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Science Readers: Content and Literacy in Science— Kindergarten (Spanish)

This sample includes the following:

Teacher's Guide Cover (1 page)

Table of Contents (2 pages)

How to Use This Product (5 pages)

Lesson Plan (11 pages)

Reader (12 pages)

To Create a World ⁱⁿ which
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SCIENCE READERS

Content *and* Literacy *in* Science

Kindergarten

**Teacher's
Guide**

**Spanish
Version**

Teacher Created Materials
PUBLISHING



Table of Contents

INTRODUCCIÓN

Series Welcome	5
Fostering Content-Area Literacy	6
Science in the 21st Century	12
Using the 5Es in a Classroom	14
The 5Es and This Book	15
How to Use This Product	16
About the Books	26
Introduction to Standards Correlations	34
Correlations to Standards	35

CIENCIAS NATURALES

¡Está vivo!	
Lesson Plan	39
Student Reproducibles	44
Animales bebés	
Lesson Plan	50
Student Reproducibles	55
Semillas	
Lesson Plan	61
Student Reproducibles	66
¿Qué necesitan los seres vivos?	
Lesson Plan	72
Student Reproducibles	77
Crecimiento	
Lesson Plan	83
Student Reproducibles	88

CIENCIAS FÍSICAS

Veo, veo	
Lesson Plan	94
Student Reproducibles	99
Describelo	
Lesson Plan	105
Student Reproducibles	110
¿Sólido o líquido?	
Lesson Plan	116
Student Reproducibles	121
Hecho en la naturaleza	
Lesson Plan	127
Student Reproducibles	132
Sale el sol	
Lesson Plan	138
Student Reproducibles	143

Table of Contents *(cont.)*

CIENCIAS de la TIERRA y del ESPACIO

¿Cómo está el tiempo?

Lesson Plan	149
Student Reproducibles	154

El tiempo cambiante

Lesson Plan	160
Student Reproducibles	165

En la tierra

Lesson Plan	171
Student Reproducibles	176

En el agua

Lesson Plan	182
Student Reproducibles	187

¡Demasiada basura!

Lesson Plan	193
Student Reproducibles	198

PRÁCTICAS CIENTÍFICAS

¡Clasifícalo!

Lesson Plan	204
Student Reproducibles	209

APÉNDICES

Culminating Activity: ¿Cómo podemos ayudar?	215
Activity Sheets <i>¿Cómo podemos ayudar?</i>	217
<i>Pauta: ¿Cómo podemos ayudar?</i>	220
Answer Key	221
References Cited	229
Digital and Audio Content	231



