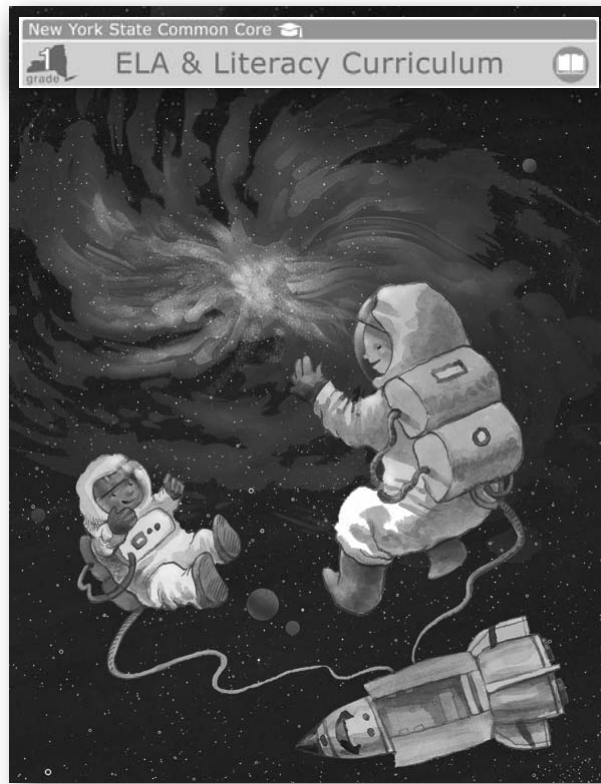


Astronomy

Tell It Again!™ Read-Aloud Anthology





Astronomy

Tell It Again![™] Read-Aloud Anthology

Listening & Learning[™] Strand

GRADE 1

Core Knowledge Language Arts[®]
New York Edition



Core Knowledge[®]

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Alignment Chart for Astronomy

The following chart contains core content objectives addressed in this domain. It also demonstrates alignment between the Common Core State Standards and corresponding Core Knowledge Language Arts (CKLA) goals.

Alignment Chart for Astronomy	Lesson								
	1	2	3	4	5	6	7	8	9
Core Content Objectives									
Recognize the sun in the sky	✓								
Explain that the sun, moon, and stars are located in outer space	✓								
Explain that the sun is a source of energy, light, and heat	✓							✓	
Classify the sun as a star	✓		✓					✓	
Identify Earth as a planet and our home		✓						✓	
Identify the earth's rotation, or spin, as the cause of day and night		✓						✓	✓
Explain that other parts of the world experience nighttime while we have daytime		✓							
Explain sunrise and sunset		✓							
Explain that Earth orbits the sun		✓		✓				✓	✓
Describe stars as large, although they appear small in the night sky			✓						
Describe stars as hot, distant, and made of gas			✓						
Explain that astronomers study the moon and stars using telescopes			✓	✓	✓	✓	✓		
Describe how people sometimes tell stories about the moon and stars			✓	✓	✓	✓			
Explain what a constellation is				✓					
Identify the Big Dipper and the North Star				✓					
Identify the four phases of the moon—new, crescent, half, full					✓				
Explain that the moon orbits the earth					✓		✓		

Alignment Chart for Astronomy

Lesson

	1	2	3	4	5	6	7	8	9
Explain that astronauts travel to outer space						✓	✓		
Describe the landing on the moon by American astronauts							✓		
Explain the importance of the first trip to the moon							✓		
Explain that our solar system includes the sun and the planets that orbit around it								✓	✓
Indicate that there are eight planets in our solar system (Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, and Neptune)								✓	✓
Classify Pluto as a dwarf planet									✓

Reading Standards for Literature: Grade 1

Craft and Structure

STD RL.1.5	Explain major differences between books that tell stories and books that give information, drawing on a wide reading of a range of text types.									
CKLA Goal(s)	Listen to, understand, and recognize a variety of texts, including fictional stories, fairy tales, fables, historical narratives, informational text, nursery rhymes, and poems, describing the differences between books that tell stories and books that give information			✓						

