| Vertical Alignment | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Recurring Themes and Concepts Alignment | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | | |
| Cross-curricular connections | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | | |

Science TEKS Guide – The Student Expectation

Science.K.13.B

The student is expected to identify the different structures that animals have that allow them to interact with their environment such as seeing, hearing, moving, and grasping objects;

[Previous](#)

[Next](#)



Science TEKS Guide – The Student Expectation

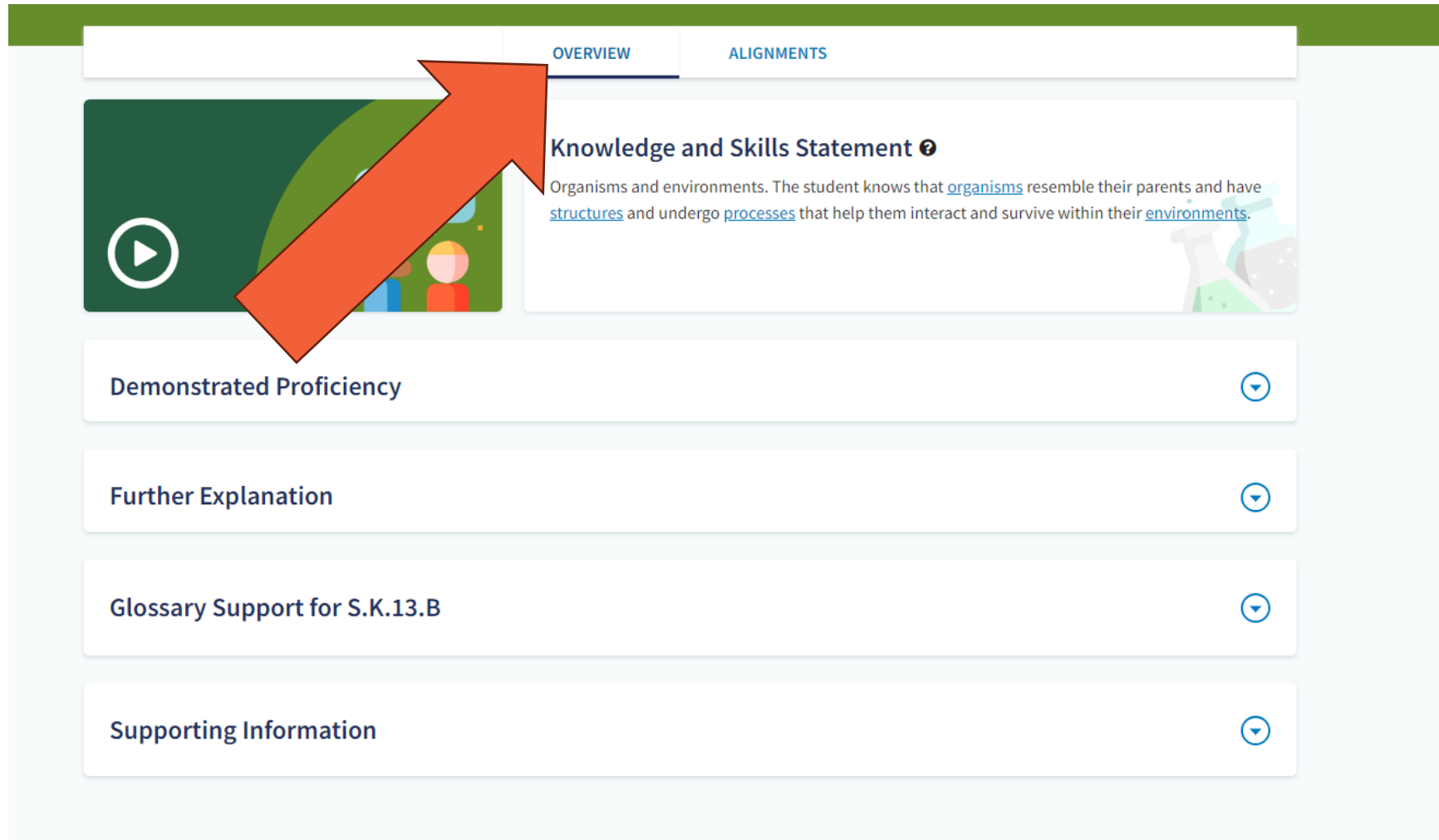
Detailed Explanations

- Rollovers that call out a specific word or phrase in a student expectation
- Provides clarity and consistency for educators
- *May* include an instructional boundary
 - support Tier 1 instructional expectations for **all** students
 - provide scaffolds for students who need support
 - provide enrichment for students who are ready to move beyond the baseline

Glossary Support

- Rollovers that define a term at the teacher level
- Same definition k–12
- Dedicated section as well as rollovers

Science TEKS Guide – The Overview Section



The screenshot shows the 'Overview' section of the Science TEKS Guide. At the top, there are two tabs: 'OVERVIEW' (selected) and 'ALIGNMENTS'. Below the tabs is a 'Knowledge and Skills Statement' section. On the left of this section is a video player icon (a play button in a circle) and a large orange arrow pointing towards the text. The text reads: 'Organisms and environments. The student knows that [organisms](#) resemble their parents and have [structures](#) and undergo [processes](#) that help them interact and survive within their [environments](#).' To the right of the text is an illustration of laboratory glassware. Below the 'Knowledge and Skills Statement' are four expandable sections: 'Demonstrated Proficiency', 'Further Explanation', 'Glossary Support for S.K.13.B', and 'Supporting Information'. Each section has a downward-pointing arrow on the right side.

OVERVIEW ALIGNMENTS

Knowledge and Skills Statement ⓘ

Organisms and environments. The student knows that [organisms](#) resemble their parents and have [structures](#) and undergo [processes](#) that help them interact and survive within their [environments](#).

Demonstrated Proficiency

Further Explanation

Glossary Support for S.K.13.B