Life Science books

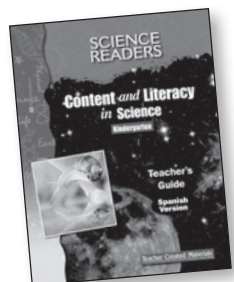


Physical Science books

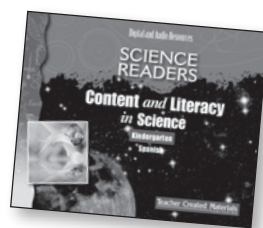


Earth and Space Science books

Scientific Practices book



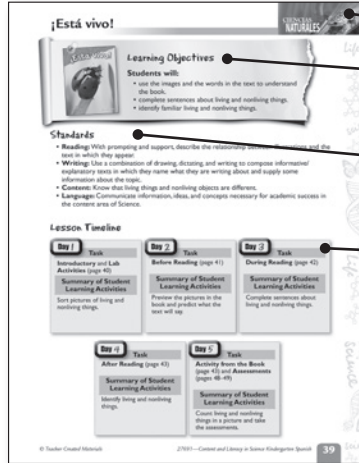
Teacher's Guide



Digital and Audio Resources

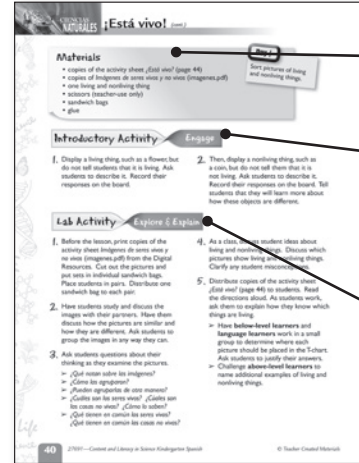
Unit Organization

Overview Page



Science strand
Learning objectives
Standards
Suggested timeline for lesson

Introductory and Lab Activities



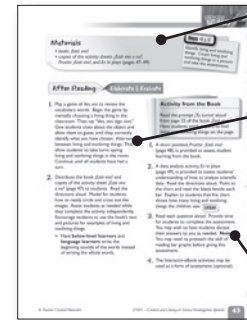
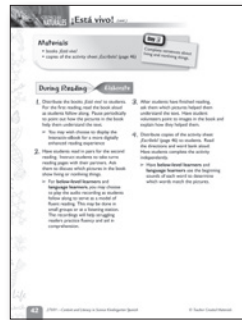
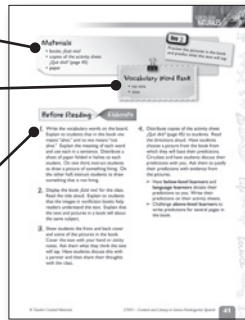
Materials
Engage students with the Introductory Activity
Explore and Explain the new concept with the Lab Activity

Before Reading

During Reading

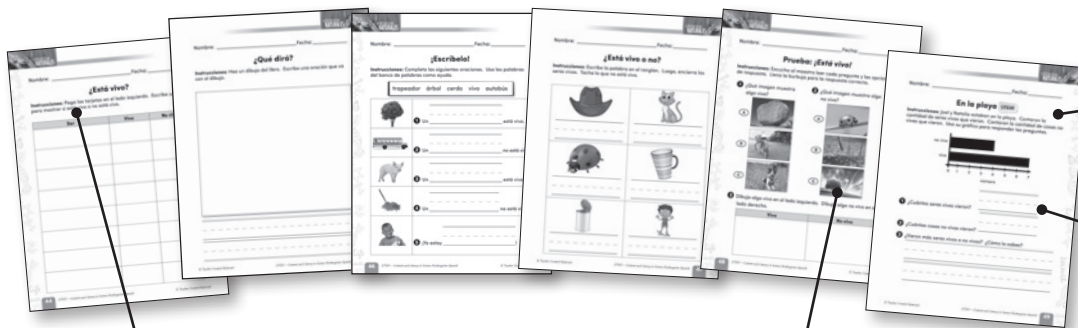
After Reading

Materials list
Vocabulary
Word Bank



Materials list
Elaborate with an After Reading activity on Day 4
Evaluate with Assessments on Day 5