Reading Standards for Informational Text: Grade 1

Key Ideas and Details

STD RI.1.1	Ask and answer questions about key details in a text.									
CKLA Goal(s)	Ask and answer questions (e.g., <i>who</i> , <i>what</i> , <i>where</i> , <i>when</i>), orally or in writing, requiring literal recall and understanding of the details and/or facts of a nonfiction/informational read-aloud					✓				
	Answer questions that require making interpretations, judgments, or giving opinions about what is heard in a nonfiction/informational read-aloud, including answering <i>why</i> questions that require recognizing cause/effect relationships						✓			

Alignment Chart for Astronomy

Lesson

		1	2	3	4	5	6	7	8	9
STD RI.1.3	Describe the connection between two individuals, events, ideas, or pieces of information in a text.									
CKLA Goal(s)	Describe the connection between two individuals, events, ideas, or pieces of information in a nonfiction/informational read-aloud			✓		✓	✓	✓	✓	✓
Craft and Structure										
STD RI.1.4	Ask and answer questions to help determine or clarify the meaning of words and phrases in a text.									
CKLA Goal(s)	Ask and answer questions about unknown words and phrases in nonfiction/informational read-alouds and discussions	✓								
Integration of Knowledge and Ideas										
STD RI.1.7	Use the illustrations and details in a text to describe its key ideas.									
CKLA Goal(s)	Use illustrations and details in a nonfiction/informational read-aloud to describe its key ideas					✓			✓	
STD RI.1.9	Identify basic similarities in and differences between two texts on the same topic (e.g., in illustrations, descriptions, or procedures).									
CKLA Goal(s)	Compare and contrast (orally or in writing) similarities and differences within a single nonfiction/informational read-aloud or between two or more nonfiction/informational read-alouds								✓	
Range of Reading and Level of Text Complexity										
STD RI.1.10	With prompting and support, read informational texts appropriately complex for Grade 1.									
CKLA Goal(s)	Listen to and demonstrate understanding of nonfiction/informational read-alouds of appropriate complexity for Grades 1–3	✓								
Writing Standards: Grade 1										
Research to Build and Present Knowledge										
STD W.1.8	With guidance and support from adults, recall information from experiences or gather information from provided sources to answer a question.									
CKLA Goal(s)	Make personal connections (orally or in writing) to events or experiences in a fiction or nonfiction/informational read-aloud, and/or make connections among several read-alouds							✓		
	With assistance, categorize and organize facts and information within a given domain to answer questions	✓		✓				✓	✓	✓

Alignment Chart for Astronomy

Lesson

		1	2	3	4	5	6	7	8	9
Speaking and Listening Standards: Grade 1										
Comprehension and Collaboration										
STD SL.1.1	Participate in collaborative conversations with diverse partners about Grade 1 topics and texts with peers and adults in small and large groups.									
STD SL.1.1a	Follow agreed-upon rules for discussions (e.g., listening to others with care, speaking one at a time about the topics and texts under discussion).									
CKLA Goal(s)	Use agreed-upon rules for group discussion, e.g., look at and listen to the speaker, raise hand to speak, take turns, say “excuse me” or “please,” etc.									
STD SL.1.1b	Build on others’ talk in conversations by responding to the comments of others through multiple exchanges.									
CKLA Goal(s)	Carry on and participate in a conversation over at least six turns, staying on topic, initiating comments or responding to a partner’s comments, with either an adult or another child of the same age									
STD SL.1.1c	Ask questions to clear up any confusion about the topics and texts under discussion.									
CKLA Goal(s)	Ask questions to clarify information about the topic in a fiction or nonfiction/ informational read-aloud									
STD SL.1.2	Ask and answer questions about key details in a text read aloud or information presented orally or through other media.									
CKLA Goal(s)	Ask and answer questions (e.g., <i>who, what, where, when</i>), orally or in writing, requiring literal recall and understanding of the details, and/or facts of a fiction or nonfiction/informational read-aloud									
STD SL.1.3	Ask and answer questions about what a speaker says in order to gather additional information or clarify something that is not understood.									
CKLA Goal(s)	Ask questions to clarify directions, exercises, classroom routines, and/or what a speaker says about a topic									
Presentation of Knowledge and Ideas										
STD SL.1.4	Describe people, places, things, and events with relevant details, expressing ideas and feelings clearly.									
CKLA Goal(s)	Describe people, places, things, and events with relevant details, expressing ideas and feelings clearly									


