UNIT 1: Patterns of Change in the Night Sky

Unit Summary:
In this unit of study, students observe, describe, and predict patterns in the movement of objects in the sky.

Concepts & Vocabulary:
Key vocabulary may include but are not limited to: Sun, Moon (not phases), Stars, Patterns, Night and Day, Sky, Amount of daylight, Time of the year (e.g. winter, summer), Sunrise and sunset

Stage 1 – Desired Results (Also see Disciplinary Core Ideas below)

Performance Expectations: (PE) (Established Goals / Content Standards)

- 1-ESS1-1: Use observations of the sun, moon, and stars to describe patterns that can be predicted.
  - Clarification Statement: Examples of patterns could include that the sun and moon appear to rise in one part of the sky, move across the sky, and set; and stars other than our sun are visible at night but not during the day.
  - Assessment Boundary: Assessment of star patterns is limited to stars being seen at night and not during the day

- 1-ESS1-2: Make observations at different times of year to relate the amount of daylight to the time of year.
  - Clarification Statement: Emphasis is on relative comparisons of the amount of daylight in the winter to the amount in the spring or fall.
  - Assessment Boundary: Assessment is limited to relative amounts of daylight, not quantifying the hours or time of daylight.

Science & Engineering Practices	Disciplinary Core Ideas	Crosscutting Concepts
Planning and Carrying Out Investigations ● Make observations (firsthand or from media) to collect data that can be used to make comparisons. (1-ESS1-2) **Analyzing and Interpreting Data** ● Use observations (firsthand or from media) to describe patterns in the natural world in order to answer scientific questions. (1-ESS1-1)	**ESS1.A: The Universe and its Stars** ● Patterns of the motion of the sun, moon, and stars in the sky can be observed, described, and predicted. (1-ESS1-1) **ESS1.B: Earth and the Solar System** ● Seasonal patterns of sunrise and sunset can be observed, described, and predicted. (1-ESS1-2)	**Patterns** ● Patterns in the natural world can be observed, used to describe phenomena, and used as evidence. (1-ESS1-1),(1-ESS1-2) - - - - - - - - -- - - - - - - - - - - - - - - - - - **Connections to Nature of Science** **Scientific Knowledge Assumes an Order and Consistency in Natural Systems** ● Science assumes natural events happen today as they happened in the past. (1-ESS1-1) ● Many events are repeated. (1-ESS1-1)

Enduring Understandings (1-3 max) Students will understand that:	**Essential Questions** (1-2 EQ per EU)

• Patterns of the sun, moon, and stars can be observed, described and predicted. • The amount of daylight changes depending on the time of year. Possible Misunderstanding(s): • How the moon can be in the day and night sky. • That many different patterns are happening at the same time.	• How does the sun, moon, and Earth work together to make day and night? • What are star patterns and how do we see them? • Why does the amount of daylight change with the seasons?

Stage 2 – Model Assessments	

Summative Performance Task(s):
1-ESS1-1:
• The teacher provides an anchor chart displaying the patterns of the moon. _
  ○ Students will complete the chart and draw the next 2 phases of the moon.
2-ESS1-2
• The teacher provides an anchor chart displaying the patterns of light at different times of the year.
  ○ What patterns do you notice about your day?
  ○ Next spring will it be light or dark when you wake up?
 	
Extension: Teacher will create another chart displaying the patterns of light at different times of the year in the southern hemisphere. Students look for new patterns and make new predictions?
 	
Audience:
• Peer, self-reflection, teacher
	Formative Evidence:
	• Slide Diagnostic Questions
	• Oral Comprehension Checks
	• Teacher Observation
	• Class Discussion/Anecdotal Notes

Stage 3 – Learning Plan Resources and Activities
Suggested Resources for Planning: Phases of the Moon Song Grade 1 Mystery Science Planning Guide & Resources

Learning Activities:

1-ESS1-1:

- Observation Journal - Students will record observations of the moon, sun, and stars throughout the unit. They will identify patterns and draw conclusions based on their observations for each section.
- Class Moon Calendar - students bring home the calendar to draw in the moon, make observations, etc.
- The Sun, Earth, Moon, and Star Lesson Slides
    - This includes:
        - KLEWS Chart (ongoing graphic organizer)
        - Daytime Sky Observations
        - Class Demonstrations
        - Diagnostic Assessment Questions
        - Moon Pattern Sequence and Ordering
        - Oreo Investigation
        - Nighttime Observations (HW)
- Mystery 1: Could a statue's shadow move?
- Mystery 3: How can the sun help you if you're lost?
- Mystery 5: Why do the stars come out at night?