Student Reproducibles and Assessments



Clear directions

Multiple-choice quiz

Data Analysis activity
Wide write-on lines

Pacing Plan

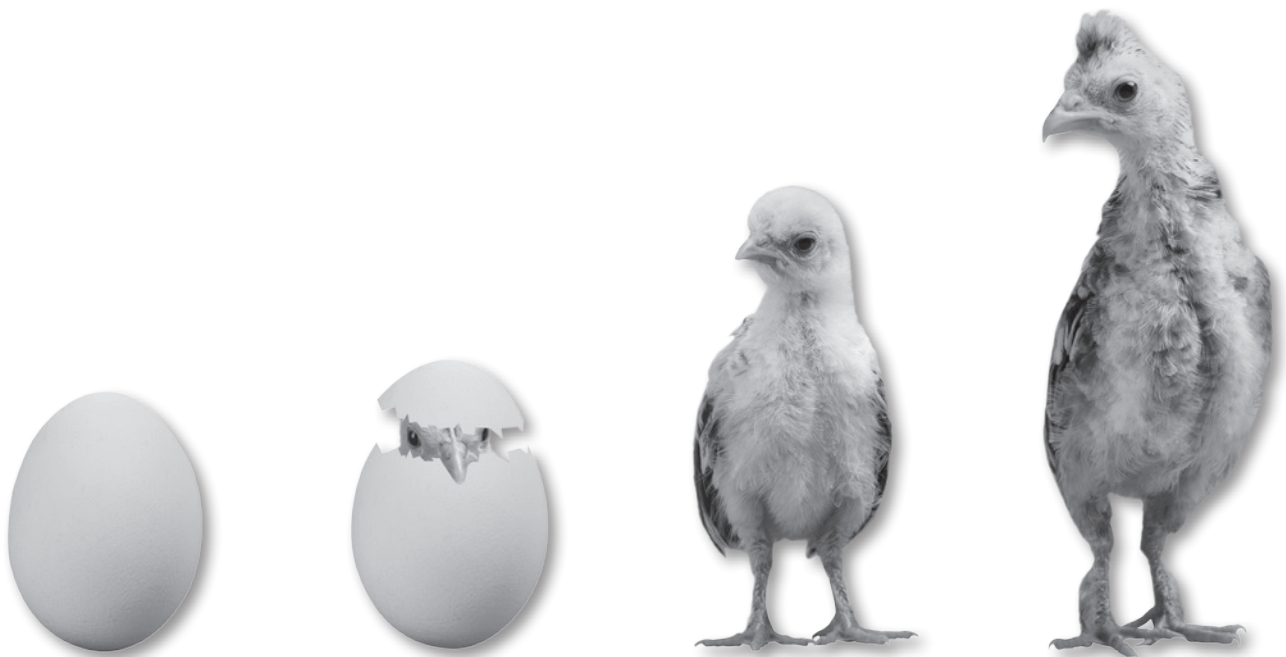
The following pacing plan shows an option for using this product. Teachers should customize this pacing plan according to their students' needs. One lesson has been included for each of the 16 books. Each day of the lesson requires 15 to 30 minutes of time and spans 5 instructional days, for a total of approximately 20–40 hours over the course of 80 days.

Instructional Time	Frequency	Setting
15–30 min./day	5 days/week	Whole-class, small-group or one-on-one instruction

Day 1	Day 2	Day 3	Day 4	Day 5
Introductory and Lab Activities	Before Reading	During Reading	After Reading	Activity from the Book and Assessments

Lab Safety

To ensure safety in the science classroom, a *Contrato de seguridad en la ciencia* has been provided in the Digital Resources (*seguridad.pdf*). Distribute copies of this contract to students prior to beginning any science instruction. Discuss with students how to be respectful and responsible during science activities. Ask students and their parents/guardians to sign and return the contract for your records.



Science Strands

The books and lessons in this kit cover the three strands of science which encompass the Disciplinary Core Ideas. The icons in the lessons and on the back of the books denote each strand. One book in this kit is devoted completely to scientific practices. This book describes how to think like a scientist and study the natural world.