Alignment Chart for Astronomy

Lesson

		1	2	3	4	5	6	7	8	9
STD SL.1.5	Add drawings or other visual displays to descriptions when appropriate to clarify ideas, thoughts, and feelings.									
CKLA Goal(s)	Add drawings or other visual displays to oral or written descriptions when appropriate to clarify ideas, thoughts, and feelings	✓		✓	✓		✓	✓		
STD SL.1.6	Produce complete sentences when appropriate to task and situation.									
CKLA Goal(s)	Produce complete sentences when appropriate to task and situation						✓			
Language Standards: Grade 1										
Vocabulary Acquisition and Use										
STD L.1.5	With guidance and support from adults, demonstrate understanding of word relationships and nuances in word meanings.									
STD L.1.5a	Sort words into categories (e.g., colors, clothing) to gain a sense of the concepts the categories represent.									
CKLA Goal(s)	Sort words into categories (e.g., colors, clothing) to gain a sense of the concepts the categories represent	✓								
	Provide examples of common synonyms and antonyms			✓	✓				✓	
STD L.1.5c	Identify real-life connections between words and their use (e.g., note places at home that are cozy).									
CKLA Goal(s)	Identify real-life connections between words and their use (e.g., note places at home that are cozy)						✓			
STD L.1.5d	Distinguish shades of meaning among verbs differing in manner (e.g., <i>look, peek, glance, stare, glare, scowl</i>) and adjectives differing in intensity (e.g., <i>large, gigantic</i>) by defining or choosing them or by acting out the meanings.									
CKLA Goal(s)	Distinguish shades of meaning among verbs differing in manner (e.g., <i>look, peek, glance, stare, glare, scowl</i>) and adjectives differing in intensity (e.g., <i>large, gigantic</i>) by defining or choosing them or by acting out the meanings									
STD L.1.6	Use words and phrases acquired through conversations, reading and being read to, and responding to texts, including using frequently occurring conjunctions to signal simple relationships (e.g., <i>because</i>).									
CKLA Goal(s)	Learn the meaning of common sayings and phrases		✓		✓					

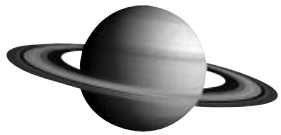
Alignment Chart for Astronomy

Lesson

	1	2	3	4	5	6	7	8	9
Additional CKLA Goals									
Listen to a variety of texts, including informational text									
Identify new meanings for familiar words and apply them accurately	✓							✓	
Prior to listening to an informational read-aloud, identify what they know about a given topic		✓	✓	✓	✓			✓	✓
While listening to an informational read-aloud, orally predict what will happen next in the read-aloud based on the text heard thus far, and then compare the actual outcome to the prediction						✓			
Use possessive pronouns orally							✓		



These goals are addressed in all lessons in this domain. Rather than repeat these goals as lesson objectives throughout the domain, they are designated here as frequently occurring goals.



Introduction to Astronomy

This introduction includes the necessary background information to be used in teaching the *Astronomy* domain. *The Tell It Again! Read-Aloud Anthology for Astronomy* contains nine daily lessons, each of which is composed of two distinct parts, so that the lesson may be divided into smaller chunks of time and presented at different intervals during the day. Each entire lesson will require a total of sixty minutes.

This domain includes a Pausing Point following Lesson 5. At the end of the domain, a Domain Review, a Domain Assessment, and Culminating Activities are included to allow time to review, reinforce, assess, and remediate content knowledge. **You should spend no more than thirteen days total on this domain.**

Week One									
Day 1	#	Day 2	#	Day 3	#	Day 4	#	Day 5	# ⑩
Lesson 1A: "Introduction to the Sun and Space" (40 min.)		Lesson 2A: "The Earth and the Sun" (40 min.)		Lesson 3A: "Stars" (40 min.)		Lesson 4A: "Stargazing and Constellations" (40 min.)		Lesson 5A: "The Moon" (40 min.)	
Lesson 1B: Extensions (20 min.)		Lesson 2B: Extensions (20 min.)		Lesson 3B: Extensions (20 min.)		Lesson 4B: Extensions (20 min.)		Lesson 5B: Extensions (20 min.)	
60 min.		60 min.		60 min.		60 min.		60 min.	