2-ESS1-2:

- Mystery 4 Read Along: Why do you have to go to bed early in the summer

Phenomena Videos:

- Seeing the Moon During the Day
- Total Solar Eclipse
- Dubai 24 Hour Timelapse

Suggested Methods:

- Phenomena based learning
- Problem Based Learning (PBL)
- Inquiry-Based Learning
- Case studies
- Engaging in Argument w/ evidence

UNIT 2: Characteristics of Living Things

Unit Summary:
In this unit of study, students develop an understanding of how plants and animals use their external parts to help them survive, grow, and meet their needs, as well as how the behaviors of parents and offspring help offspring survive. The understanding that young plants and animals are like, but not exactly the same as, their parents is developed.

Concepts & Vocabulary:
Key vocabulary may include but are not limited to: Plants and Animals, Parent structures, Offspring structures (alike but not exactly alike), Patterns, Offspring behavior (e.g. crying, cheeping, vocalizations), Parent response (e.g. feeding, comforting, protecting the offspring), Survive

Stage 1 – Desired Results

Performance Expectations: (PE) (Established Goals / Content Standards)

- 1-LS1-2: Read texts and use media to determine patterns in the behavior of parents and offspring that help offspring survive.
  - Clarification Statement: Examples of patterns of behaviors could include the signals that offspring make (such as crying, chirping, and other vocalizations) and the responses of the parents (such as feeding, comforting, and protecting the offspring).

- 1-LS3-1: Make observations to construct an evidence-based account that young plants and animals are like, but not exactly like, their parents.
  - [Clarification Statement: Examples of patterns could include features plants or animals share. Examples of observations could include leaves from the same kind of plant are the same shape but can differ in size; and, a particular breed of dog looks like its parents but is not exactly the same.]
  - [*Assessment Boundary: Assessment does not include inheritance or animals that undergo metamorphosis or hybrids.*]

Enduring Understandings (1-3 max) Students will understand that:	**Essential Questions** (1-2 EQ per EU)
● All living things go through a life cycle and adopt characteristics from their parents to help them survive. ● Young animals and plants are very much, but not exactly like their parents. Possible Misunderstanding(s): ● Life cycle stages of the same animal can look different.	● How do organisms grow and develop? ● What behavior patterns can be observed among parents that help offspring survive? ● How are offspring alike and different from their parents?

Science & Engineering Practices	Disciplinary Core Ideas	Crosscutting Concepts
Analyzing and Interpreting Data ● Analyze and interpret data to make sense of phenomena using logical reasoning. (3-LS3-1)	**LS3.A: Inheritance of Traits** ● Many characteristics of organisms are inherited from their	**Patterns** ● Similarities and differences in patterns can be used to sort and

Obtaining, Evaluating, and Communicating Information ● Read grade-appropriate texts and use media to obtain scientific information to determine patterns in the natural world. (1-LS1-2)	parents. (3-LS3-1) **LS1.B: Growth and Development of Organisms** ● Adult plants and animals can have young. In many kinds of animals, parents and the offspring themselves engage in behaviors that help the offspring to survive. (1-LS1-2)	classify natural phenomena. (3-LS3-1) ● Patterns in the natural and human designed world can be observed, used to describe phenomena, and used as evidence. (1-LS1-2) - **Connections to Nature of Science** **Scientific Knowledge is Based on Empirical Evidence** ● Scientists look for patterns and order when making observations about the world. (1-LS1-2)

Stage 2 – Model Assessments

Transfer Task(s)

- Students will complete a draw and label activity that demonstrates how behaviors of parents and offspring help offspring survive and how plants and animals are not exactly like their parents. Include a written or oral explanation.
- Repeat the *Are You My Parents?* task with a different type of bird or animal.