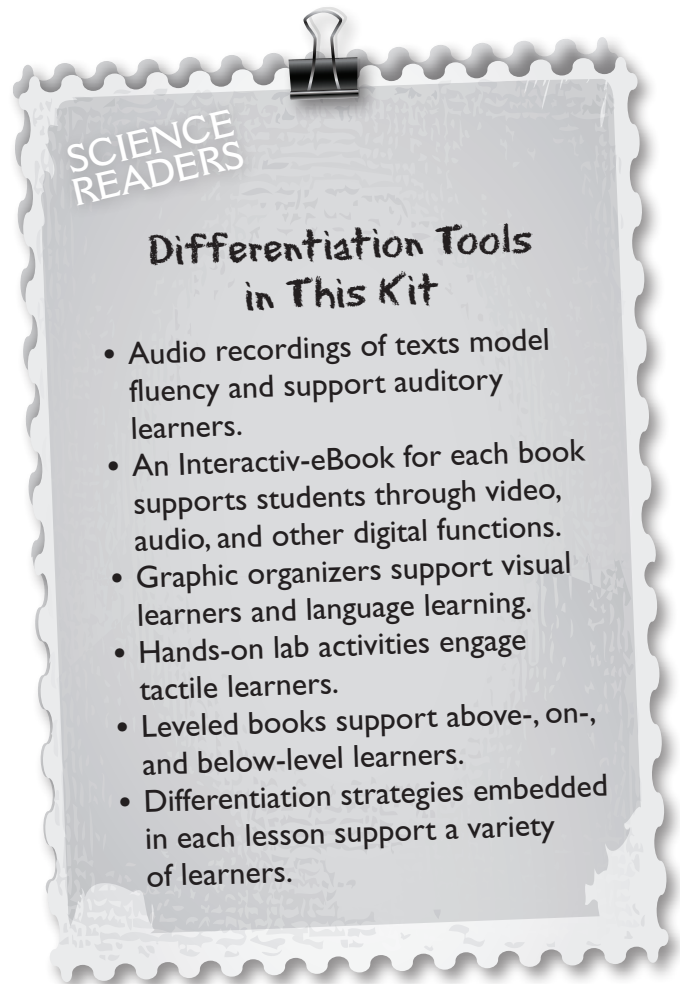


Differentiation

Students learn best when material is scaffolded appropriately. If a student is confronted with material that is too difficult, he or she may become frustrated and give up. However, if a student is not challenged enough, he or she may become bored and lose interest in the subject. Differentiation is not about making the work easy for students. Instead, it is about challenging all students appropriately.

The books in this kit are leveled to target and support different groups of learners. The chart on page 26 contains specific information on the reading levels of the books included in this kit. The lesson plans for these books have **differentiation strategies** to help **above-, on-, and below-level learners** comprehend the material. These strategies will ensure that students are actively engaged in learning while receiving the support or enrichment that they need.

Language learners have different instructional needs. Although these students may struggle with reading, that is not always the case. **Language learners** need different support depending on their level of proficiency. The lesson plans in this kit offer suggestions to differentiate instruction for the unique needs of **language learners**.



Assessment

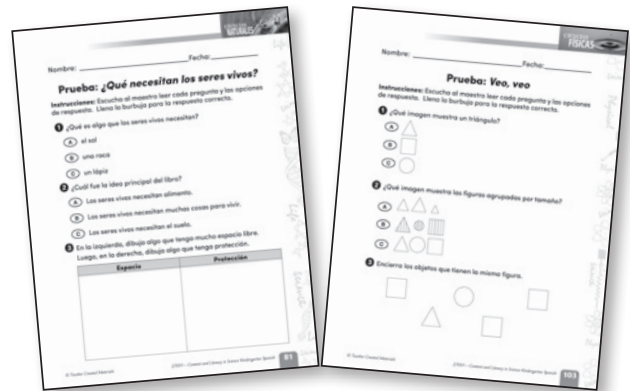
Assessment is an important part of this unit of study. The *Science Readers* series offers multiple assessment opportunities. You can gain insight into students' learning through multiple-choice quizzes, small-group observations, analysis of written assignments, and a culminating activity. These formal and informal assessments provide you with the data needed to make informed decisions about what to teach and how to teach it. This is the best way for you to know who is struggling with various concepts and how to address the difficulties that students are experiencing with the curriculum.

Multiple-Choice Quizzes—At the end of each book's lesson in this Teacher's Guide is a short quiz with multiple-choice questions. These short assessments may be used as open-book evaluations or as review quizzes in which students read and study the content prior to taking the quiz. Additionally, the quizzes may be used as a more formal assessment to provide evidence of learning.

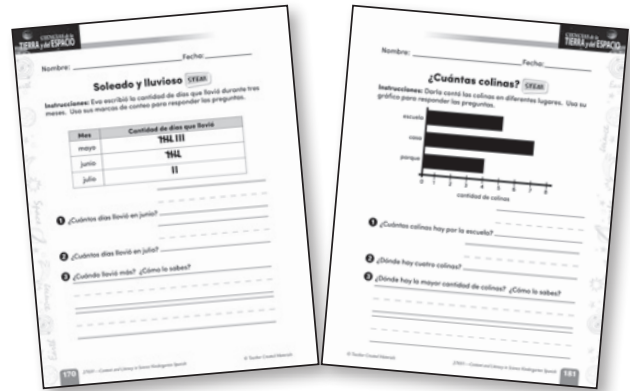
Data Analysis Activities—Each activity includes content-related data and text-dependent questions. These questions help students develop and strengthen critical thinking skills.

Culminating Activity—The culminating activity asks students to apply what they have learned throughout the units in an engaging and interactive way. Students use what they have learned to create new ideas in a real-life context.