Supporting Information

Science TEKS Guide – The Overview Section

Demonstrated Proficiency*

- Developed for kindergarten – grade 2
- Provides an example of how to assess a student expectation
- Provides descriptions of grade level appropriate responses from students

Further Explanation

- Provides additional background information and context for teachers.
- May include misconceptions, vertical alignment notes, examples, deeper scientific understanding
- Designed for educator understanding—not a student grade level appropriate understanding

Glossary Support

- Same definition K–12
- Intended to develop a consistent understanding of the terms regardless of grade level taught
- Not student level definitions

Supporting Information

- Research articles which support the content
- In K–8, more focused on integration of content and pedagogy
- In high school, more focused on research happening in the field

Science TEKS Guide – The Alignments Section

OVERVIEW ALIGNMENTS

SCIENCE.K.13.B – Vertical Alignment

Vertical alignment shows student expectations in the same grade level at different grade levels that are related to or build upon one another.

Vertical

Recurring Themes & Concepts

Cross curricular

Side-By-Side

S.K.13.B identify the different structures that animals have that allow them to interact with their environment such as seeing, hearing, moving, and grasping objects;

S.1.13.A identify the external structures of different animals and compare how those structures help different animals live, move, and meet basic needs for survival;

S.2.13.B record and compare how the structures and behaviors of animals help them find and take in food, water, and air;

S.3.13.A explore and explain how external structures and functions of animals such as the neck of a giraffe or webbed feet on a duck enable them to survive in their environment; and

S.5.13.A analyze the structures and functions of different species to identify how organisms survive in the same environment; and

Science TEKS Guide – The Alignments Section

Vertical alignment

- Developed K–High school
- Progression of concepts from one grade level to the next

Recurring themes and concepts alignment*

- Developed K–8
- Connective structure that spans all science content
- Provides teachers with a tool to help students understand how content fits into the broader understanding of science today