Audience:

- Peer, self-reflection, teacher

Formative Evidence:

- Slide Diagnostic Questions
- Oral Comprehension Checks
- Teacher Observation
- Class Discussion/Anecdotal Notes
- *Parent and Offspring Similarities*
- *Are You My Parents?*
- *Corgi Puppies*
- Mystery Science End of Mystery Assessments:
  - Mystery 2 Assessment
  - Mystery 4 Assessment
  - Mystery 5 Assessment

Stage 3 – Learning Plan Resources and Activities

Suggested Resources for Planning:

Grade 1 Mystery Science Planning Guide and Resources
Tower Garden Lessons

Learning Activities:

1-LS1-2:

- Mystery 2 Read Along: Why do baby ducks follow their mother?

2-LS3-1

- Mystery 4 Read Along: Why do family members look alike?
- Identify Parents and Offspring
- NJCTL Slides - Parent/Offspring Differences

Additional Phenomena Videos:

- Cute Baby Animals

Suggested Methods:

- Phenomena based learning
- Problem Based Learning (PBL)
- Inquiry-Based Learning
- Case studies
- Engaging in Argument w/ evidence

UNIT 3: Mimicking Organisms to Solve Problems

Unit Summary:
In this unit of study, students develop an understanding of how plants and animals use their parts to help them survive, grow, and meet their needs. Students also need opportunities to develop possible solutions. As students develop possible solutions, one challenge will be to keep them from immediately implementing the first solution they think of and to instead think through the problem carefully before acting. Having students sketch their ideas or make a physical model is a good way to engage them in shaping their ideas to meet the requirements of the problem.

Concepts & Vocabulary:
Key vocabulary may include but are not limited to: Structure and Function, Human problem, Human solution (e.g. device), Biomimicry, External structures, Plant and animal needs, Human needs

Stage 1 – Desired Results

Performance Expectations: (PE) (Established Goals / Content Standards)

● 1-LS1-1: Use materials to design a solution to a human problem by mimicking how plants and/or animals use their external parts to help them survive, grow, and meet their needs.* Clarification Statement: Examples of human problems that can be solved by mimicking plant or animal solutions could include designing clothing or equipment to protect bicyclists by mimicking turtle shells, acorn shells, and animal scales; stabilizing structures by mimicking animal tails and roots on plants; keeping out intruders by mimicking thorns on branches and animal quills; and, detecting intruders by mimicking eyes and ears.

● K-2-ETS1-2: Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem.

Enduring Understandings (1-3 max) Students will understand that:	**Essential Questions** (1-2 EQ per EU)
● Humans can meet their needs by mimicking how plants and animals use their external parts. ● How to use materials to illustrate or build a model of a solution to a human problem.	● What can humans learn from watching plants and animals? ● How can an object be used to solve a problem? ● What is an object that can be used to solve a problem?

Science & Engineering Practices	Disciplinary Core Ideas	Crosscutting Concepts
Analyzing and Interpreting Data ● Analyze and interpret data to make sense of phenomena using logical reasoning. (3-LS3-1) **Constructing Explanations and Designing Solutions**	**LS1.A: Structure and Function** ● All organisms have external parts. Different animals use their body parts in different ways to see, hear, grasp objects, protect themselves, move from place to place, and seek, find, and take in	**Patterns** ● Patterns in the natural and human designed world can be observed, used to describe phenomena, and used as evidence. (1-LS1-2)

● Use materials to design a device that solves a specific problem or a solution to a specific problem. (1-LS1-1) **Developing and Using Models** ● Develop a simple model based on evidence to represent a proposed object or tool. (K-2-ETS1-2)	food, water and air. Plants also have different parts (roots, stems, leaves, flowers, fruits) that help them survive and grow. (1-LS1-1) **LS1.B: Growth and Development of Organisms** ● Adult plants and animals can have young. In many kinds of animals, parents and the offspring themselves engage in behaviors that help the offspring to survive. (1-LS1-2) **LS1.D: Information Processing** ● Animals have body parts that capture and convey different kinds of information needed for growth and survival. Animals respond to these inputs with behaviors that help them survive. Plants also respond to some external inputs. (1-LS1-1) **ETS1.B: Developing Possible Solutions** ● Designs can be conveyed through sketches, drawings, or physical models. These representations are useful in communicating ideas for a problem's solutions to other people. (K-2-ETS1-2)	**Structure and Function** ● The shape and stability of structures of natural and designed objects are related to their function(s). (1-LS1-1) ● The shape and stability of structures of natural and designed objects are related to their function(s). (K-2-ETS1-2) - **Connections to Engineering, Technology, and Applications of Science** **Influence of Science, Engineering and Technology on Society and the Natural World** ● Every human-made product is designed by applying some knowledge of the natural world and is built using materials derived from the natural world. (1-LS1-1)