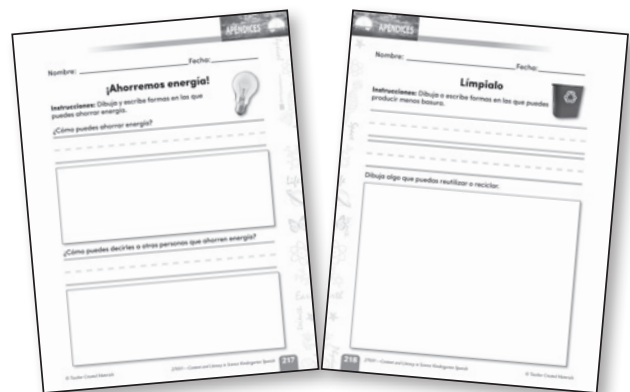
Progress Monitoring—There are several points throughout each lesson where useful evaluations can be made. These evaluations can be made based on group, paired, and individual discussions and activities.



Multiple-Choice Quizzes



Data Analysis Activity



Culminating Activity



Learning Objectives

Students will:

- identify the main idea of the book.
- complete sentences about what living things need.
- identify what living things need to survive.

Standards

- **Reading:** With prompting and support, identify the main topic and retell key details of a text.
- **Writing:** Use a combination of drawing, dictating, and writing to compose informative/explanatory texts in which they name what they are writing about and supply some information about the topic.
- **Content:** Use observations to describe patterns of what plants and animals (including humans) need to survive.
- **Language:** Communicate information, ideas, and concepts necessary for academic success in the content area of Science.

Lesson Timeline

Day 1

Task

Introductory and Lab Activities (page 73)

Summary of Student Learning Activities

Observe how plants fare with and without water.

Day 2

Task

Before Reading (page 74)

Summary of Student Learning Activities

Make predictions about the main idea.

Day 3

Task

During Reading (page 75)

Summary of Student Learning Activities

Identify the main idea of the book and complete sentences about living things.

Day 4

Task

After Reading (page 76)

Summary of Student Learning Activities

Identify what living things need to survive.

Day 5

Task

Activity from the Book (page 76) and **Assessments** (pages 81–82)

Summary of Student Learning Activities

Determine whether different plants have what they need and take the assessments.



Materials

- copies of the activity sheet *¿Qué necesita agua?* (page 77)
- goldfish (or picture of a goldfish)
- two potted plants (not a succulent or cactus)

Day 1

Observe how plants fare with and without water.

Introductory Activity

Engage

1. Present students with a plant, a goldfish (or a picture of a goldfish), and a person (yourself). Ask students to spend 20 seconds silently thinking about what these different living things need to stay alive.
2. Write *planta*, *pez*, and *persona* on the board. Underneath each heading, write student ideas for what each one needs to live. If there is something that they all need (such as water), write it in each column. Then, tell students that they are going to learn more about what living things need.

Lab Activity

Explore & Explain

1. Tell students that, as a class, they will be conducting an experiment. One plant will be watered every day, and another plant will not be watered at all.
2. Every day, have students take turns giving the wet plant approximately one tablespoon of water.
3. Once the dry plant is visibly wilted, bring both plants to the front of the room and ask students to discuss what happened in small groups.
4. Ask students questions about their thinking as they talk about the plants. Use the questions to guide students to the idea that without water, living things cannot survive:
 - *¿Qué planta se ve mejor?*
 - *¿Por qué creen que está en mejor condición?*
 - *¿Qué creen que ocurriría si regamos la planta que no se había regado?*
 - *¿Qué han aprendido sobre lo que necesitan los seres vivos?*
5. Bring the class together and have volunteers from each group share their thoughts about the experiment. Write *con agua* and *sin agua* on the board. Under *con agua* invite students to guide you in drawing the plant that was watered every day. Under *sin agua*, ask students to help you draw the wilted plant. Add descriptive words the students use next to each drawing.
6. Lead a class discussion about living things. Explain to students that all living things need water. Help students identify examples of living things.
7. Distribute copies of the activity sheet *¿Qué necesita agua?* (page 77) to students. Read the directions aloud. Have students circle the pictures of things that need water.



Day 2

Make predictions about the main idea.