Cross-curricular connections*

- Developed K–8
- Content connections within a grade level between science and math, social studies, English language arts, and technology applications
- May be used to build lessons that reinforce content from different subject areas

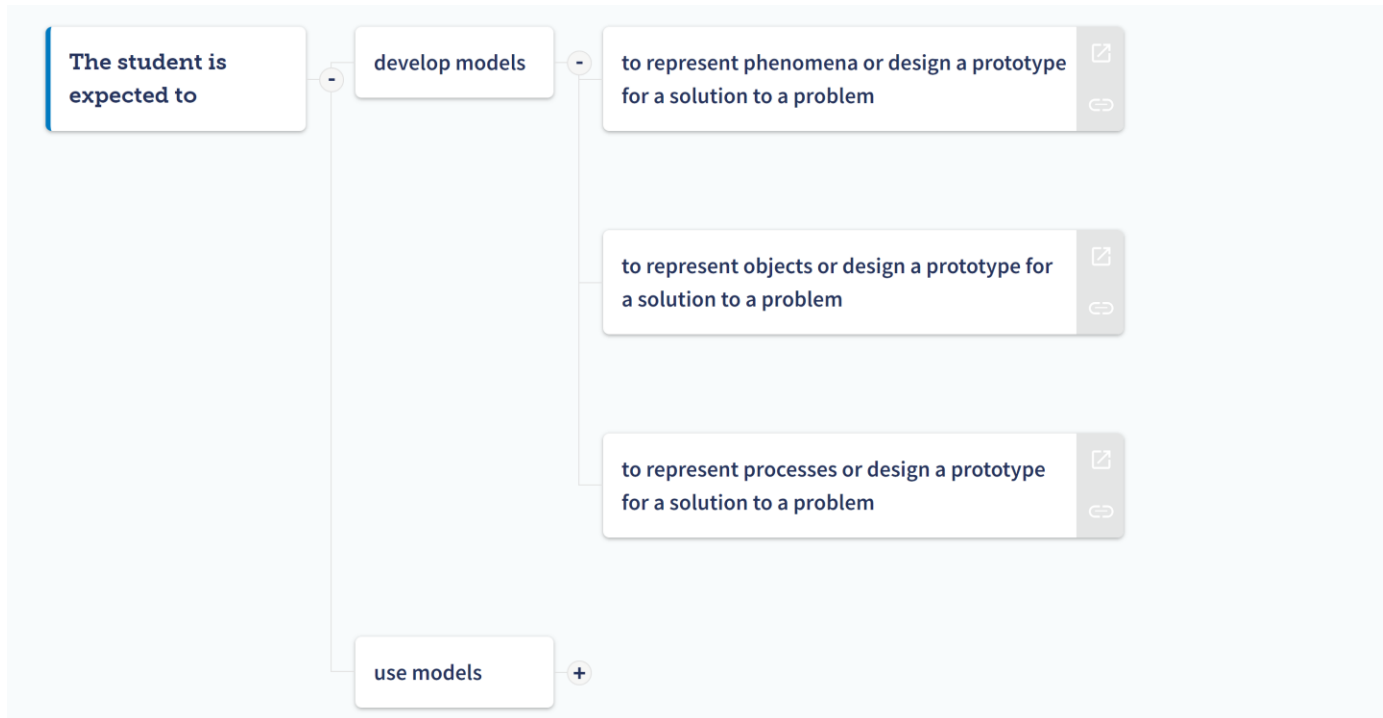
Side-by-Side

- Direct comparison of old standards to new standards
- Will remain posted until the end of the 2025–2026 school year

Science TEKS Guide – The Alignments Section Continued

Science.K.1.G

The student is expected to [develop and use models](#) to represent [phenomena](#), objects, and [processes](#) or design a [prototype](#) for a solution to a problem.



Breakouts

- Developed K–High school
- Visual way to deconstruct a student expectation into its component parts
- In production

Poll

On a scale of 1 – 10, how likely are you to recommend the Science TEKS Guide to colleagues?