Stage 2 – Model Assessments	
Transfer Task(s) ● Pose a human problem to the students. Students will design a solution by mimicking how plants or animals use their external body parts to help them survive, grow, or meet their needs. ● Wonders of Science Mythical Animal ○ Similar to Monster Activity	**Formative Evidence:** ● Slide Diagnostic Questions ● Oral Comprehension Checks ● Teacher Observation ● Class Discussion/Anecdotal Notes ● NJCTL - Formative Tasks ● Mystery Science End of Mystery Assessments

Audience: ● Peer, self-reflection, teachers observation.	○ Mystery 1 Assessment ○ Mystery 3 Assessment ○ Mystery 6 Assessment

Stage 3 – Learning Plan Resources and Activities
Grade 1 Mystery Science Planning Guide & Resources
Learning Activities: **1-LS1-1:** ● Mystery 1: Why do birds have beaks? ● Mystery 3: Why are polar bears white? ● Mystery 6 Read Along: What do sunflowers do when you're not looking? ● Animal Booklet ● STEM: Plants and Biomimicry - Day 1 ● STEM: Plants and Biomimicry - Day 2 ● NJCTL Activity: Build Your Own Monster (K-2-ETS1-2) ● Insect STEM Challenge: Super Strong or Just Super Tiny Video Students will use what they learned about ants to create a light weight model that can hold more than its own body weight. (example: ants can hold more than 50 times their body weight.) Student can use popsicle sticks, plastic spoons and pipe cleaners to replicate ant body parts. Students will test and evaluate their models. They will see how many snap cubes their structure can hold. Students will test their models with other groups. (K-2-ETS1-2, K-2-ETS1-3) **Additional Phenomena Videos:** ● Desert Beetle Harvests Water ● Polar Bears are actually Black **Suggested Methods**: ● Phenomena based learning

- Problem Based Learning (PBL)
- Inquiry-Based Learning
- Case studies
- Engaging in Argument w/ evidence

UNIT 4: Light and Sound

Unit Summary:
In this unit of study, students develop an understanding of the relationship between sound and vibrating materials as well as between the availability of light and the ability to see objects. The idea that light travels from place to place can be understood by students at this level by placing objects made with different materials in the path of a beam of light and determining the effect of the different materials.

Concepts & Vocabulary:
Key vocabulary may include but are not limited to: Sound, Vibrating materials, Cause and Effect, Darkness, Illumination, Appearance (e.g. visible, not visible, somewhat visible), Light, [External light source (e.g. sun, flashlight), Internal light source (e.g. light bulb, glow stick)], Object, Beam of Light, Materials [Transparent (e.g. clear plastic), Translucent (e.g. wax paper), Opaque (e.g. cardboard), Reflective (e.g. mirror)]

Stage 1 – Desired Results

Performance Expectations: (PE) (Established Goals / Content Standards)

● 1-PS4-1: Plan and conduct investigations to provide evidence that vibrating materials can make sound and that sound can make materials vibrate. Clarification Statement: Examples of vibrating materials that make sound could include tuning forks and plucking a stretched string. Examples of how sound can make matter vibrate could include holding a piece of paper near a speaker making sound and holding an object near a vibrating tuning fork.

● 1-PS4-2: Make observations to construct an evidence-based account that objects in darkness can be seen only when illuminated. ○ Clarification Statement: Examples of observations could include those made in a completely dark room, a pinhole box, and a video of a cave explorer with a flashlight. Illumination could be from an external light source or by an object giving off its own light.

● 1-PS4-3: Plan and conduct investigations to determine the effect of placing objects made with different materials in the path of a beam of light. ○ Clarification Statement: Examples of materials could include those that are transparent (such as clear plastic), translucent (such as wax paper), opaque (such as cardboard), and reflective (such as a mirror).] [Assessment Boundary: Assessment does not include the speed of light.