Week Two								
Day 6	⑩	Day 7	#	Day 8	#	Day 9	#	Day 10
Pausing Point (40 min.)		Lesson 6A: "History of Space Exploration and Astronauts" (40 min.)		Lesson 7A: "Exploration of the Moon" (40 min.)		Lesson 8A: "The Solar System, Part I" (40 min.)		Lesson 9A: "The Solar System, Part II" (40 min.)
Pausing Point (20 min.)		Lesson 6B: Extensions (20 min.)		Lesson 7B: Extensions (20 min.)		Lesson 8B: Extensions (20 min.)		Lesson 9B: Extensions (20 min.)
60 min.		60 min.		60 min.		60 min.		60 min.

Week Three		
Day 11	Day 12	⑩ Day 13
Domain Review (40 min.)	Domain Assessment (40 min.)	Culminating Activities (40 min.)
Domain Review (20 min.)	Domain Assessment (20 min.)	Culminating Activities (20 min.)
60 min.	60 min.	60 min.

⑩ Lessons include Student Performance Task Assessments

Lessons require advance preparation and/or additional materials; please plan ahead

Domain Components

Along with this Anthology, you will need:

- *Tell It Again! Media Disk* or the *Tell It Again! Flip Book for Astronomy*
- *Tell It Again! Image Cards for Astronomy*
- *Tell It Again! Supplemental Guide for Astronomy*
- *Tell It Again! Multiple Meaning Word Posters for Astronomy*

Recommended Resource:

- *Core Knowledge Teacher Handbook (Grade 1)*, edited by E.D. Hirsch, Jr. and Souzanne A. Wright (Core Knowledge Foundation, 2004) ISBN: 978-1890517700

Why Astronomy Is Important

In this domain, students will be introduced to the solar system—our home in space. They will learn that Earth, the planet on which we live, is just one of many different celestial bodies within the solar system. They will learn how the sun, the stars, the moon, and the other planets relate to the earth (given its position in space). In the early read-alouds, students will learn that the sun is a giant star as well as a source of light, heat, and energy for the earth. They will also learn about the earth's orbit around the sun, and how the earth's own rotation on its axis leads to the phenomenon of day and night.

Part of this domain is focused on the history of space exploration and the missions to the moon. Students will learn about NASA, the Space Race, the Apollo missions, and what it takes to be an astronaut. Students will get a good introduction to the basics of astronomy in this domain, and this foundation will be built upon when students study the solar system in much greater depth in the third grade.

What Students Have Already Learned in Core Knowledge Language Arts During Kindergarten

The following Kindergarten domains, and the specific core content that was targeted in those domains, are particularly relevant to the read-alouds students will hear in *Astronomy*. This background knowledge will greatly enhance your students' understanding of the read-alouds they are about to enjoy:

Seasons and Weather

- Identify the following units of time and their relationship to one another: day, week, month, year
- Characterize the North and South Poles as always cold in temperature, the middle section of the earth as usually warm, and the United States as having four seasons
- Describe any unique seasonal differences that are characteristic of their own locality (change of color and dropping of leaves in autumn; snow or ice in winter; increased rain and/or flooding in spring; etc.)
- Identify a thermometer as an instrument used to measure temperature, and describe how it works: i.e., as the temperature becomes warmer, the liquid in the thermometer rises; as the temperature becomes cooler, the liquid in the thermometer descends

Taking Care of the Earth

- Explain that Earth is composed of land, water, and air
- Explain that humans, plants, and animals depend on Earth's land, water, and air to live
- Explain that natural resources are things found in nature that are valuable and of great importance to people
- Explain that land, air, and water all suffer from different types of pollution, and most types of pollution are caused by human activities
- Compare and contrast freshwater, salt water, and wastewater
- Explain that many living things, including humans, need fresh water to survive, and that there is a limited supply of freshwater on Earth