Materials

- books *¿Qué necesitan los seres vivos?*
- copies of the activity sheet *¿De qué tratará?* (page 78)
- half-sheets of paper

Vocabulary Word Bank

- espacio
- protección

Before Reading

Elaborate

1. Write the vocabulary words on the board. Explain the meaning of each word and provide examples.
2. Put students in small groups. Distribute half sheets of paper to each group. On one side, have students write the word *protección* and draw a picture that will help them remember its meaning. On the other side, have them write *espacio* and draw a picture to help them remember its meaning.
3. Invite students to show their pictures to the class. Have students keep their papers to reference during the unit.
4. Show the class the book *¿Qué necesitan los seres vivos?* Read the title aloud and describe the front cover. Flip through a few pages of the book and show students the pictures. Ask them to consider what the book might be about. Explain that this is the main idea. Tell them that the cover and pictures should give them clues.
5. Distribute copies of the activity sheet *¿De qué tratará?* (page 78) to students. Read the directions aloud. Ask students to share their predictions with you.
 - Have **below-level learners** and **language learners** dictate their labels to you. Write what they dictate and then have them trace over your words.
 - Challenge **above-level learners** to write their predictions as sentences.



Materials

- books *¿Qué necesitan los seres vivos?*
- copies of the activity sheet *Lo que necesitan* (page 79)

Day 3

Identify the main idea of the book and complete sentences about living things.

During Reading

Elaborate

1. Distribute the books *¿Qué necesitan los seres vivos?* to students. Read the book aloud as students follow along. Pause after each page spread to discuss the specific living things on the pages and answer any questions students may have.
2. Remind students of their predictions about the main idea from the Before Reading activity. Have students discuss whether their predictions were correct.
 - You may choose to display the Interactiv-eBook for a more digitally enhanced reading experience.
3. Have students read in pairs for the second reading. Instruct students to take turns reading pages with their partners.
 - For **below-level learners** and **language learners**, you may choose to play the audio recording as students follow along to serve as a model of fluent reading. This may be done in small groups or at a listening station. The recordings will help struggling readers practice fluency and aid in comprehension.
4. After students have finished reading, ask them what the book is mainly about. Guide students to understand that the main idea is that living things need many things to live. Help them list examples from the book that support this idea.
5. Distribute copies of the activity sheet *Lo que necesitan* (page 79) to students. Read the directions aloud. Have students use the words in the Word Bank to complete the sentences.
 - Have **below-level learners** and **language learners** use the beginning sounds of each word to determine which words match the pictures.
 - Have **above-level learners** write their own sentences about what living things need.



Days 4&5

Identify what living things need to survive. Determine whether different plants have what they need and take the assessments.

Materials

- books *¿Qué necesitan los seres vivos?*
- copies of the activity sheets *Necesidades en la naturaleza*, *Prueba: ¿Qué necesitan los seres vivos?*, and *¿Cuánta agua?* (pages 80–82)

After Reading

Elaborate & Evaluate

1. Read aloud the sentence frames below to help students review the vocabulary words. Instruct them to complete the sentence with the correct vocabulary word. You may wish to use vocabulary words from other units of study to extend the activity.

- Algunos animales tienen caparazones duros como _____.
- Los animales necesitan _____ para moverse.
- Algunos animales pueden cambiar de color como _____.
- Las plantas necesitan _____ para crecer.

2. Distribute the books *¿Qué necesitan los seres vivos?* and copies of the activity sheet *Necesidades en la naturaleza* (page 80) to students. Read the directions aloud. Model for students how to label an image by drawing a line toward it. Assist students as needed. Encourage them to use the book's text and pictures if they need help.

Activity from the Book

Read the prompt *¡Tu turno!* aloud from page 22 of the book *¿Qué necesitan los seres vivos?* Have students look at plants and decide whether or not they have everything they need.

1. A short posttest, *Prueba: ¿Qué necesitan los seres vivos?* (page 81), is provided to assess student learning from the book.
2. A data analysis activity, *¿Cuánta agua?* (page 82), is provided to assess students' understanding of how to analyze scientific data. Read the directions aloud. Point to the chart and read the labels beside each bar. Explain to students that the chart shows how much water the plant needed in different months. **STEM**
3. Read each question aloud. Provide time for students to complete the assessment. You may wish to have students dictate their answers to you as needed. **Note:** You may need to preteach the skill of reading bar graphs before giving this assessment
4. The Interactiv-eBook activities may be used as a form of assessment (optional).