● 1-PS4-4: Use tools and materials to design and build a device that uses light or sound to solve the problem of communicating over a distance. [Clarification Statement: Examples of devices could include a light source to send signals, paper cup and string “telephones,” and a pattern of drum beats.] [Assessment Boundary: Assessment does not include technological details for how communication devices work.]

● K-2-ETS1-1: Ask questions, make observations, and gather information about a situation people want to change to define a simple problem that can be solved through the development of a new or improved object or tool.

● K-2-ETS1-2: Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem.

● K-2-ETS1-3: Analyze data from tests of two objects designed to solve the same problem to compare the strengths and weaknesses of how each performs.

Enduring Understandings	**Essential Questions**

Students will understand that: ● Understand the relationship between sound and vibrating materials. ● Understand the relationship between the availability of light and the ability to see objects. ● Understand that light and sound can be used to communicate over a distance. **Possible Misunderstanding(s):** ● How vibration connects to making a sound. ● Different materials affect if light can travel through it.	● Where do sounds come from? ● What is light? ● How can sound and light help people communicate with one another? ● What is communication?

Science & Engineering Practices	Disciplinary Core Ideas	Crosscutting Concepts
Planning and Carrying Out Investigations ● Plan and conduct investigations collaboratively to produce evidence to answer a question. (1-PS4-1),(1-PS4-3) **Constructing Explanations and Designing Solutions** ● Make observations (firsthand or from media) to construct an evidence-based account for natural phenomena. (1-PS4-2) ● Use tools and materials provided to design a device that solves a specific problem. (1-PS4-4) - **Connections to Nature of Science** **Scientific Investigations Use a Variety of Methods** ● Science investigations begin with a question. (1-PS4-1) ● Scientists use different ways to study the world. (1-PS4-1)	**PS4.A: Wave Properties** ● Sound can make matter vibrate, and vibrating matter can make sound. (1-PS4-1) **PS4.B: Electromagnetic Radiation** ● Objects can be seen if light is available to illuminate them or if they give off their own light. (1-PS4-2) ● Some materials allow light to pass through them, others allow only some light through and others block all the light and create a dark shadow on any surface beyond them, where the light cannot reach. Mirrors can be used to redirect a light beam. (Boundary: The idea that light travels from place to place is developed through experiences with light sources, mirrors, and shadows, but no attempt is made to discuss the speed of light.) (1-PS4-3) **PS4.C: Information Technologies and Instrumentation** ● People also use a variety of devices to communicate (send and receive information) over long	**Cause and Effect** ● Simple tests can be designed to gather evidence to support or refute student ideas about causes. (1-PS4-1),(1-PS4-2),(1-PS4-3) - **Connections to Engineering, Technology, and Applications of Science** **Influence of Engineering, Technology, and Science, on Society and the Natural World** ● People depend on various technologies in their lives; human life would be very different without technology. (1-PS4-4)

	distances. (1-PS4-4)	

Stage 2 – Model Assessments	
Transfer Task(s) ● Create a unique sound device where students can find partners in a crowded room. (1-PS4-4) Activity: Sound Cups ● Have students test their devices to compare the strengths and weaknesses of how each performs. (K-2-ETS1-3) ● Students bring various materials from home to create a unique sound device where they can find their partner in a crowded room. (1-PS4-4) ● 1-PS4-1 Assessment - Sound Performance Assessment	**Formative Evidence:** ● Slide Diagnostic Questions ● Oral Comprehension Checks ● Teacher Observation ● Class Discussion/Anecdotal Notes ● 1-PS4-2 Performance Assessment ● Mystery Science Assessments - Light & Sound ● Light Through Objects ● Communicate with Light or Sound (#11-12)

Stage 3 – Learning Plan Resources and Activities
Suggested Resources for Planning: Grade 1 Mystery Science Planning Guide & Resources **Standard Based Grading:** 1-PS4-1 Analysis Chart 1-PS4-2 Analysis Chart 1-PS4-3 Analysis Chart 1-PS4-4 Analysis Chart
Learning Activities: **1-PS4-1:** ● Mystery 1: How do they make silly sounds in cartoons? ● Mystery 2 Read Along: Where do sounds come from? ● Making A Band - Building Instruments ● String Phone Lab **2-PS4-2** ● Mystery 4 Read Along: Can you see in the dark?