Core Vocabulary for Astronomy

The following list contains all of the core vocabulary words in *Astronomy* in the forms in which they appear in the read-alouds or, in some instances, in the “Introducing the Read-Aloud” section at the beginning of the lesson. Boldfaced words in the list have an associated Word Work activity. The inclusion of the words on this list does not mean that students are immediately expected to be able to use all of these words on their own. However, through repeated exposure throughout the lessons, they should acquire a good understanding of most of these words and begin to use some of them in conversation. You will find a horizontal word wall activity in Lesson 4 for the academic vocabulary word *major*. We recommend that you take students through this activity for the remaining academic vocabulary, which is assessed in Part I (items #11-15) of the Domain Assessment. In this domain, the additional academic vocabulary words are: *ancient*, *appearance*, *determined*, and *categorize*.

Lesson 1

atmosphere
gas
rays
shadow
surface

Lesson 2

gravity
horizon
orbit
planet
rotates

Lesson 3

dusk
meteor
stars
telescopes
universe

Lesson 4

advances
ancient
celestial bodies
constellations
myths

Lesson 5

appearance
counterclockwise
craters
crescent
reflecting

Lesson 6

astronaut
launch
rockets
spacecraft
technology

Lesson 7

determined
disaster
historic
missions
nervously

Lesson 8

abundant
accomplish
inner
solar
unique

Lesson 9

categorize
debris
outer
probes
violent

Student Performance Task Assessments

In the *Tell It Again! Read-Aloud Anthology for Astronomy*, there are numerous opportunities to assess students' learning. These assessment opportunities range from informal observations, such as *Think Pair Share* and some Extension activities, to more formal written assessments. These Student Performance Task Assessments (SPTA) are identified in the *Tell It Again! Read-Aloud Anthology* with this icon: ⑩. There is also an end-of-domain summative assessment. Use the Tens Conversion Chart located in the Appendix to convert a raw score on each SPTA into a Tens score. On the same page, you will also find the rubric for recording observational Tens Scores.

Above and Beyond

In the *Tell It Again! Read-Aloud Anthology for Astronomy*, there are numerous opportunities in the lessons and the Pausing Point to challenge students who are ready to attempt activities that are above grade level. These activities are labeled “Above and Beyond” and are identified with this icon: ↗.

Supplemental Guide

Accompanying the *Tell It Again! Read-Aloud Anthology* is a *Supplemental Guide* designed specifically to assist educators who serve students with limited English oral language skills or students with limited home literary experience, which may include English Language Learners (ELLs) and children with special needs. Teachers whose students would benefit from enhanced oral language practice may opt to use the *Supplemental Guide* as their primary guide in the Listening & Learning Strand. Teachers may also choose to begin a domain by using the *Supplemental Guide* as their primary guide before transitioning to the *Tell It Again! Read-Aloud Anthology*, or may choose individual activities from the *Supplemental Guide* to augment the content covered in the *Tell It Again! Read-Aloud Anthology*.

The *Supplemental Guide* activities that may be particularly relevant to any classroom are the Multiple Meaning Word Activities and accompanying Multiple Meaning Word Posters, which help students

determine and clarify different meanings of words; Syntactic Awareness Activities, which call students' attention to sentence structure, word order, and grammar; and Vocabulary Instructional Activities, which place importance on building students' general academic, or Tier 2, vocabulary. These activities afford all students additional opportunities to acquire a richer understanding of the English language. Several of these activities have been included as Extensions in the *Tell It Again! Read-Aloud Anthology*. In addition, several words in the *Tell It Again! Read-Aloud Anthology* are underlined, indicating that they are multiple-meaning words. The accompanying sidebars explain some of the more common alternate meanings of these words. *Supplemental Guide* activities included in the *Tell It Again! Read-Aloud Anthology* are identified with this icon: ↔.

Recommended Resources for Astronomy

The *Tell It Again! Read-Aloud Anthology* includes a number of opportunities in Extensions, the Pausing Point, and the Domain Review for teachers to select trade books from this list to reinforce domain concepts through the use of authentic literature. In addition, teachers should consider other times throughout the day when they might infuse authentic domain-related literature. If you recommend that families read aloud with their child each night, you may wish to suggest that they choose titles from this trade book list to reinforce the domain concepts. You might also consider creating a classroom lending library, allowing students to borrow domain-related books to read at home with their families.

