



## Summary

### Where We Are In Place And Time

Subject	Year	Start date	Duration
English, Science Lab, Social Studies	Fourth Grade	Week 1, August	7 weeks

## Inquiry

### Transdisciplinary Theme



#### Where we are in place and time

An inquiry into orientation in place and time  
Homes and journeys  
The discoveries, explorations and migrations of humankind

### The Central Idea

Discoveries lead to advancements.

### Lines of Inquiry

- Impacts of technology
- System of beliefs and values
- Discovery of Freedoms

### Teacher questions

- How have technological advances in space exploration led to discoveries and advancements?
- Where and what were the American colonies were under British rule in 1775, and how did their locations lead to a pattern of dissent?
- What discoveries did the colonists make about King George III? Was King George III a tyrant?
- How was the Declaration of Independence, in response to tyranny, an example of an advancement?
- Why did the authors of the Declaration of Independence include natural rights?
- How does knowledge in the present influence your ideas about the past and the future?
- How do technological advances impact humans in the past, present, and future?

## Learning Goals

### Connections: Transdisciplinary and Past

Weeks 1-3:

- Students will be applying the central idea to development of their personal learning and SEL goal for the year: [Learner Profile Goal and Action Plan](#)
- Students learn how to use ManageBac Portfolio: Goal setting



- Students will be participating in team building activities to help form their goals: [Jamboard Community Meeting Goal Setting](#)

**Other Resources:**

- [Peer/Self Feedback: "Glows and Grows"](#)



[Key\\_Concepts\\_Converstaion\\_Bingo\\_Board.pdf](#) Jun 1, 2022

**Standards and benchmarks**

Georgia State Standards: GSE: English Language Arts (2015)  
LANGUAGE (L) (Grade 4)

Conventions of Standard English

ELAGSE4L1: Demonstrate command of the conventions of Standard English grammar and usage when writing or speaking.

ELAGSE4L1f. Produce complete sentences, recognizing and correcting rhetorically poor fragments and run-ons.\*

ELAGSE4L2: Demonstrate command of the conventions of Standard English capitalization, punctuation, and spelling when writing.

ELAGSE4L2a. Use correct capitalization.

ELAGSE4L2b. Use commas and quotation marks to mark direct speech and quotations from a text.

ELAGSE4L2d. Spell grade-appropriate words correctly, consulting references as needed.

Knowledge of Language

ELAGSE4L3b. Choose punctuation for effect.\*

Vocabulary Acquisition and Use

ELAGSE4L4: Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 4 reading and content, choosing flexibly from a range of strategies.

ELAGSE4L4a. Use context (e.g., definitions, examples, or restatements in text) as a clue to the meaning of a word or phrase.

ELAGSE4L4c. Consult reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation and determine or clarify the precise meaning of key words and phrases.

ELAGSE4L5c. Demonstrate understanding of words by relating them to their opposites (antonyms) and to words with similar but not identical meanings (synonyms).

ELAGSE4L6: Acquire and use accurately grade-appropriate general academic and domain-specific vocabulary, including words and phrases that signal precise actions, emotions, or states of being (e.g., quizzed, whined, stammered) and words and phrases basic to a particular topic (e.g., wildlife, conservation, and endangered when discussing animal preservation).

READING FOUNDATIONAL (RF) (Grade 4)



#### Phonics and Word Recognition

ELAGSE4RF3: Know and apply grade-level phonics and word analysis skills in decoding words.

ELAGSE4RF3a. Use combined knowledge of all letter-sound correspondences, syllabication patterns, and morphology (e.g., roots and affixes) to read accurately unfamiliar multi-syllabic words in context and out of context.

#### Fluency

ELAGSE4RF4c. Use context to confirm or self-correct word recognition and understanding, rereading as necessary.

#### READING INFORMATIONAL (RI) (Grade 4)

##### Key Ideas and Details

ELAGSE4RI2: Determine the main idea of a text and explain how it is supported by key details; summarize the text.

##### Integration of Knowledge and Ideas

ELAGSE4RI7: Interpret information presented visually, orally, or quantitatively (e.g., in charts, graphs, diagrams, time lines, animations, or interactive elements on Web pages) and explain how the information contributes to an understanding of the text in which it appears.

#### READING LITERARY (RL) (Grade 4)

##### Key Ideas and Details

ELAGSE4RL1: Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text.

ELAGSE4RL2: Determine a theme of a story, drama, or poem from details in the text; summarize the text.

ELAGSE4RL3: Describe in depth a character, setting, or event in a story or drama, drawing on specific details in the text (e.g., a character's thoughts, words, or actions).

##### Craft and Structure

ELAGSE4RL6: Compare and contrast the point of view from which different stories are narrated, including the difference between first- and third-person narrations.

##### Integration of Knowledge and Ideas

ELAGSE4RL9: Compare and contrast the treatment of similar themes and topics (e.g., opposition of good and evil) and patterns of events (e.g., the quest) in stories, myths, and traditional literature from different cultures.

#### SPEAKING AND LISTENING (SL) (Grade 4)

##### Comprehension and Collaboration

ELAGSE4SL1: Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 4 topics and texts, building on others' ideas and expressing their own clearly.

ELAGSE4SL1a. Come to discussions prepared, having read or studied required material; explicitly draw on that preparation and other information known about the topic to explore ideas under discussion.

ELAGSE4SL1b. Follow agreed-upon rules for discussions and carry out assigned roles.



ELAGSE4SL1c. Pose and respond to specific questions to clarify or follow up on information, and make comments that contribute to the discussion and link to the remarks of others.