- What Can You See?
- Light Cave Explorer Investigation

1-PS4-3

- Mystery 3: What if there were no windows?
- What Happens When Light Hits Certain Objects?

2-PS4-4

- Mystery 5: How could you send a secret message to someone far away? (K-2-ETS1-2)
- Mystery 6 Read Along: How do boats find their way in the fog?
- Communicating With Light and Sound
- Get Us Out of Here Lab
- STEM and Sound - Day 1
- STEM and Sound - Day 2

Additional Phenomena Videos:

- Using Light and Sound to Communicate

Suggested Methods: (The following methods anchor learning with a purpose, mitigating the “why do I need to know this” questions.)

- Phenomena based learning
- Problem Based Learning (PBL)
- Inquiry-Based Learning
- Case studies
- Engaging in Argument w/ evidence

First Grade Science
Course Compendium

UNITS OF STUDY*

Unit 1- *Patterns of Change in the Night Sky*
Unit 2- *Characteristics of Living Things*
Unit 3- *Mimicking Organisms to Solve Problems*
Unit 4- *Light and Sound*

INTERDISCIPLINARY CONNECTIONS

ELA Standards:

- W.1.2. Write informative/explanatory texts in which they name a topic, supply some facts about the topic, and provide some sense of closure.
- W.1.7. Participate in shared research and writing projects (e.g., explore a number of "how-to" books on a given topic and use them to write a sequence of instructions).
- W.1.8. With guidance and support from adults, recall information from experiences or gather information from provided sources to answer a question.
- RI.1.1. Ask and answer questions about key details in a text.
- RI.1.2. Identify the main topic and retell key details of a text.
- RI.1.3. Describe the connection between two individuals, events, ideas, or pieces of information in a text
- W.1.2. Report on a topic or text, tell a story, or recount an experience with appropriate facts and relevant, descriptive details, speaking clearly at an understandable pace.
- SL.1.1 Participate in collaborative conversations with diverse partners about grade 1 topics and texts with peers and adults in small and larger groups.
- SL.1.5. Create audio recordings of stories or poems; add drawings or other visual displays to stories or recounts of experiences when appropriate to clarify ideas, thoughts, and feelings.

Math Standards

- MP 1.Make sense of problems and persevere in solving them.
- MP.2. Reason abstractly and quantitatively.
- MP.4. Model with mathematics.
- MP.5. Use appropriate tools strategically.
- 1.OA.A.1. Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations to represent the problem.
- 1.MD.C.4. Organize, represent, and interpret data with up to three categories; ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another. (1-ESS1-2) 1.MD.C.4
- 1. MD. A.2. . Express the length of an object as a whole number of length units, by laying multiple copies of a shorter object (the length unit) end

**See individual units for Pacing Guide, NJSLS Standards, Transfer Skills, Enduring Understandings, Essential Questions, Learning Objectives, Key Vocabulary, Skills, Resources, & Assessments*

to end; understand that the length measurement of an object is the number of same-size length units that span it with no gaps or overlaps.

21st Century Life and Careers

- CRP2. Apply appropriate academic and technical skills.
- CRP4. Communicate clearly and effectively and with reason.
- CRP5. Consider the environmental, social and economic impacts of decisions.
- CRP7. Employ valid and reliable research strategies.
- CRP8. Utilize critical thinking to make sense of problems and persevere in solving them.
- CRP11. Use technology to enhance productivity.
- CRP12. Work productively in teams while using cultural global competence.
- **9.2.4.A.3** Investigate both traditional and nontraditional careers and relate information to personal likes and dislikes.
- **9.2.4.A.4** Explain why knowledge and skills acquired in the elementary grades lay the foundation for future academic and career success.

Technology

- **8.2.2.B.4** Identify how the ways people live and work has changed because of technology.
- **8.2.2.C.1** Brainstorm ideas on how to solve a product.