Nombre: _____ Fecha: _____

¿Qué necesita agua?

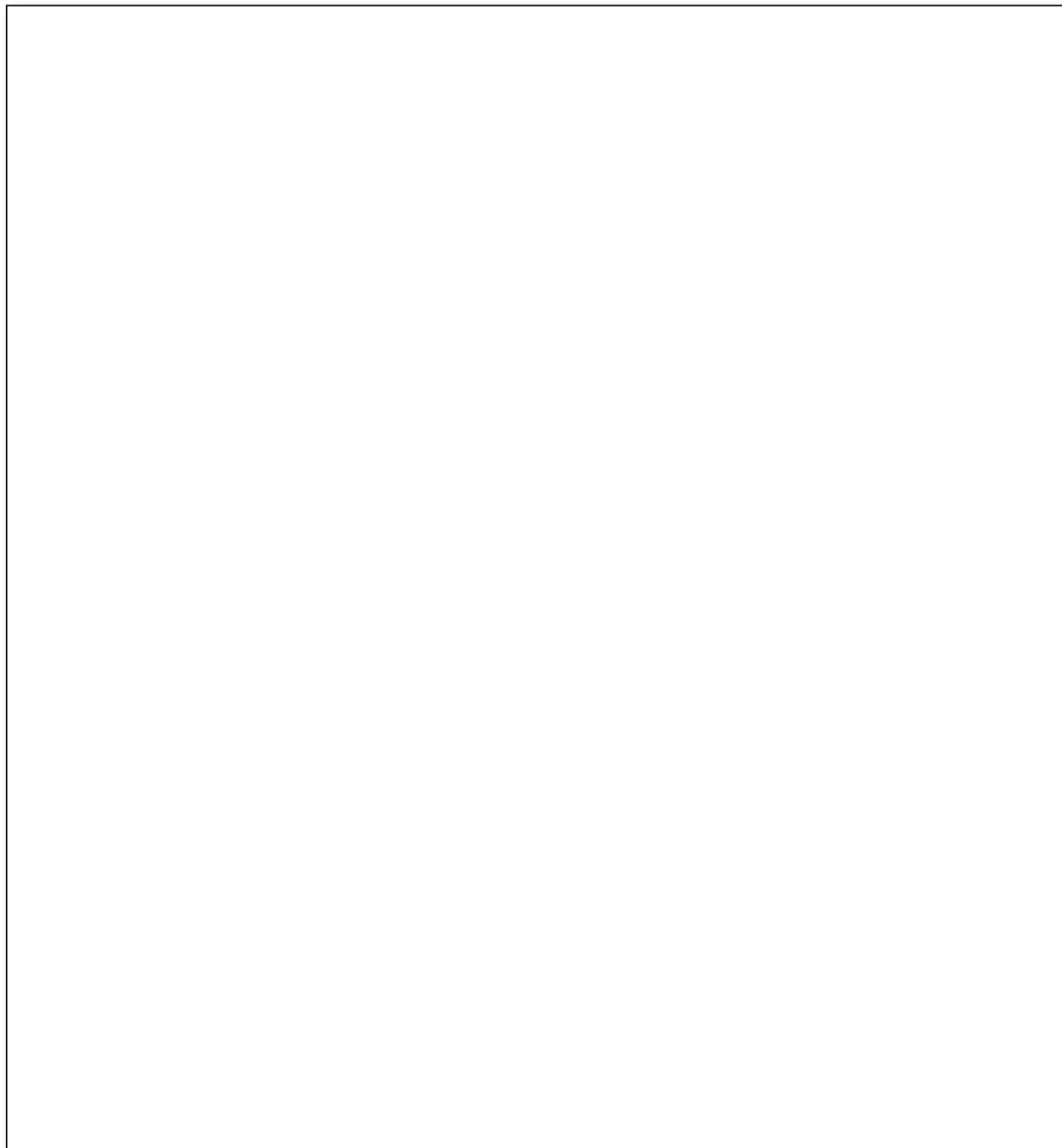
Instrucciones: Encierra las cosas que necesitan agua para vivir.