1. *Astronomy* (DK Eyewitness Books), by Kristin Lippincott (DK Children, 2008) ISBN 978-0756637675
2. *Exploring the Solar System*, by Mary Kay Carson (Chicago Review Press, 2008) ISBN 978-1556527159
3. *Find the Constellations*, by H. A. Rey (Houghton Mifflin Books for Children, 2008) ISBN 978-0547131788
4. *Find Out About Astronomy*, by Robin Kerrod (Armadillo, 2012) ISBN 978-1843228684
5. *The Magic School Bus: Lost in the Solar System*, by Joanna Cole and illustrated by Bruce Degen (Scholastic Inc., 1992) ISBN 978-0590414296

6. *Midnight on the Moon (Magic Tree House, No. 8)*, by Mary Pope Osborne and Sal Murdocca (Random House Books for Young Readers, 1996) ISBN 978-0679863748
7. *The Moon Seems to Change*, by Franklyn M. Branley and illustrated by Barbara and Ed Emberley (HarperCollins, 1987) ISBN 978-0064450652
8. *National Geographic Readers: Planets*, by Elizabeth Carney (National Geographic Children's Books, 2012) ISBN 978-1426310362
9. *National Geographic Little Kids First Big Book of Space*, by Catherine D. Hughes and illustrated by David A. Aguilar (National Geographic Children's Books, 2012) ISBN 978-1426310140
10. *Once Upon a Starry Night: A Book of Constellations*, by Jacqueline Mitton and illustrated by Christina Balit (National Geographic Children's Books, 2009) ISBN 978-1426303913
(Note: This book's beautiful illustrations can help students imagine what the constellations look like when they look up at the stars. The myths/text, however, is not recommended for first grade.)
11. *Our Solar System*, by Seymour Simon (Collins, 2007) ISBN 978-0061140082
12. *Planets: A Solar System Stickerbook*, by Ellen Hasbrouck and illustrated by Scott McDougall (Little Simon, 2001) ISBN 978-0689844140
13. *Stargazers*, by Gail Gibbons (Holiday House, 1999) ISBN 978-0823415076
14. *Starry Sky*, by Kate Hayden (DK Children, 2006) ISBN 978-0756619596
15. *Sun Up, Sun Down*, by Gail Gibbons (Voyager Books, 1987) ISBN 978-0152827823
16. *What Makes Day and Night*, by Franklyn M. Branley and illustrated by Arthur Dorros (HarperCollins, 1986) ISBN 978-0064450508

17. *Wynken, Blynken, and Nod*, by Eugene W. Field and illustrated by Giselle Potter (Schwartz & Wade, 2008) ISBN 978-0375841965

Note: Please remember to tell students that not very long ago, students in school were taught that there were nine planets in the solar system, including Pluto. However, in 2006, astronomers decided to categorize Pluto as a dwarf planet, so there are now eight major planets. If you choose additional books to read aloud, be sure to include the phrase *dwarf planet* when referring to Pluto. Remember also that there are still many excellent astronomy books in print that classify Pluto as a planet, but are otherwise informative trade books.

Websites and Other Resources

Student Resources

1. **Interactive Earth Rotation**
http://www.bbc.co.uk/schools/scienceclips/ages/9_10/earth_sun_moon.shtml
2. **NASA Kids' Club**
<http://www.nasa.gov/audience/forkids/kidsclub/flash/index.html>
3. **National Geographic Space Activities and Photos**
http://kids.nationalgeographic.com/kids/photos/space-shuttles/#!/columbia-launch-gpn-2000-000756_14481_600x450.jpg
4. **PBS Game on Outer Space**
<http://pbskids.org/martha/games/socksin-space/index.html>

Teacher Resources

5. **American Museum of Natural History Resources on Space**
<http://www.amnh.org/content/search?SearchText=space&x=0&y=0>
6. **Photographs from the Hubble Space Telescope**
<http://hubblesite.org/gallery/album/entire/npp/all/>