<table>
<tr><th colspan="3">GENERAL CONSIDERATIONS FOR DIVERSE LEARNERS</th></tr>
<tr><th>English Language Learners</th><th>Students Receiving Special Education Services</th><th>Advanced Learners</th></tr>
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<td>

WIDA Can Do Descriptors for Kindergarten*
WIDA Essential Actions Handbook
FABRIC Paradigm
Wall Township ESL Grading Protocol

*Use WIDA Can Do Descriptors in coordination with Student Language Portraits (SLPs).

Potential Accommodations for ELLs

Personal glossary
Text-to-speech
Extended time
Simplified / verbal instructions
Frequent breaks
Small group/One to one
Additional time

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New Jersey Tiered System of Supports
National Center on Universal Design for Learning - About UDL
UDL Checklist
UDL Key Terms

Students within this class receiving Special Education/Section 504 programming have specific goals and objectives, as well as accommodations and modifications outlined within their Individualized Education Plans (IEP)/504 Plans due to an identified disability and/or diagnosis. In addition to exposure to the general education curriculum, instruction is differentiated based upon the student's needs. The IEP/504 Plan acts as a supplemental curriculum guide inclusive of instructional strategies that support each specific learner.

Potential Accommodations for Special Education

Presentation accommodations:
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Knowledge and Skill Standards in Gifted Education for All Teachers
Pre-K-Grade 12 Gifted Programming Standards
Gifted Programming Glossary of Terms

Potential Accommodations for Advanced Learners

Use of high level academic vocabulary/texts
Problem-based learning
Pre-assess to condense curriculum
Interest-based research
Authentic problem-solving
Homogeneous grouping opportunities

Students with 504 Plans
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**See individual units for Pacing Guide, NJSLS Standards, Transfer Skills, Enduring Understandings, Essential Questions, Learning Objectives, Key Vocabulary, Skills, Resources, & Assessments*

● Review of directions ● Student restates information ● Extra visual and verbal cues and prompts ● Preferential seating ● Verbal and visual cues regarding directions and staying on task ● Checklists ● Immediate feedback	● Listen to audio recordings instead of reading text ● Pre-teach unknown vocabulary through pictures or videos, and relate to prior knowledge ● Work with fewer items per page and/or materials in a larger print size ● Use a visual blocker ● Use visual presentations of verbal material, such as word webs and visual organizers ● Be given a written list of instructions/picture cues **Response accommodations**: ● Give responses in a form (oral or written) that's easier for him/her ● Dictate answers to a scribe ● Capture responses on an audio recorder ● Use a spelling dictionary or electronic spell-checker ● Use a word processor to give responses in class ● Use a calculator or table of "math facts" **Setting accommodations**: ● Work or take a test in a different setting, such as a quiet room with few distractions ● Sit where he/she learns best (for example, near the teacher) ● Take a test in small group setting **Timing accommodations**: ● Take more time to complete a task or a test ● Have extra time to process oral information and directions ● Take frequent breaks, such as after completing a task **Assignment modifications**: ● Complete fewer or different homework problems than peers ● Shorten assignment ● Answer fewer or different test questions ● Create alternate projects or assignments	Teachers are responsible for implementing designated services and strategies identified on a student's 504 Plan.

**See individual units for Pacing Guide, NJSLS Standards, Transfer Skills, Enduring Understandings, Essential Questions, Learning Objectives, Key Vocabulary, Skills, Resources, & Assessments*

Alternative Assessments	Independent Research & Projects	Jigsaw
Choice Boards	Multiple Intelligence Options	Think-Tac-Toe
Games and Tournaments	Project-Based Learning	Cubing Activities
Group Investigations	Varied Supplemental Activities	Exploration by Interest
Guided Reading	Varied Journal Prompts or RAFT Writing	Flexible Grouping
Learning Contracts	Tiered Activities/Assignments	Goal-Setting with Students
Leveled Rubrics	Tiered Products	Homework Options
Literature Circles	Graphic Organizers	Open-Ended Activities
Multiple Texts	Choice of Books/Activities	Use of Reading Buddies
Personal Agendas	Mini-Workshops to Reteach or Extend	Varied Product Choices
	Think-Pair-Share by readiness or interest	Stations/Centers
	Use of Collaboration of Various Activities	Work Alone/Together

**See individual units for Pacing Guide, NJSLS Standards, Transfer Skills, Enduring Understandings, Essential Questions, Learning Objectives, Key Vocabulary, Skills, Resources, & Assessments*