Nombre: _____ Fecha: _____

¿De qué tratará?

Instrucciones: ¿Sobre qué crees que tratará el libro? Haz un dibujo y rotúlalo.





Nombre: _____ Fecha: _____

Lo que necesitan

Instrucciones: Completa las siguientes oraciones. Usa las palabras del banco de palabras como ayuda.

hogares alimento protección agua

<p style="text-align: center;">1</p>  <p style="text-align: center;">Los seres vivos necesitan</p> <p>_____</p> <p>-----</p> <p>_____ .</p>	<p style="text-align: center;">2</p>  <p style="text-align: center;">Los seres vivos necesitan</p> <p>_____</p> <p>-----</p> <p>_____ .</p>
<p style="text-align: center;">3</p>  <p style="text-align: center;">Los seres vivos necesitan</p> <p>_____</p> <p>-----</p> <p>_____ .</p>	<p style="text-align: center;">4</p>  <p style="text-align: center;">Los seres vivos necesitan</p> <p>_____</p> <p>-----</p> <p>_____ .</p>



Nombre: _____ Fecha: _____

Necesidades en la naturaleza

Instrucciones: Lee las palabras de abajo. Traza una línea desde cada palabra hasta la imagen que le corresponde.



¡Haz más! ¿Puedes ver más cosas que los seres vivos necesitan?
Rotúlalas en la imagen.



Nombre: _____ Fecha: _____

Prueba: ¿Qué necesitan los seres vivos?

Instrucciones: Escucha al maestro leer cada pregunta y las opciones de respuesta. Llena la burbuja para la respuesta correcta.

1 ¿Qué es algo que los seres vivos necesitan?

- A el sol
- B una roca
- C un lápiz

2 ¿Cuál fue la idea principal del libro?

- A Los seres vivos necesitan alimento.
- B Los seres vivos necesitan muchas cosas para vivir.
- C Los seres vivos necesitan el suelo.

3 En la izquierda, dibuja algo que tenga mucho espacio libre. Luego, en la derecha, dibuja algo que tenga protección.

Espacio	Protección



Nombre: _____ Fecha: _____

¿Cuánta agua? STEM

Instrucciones: Sandra cuida sus flores. Las riega cuando están secas. Anotó la cantidad de agua que les puso en abril y en mayo. Usa su gráfico para responder las preguntas.



1 ¿Cuántos galones de agua necesitaron las plantas en abril?

_____ galones

2 ¿Cuántos galones de agua necesitaron las plantas en mayo?

_____ galones

3 ¿Cuándo necesitaron más agua las plantas? ¿Cómo lo sabes?

Life *science* *Life* *Life* *Life*

¿Qué necesitan los seres vivos?



Elizabeth Austen



Los seres vivos
necesitan luz.



**Los seres vivos
necesitan alimento.**



Los seres vivos
necesitan agua.





Los seres vivos
necesitan aire.



Los seres vivos
necesitan **espacio**.



Los seres vivos
necesitan hogares.



Los seres vivos
necesitan **protección.**



**Los seres vivos
necesitan otros
seres vivos.**

¡Hagamos ciencia!

¿Qué necesitan los seres vivos?
¡Intenta esto!

Qué conseguir

- ❑ 2 flores en maceta
- ❑ 2 tazas de papel
- ❑ agua
- ❑ tierra



Qué hacer

- 1 Planta las flores en las tazas. Colócalas en un lugar soleado.



- 2 Riega una taza cada día. No riegues la otra taza.



- 3 Después de unos días, ¿qué ves? ¿Hay alguna diferencia entre las flores?



Glosario

espacio: un área vacía

protección: una cosa que mantiene algo seguro



Índice

agua, 6–7

aire, 8–9

alimento, 4–5

espacio, 10–11

hogares, 12–13

luz, 2–3

protección, 14–15



¡Tu turno!



Observa algunas plantas.
¿Qué plantas tienen todo
lo que necesitan? ¿Qué
plantas no? ¿Cómo lo
sabes?