Certificates

<https://bit.ly/TEKSGuideJuly9>

Note: You must download the certificate before filling your information in.



Questions



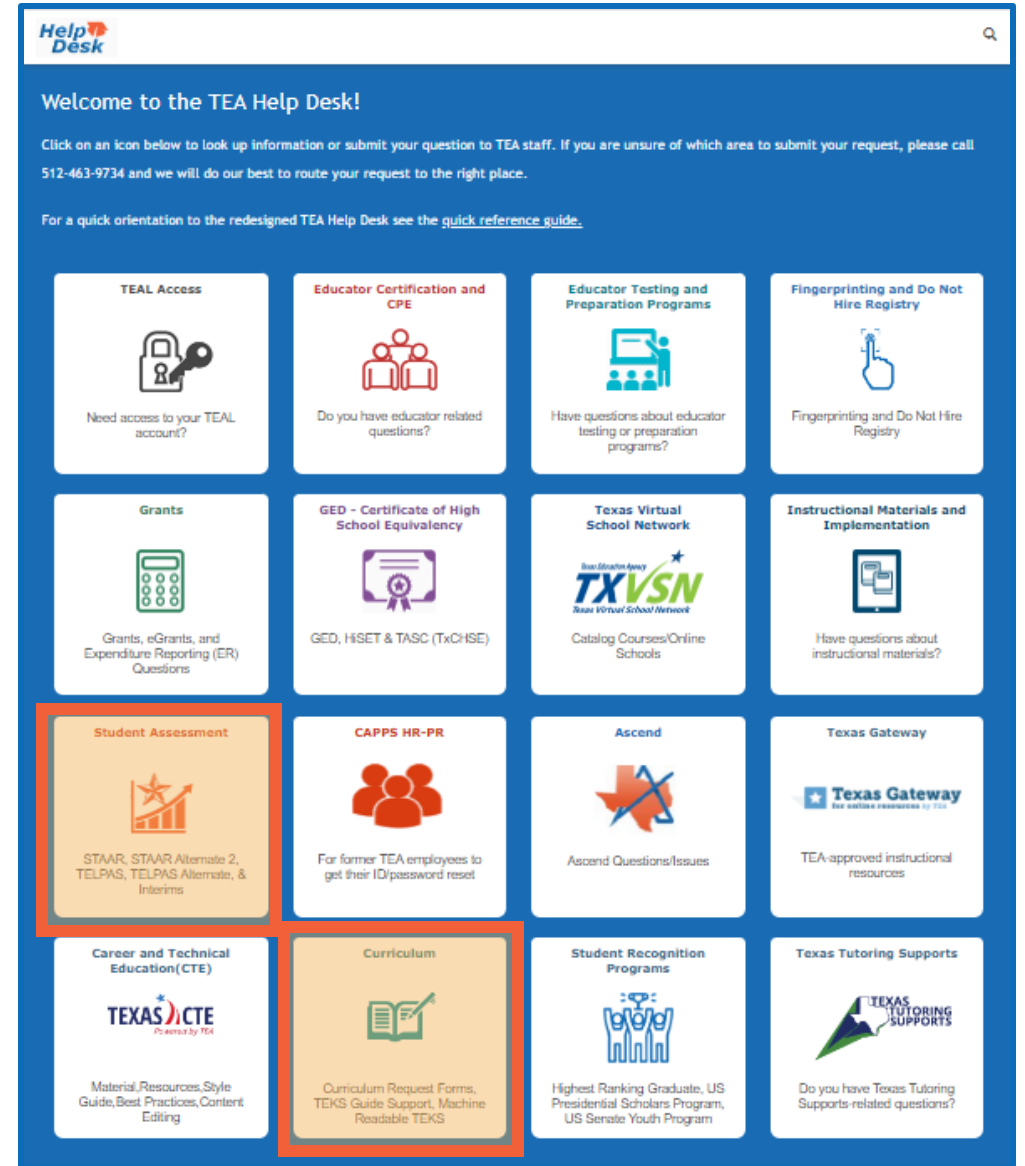
TEA Help Desk

For questions or help on topics related to science:

- Curriculum
- Assessment



<https://helpdesk.tea.texas.gov/>



The screenshot shows the TEA Help Desk website interface. At the top left is the "Help Desk" logo. Below it, a welcome message reads: "Welcome to the TEA Help Desk! Click on an icon below to look up information or submit your question to TEA staff. If you are unsure of which area to submit your request, please call 512-463-9734 and we will do our best to route your request to the right place. For a quick orientation to the redesigned TEA Help Desk see the [quick reference guide](#)." Below the text is a grid of 16 service tiles. The tiles are: TEAL Access (Need access to your TEAL account?), Educator Certification and CPE (Do you have educator related questions?), Educator Testing and Preparation Programs (Have questions about educator testing or preparation programs?), Fingerprinting and Do Not Hire Registry (Fingerprinting and Do Not Hire Registry), Grants (Grants, eGrants, and Expenditure Reporting (ER) Questions), GED - Certificate of High School Equivalency (GED, HSET & TASC (TxCHSE)), Texas Virtual School Network (Catalog Courses/Online Schools), Instructional Materials and Implementation (Have questions about instructional materials?), Student Assessment (STAAR, STAAR Alternate 2, TELPAS, TELPAS Alternate, & Interims), CAPPS HR-PR (For former TEA employees to get their ID/password reset), Ascend (Ascend Questions/Issues), Texas Gateway (TEA-approved instructional resources), Career and Technical Education (CTE) (Material, Resources, Style Guide, Best Practices, Content Editing), Curriculum (Curriculum Request Forms, TEKS Guide Support, Machine Readable TEKS), Student Recognition Programs (Highest Ranking Graduate, US Presidential Scholars Program, US Senate Youth Program), and Texas Tutoring Supports (Do you have Texas Tutoring Supports-related questions?). The "Student Assessment" and "Curriculum" tiles are highlighted with a red border.



Subscribe to TEA Science Newsletter

Science

TEKS in Focus

Science TEKS updates

TEKS Guide updates

Science curriculum resources

Grants and external science learning opportunities



SCAN ME

<https://bit.ly/3tKVJIA>

Presenter Feedback Survey

Please help us enhance future presentations by completing this short survey on today's presentation:

<https://is.gd/TEAsurvey1>



Shawna Wiebusch, Carla Bailey, Liz Baker

© 2024 by the Texas Education Agency Copyright © Notice.

The Materials are copyrighted © and trademarked ™ as the property of Texas Education Agency (TEA) and may not be reproduced without the express written permission of TEA except under the following conditions:

- 1) Texas public school districts, charter schools, and education service centers may reproduce and use copies of the Materials and Related Materials for the districts' and schools' educational use without obtaining permission from TEA.
- 2) Residents of the state of Texas may reproduce and use copies of the Materials and Related Materials for individual personal use only, without obtaining written permission from TEA.
- 3) Any portion reproduced must be reproduced in its entirety and remain unedited, unaltered, and unchanged in any way.
- 4) No monetary charge can be made for the reproduced materials or any document containing them; however, a reasonable charge to cover only the cost of reproduction and distribution may be charged.

Private entities or persons located in Texas that are not Texas public school districts, charter schools, or education service centers, or any entity, whether public or private, educational or non-educational, located outside the state of Texas must obtain written approval from TEA and will be required to enter into a license agreement that may involve the payment of a licensing fee or a royalty.

For information, contact the Office of Copyrights, Trademarks, License Agreements, and Royalties, Texas Education Agency, 1701 N. Congress Ave., Austin, Texas, 78701-1494; phone 512-463-9041, email: copyrights@tea.texas.gov.