ELAGSE4SL1d. Review the key ideas expressed and explain their own ideas and understanding in light of the discussion.

ELAGSE4SL2: Paraphrase portions of a text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally.

ELAGSE4SL3: Identify the reasons and evidence a speaker provides to support particular points.

#### Presentation of Knowledge and Ideas

ELAGSE4SL5: Add audio recordings and visual displays to presentations when appropriate to enhance the development of main ideas or themes.

#### WRITING (W) (Grade 4)

##### Text Types and Purposes

ELAGSE4W3: Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences.

ELAGSE4W3a. Orient the reader by establishing a situation and introducing a narrator and/or characters; organize an event sequence that unfolds naturally.

ELAGSE4W3b. Use dialogue and description to develop experiences and events or show the responses of characters to situations.

ELAGSE4W3c. Use a variety of transitional words and phrases to manage the sequence of events.

ELAGSE4W3d. Use concrete words and phrases and sensory details to convey experiences and events precisely.

ELAGSE4W3e. Provide a conclusion that follows from the narrated experiences or events.

##### Production and Distribution of Writing

ELAGSE4W4: Produce clear and coherent writing in which the development and organization are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in Standards 1–3 above.)

ELAGSE4W5: With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, and editing. (Editing for conventions should demonstrate command of Language Standards 1–3 up to and including grade 4.)

##### Research to Build and Present Knowledge

ELAGSE4W8: Recall relevant information from experiences or gather relevant information from print and digital sources; take notes and categorize information, and provide a list of sources.

ELAGSE4W9: Draw evidence from literary or informational texts to support analysis, reflection, and research.

ELAGSE4W9a. Apply grade 4 Reading Standards to literature (e.g., “Describe in depth a character, setting, or event in a story or drama, drawing on specific details in the text [e.g., a character’s thoughts, words, or actions]”).

##### Range of Writing

ELAGSE4W10: Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.



Georgia State Standards: GSE: Fine Arts: Music (2018)

General Music (Grade 4)

Creating

ESGM4.CR.1 Improvise melodies, variations, and accompaniments.

- a. Improvise rhythmic question and answer phrases using a variety of sound sources.

ESGM4.CR.2 Compose and arrange music within specified guidelines.

- d. Arrange rhythmic patterns to create simple forms and instrumentation.

Performing

ESGM4.PR.1 Sing a varied repertoire of music, alone and with others.

- a. Sing accompanied and unaccompanied melodies within an appropriate range using head voice.

ESGM4.PR.2 Perform a varied repertoire of music on instruments, alone and with others.

- a. Perform rhythmic patterns with body percussion and a variety of instruments using appropriate technique.
- b. Perform body percussion and instrumental parts, including ostinatos, while other students play or sing contrasting parts.
- d. Perform multiple songs representing various genres, tonalities, meters, and cultures.

ESGM4.PR.3 Read and Notate music.

- a. Read, notate, and identify, in various meters, iconic or standard notation (e.g. quarter notes, quarter rests, barred eighth notes, half notes, half rests, dotted half notes, barred sixteenth notes, whole notes, whole rests).

Responding

ESGM4.RE.1 Listen to, analyze, and describe music.

- a. Distinguish between repeating and contrasting sections, phrases, and formal structures (e.g. AB, ABA, verse/refrain, rondo, introduction, coda).
- b. Describe music using appropriate vocabulary (e.g. fortissimo/pianissimo, presto/largo/moderato/allegro/adagio, legato/staccato, major/minor), intervals (e.g. step, skip, repeat, leap), timbre adjectives (e.g. dark/bright), and texture adjectives (e.g. thick/thin).
- c. Identify and classify (e.g. families, ensembles) classroom, orchestral, American folk, and world instruments by sight and sound.

ESGM4.RE.2 Evaluate music and music performances.

- a. Use teacher-provided and collaboratively developed criteria for evaluation of music and music performances (e.g. learned, student-composed, improvised).
- b. Use formal and/or informal criteria to evaluate music and musical performances by themselves and others.
- c. Refine music performances by applying personal, peer, and teacher feedback.

ESGM4.RE.3 Move to a varied repertoire of music, alone and with others.

- a. Respond to contrasts and events in music with locomotor and non-locomotor movement.



Connecting

ESGM4.CN.1 Connect music to the other fine arts and disciplines outside the arts.

- a. Discuss connections between music and the other fine arts.

ESGM4.CN.2 Connect music to history and culture.

- a. Perform and respond to music from various historical periods and cultures.

Georgia State Standards: GSE: Fine Arts: Visual Arts (2017)

Creating (Grade 4)

VA4.CR.1 Engage in the creative process to generate and visualize ideas by using subject matter and symbols to communicate meaning.

- a. Utilize multiple approaches to plan works of art incorporating imaginative ideas, universal themes, and symbolic images.
- b. Apply available resources, tools, and technologies to investigate personal ideas through the process of making works of art.
- c. Produce multiple prototypes in the planning stages for a work of art (e.g. sketches, 3D models).

VA4.CR.2 Create works of art based on selected themes.

- b. Create works of art emphasizing multiple elements of art and/or principles of design.
- c. Create representational works of art from direct observation (e.g. landscape, still life, portrait).

VA4.CR.3 Understand and apply media, techniques, processes, and concepts of twodimensional art.

- d. Apply understanding of multiple color schemes to create works of art (e.g. monochromatic, analogous, neutral, complementary).
- e. Explore multiple spatial concepts to create works of art (e.g. one point perspective, atmospheric perspective, positive and negative space).

VA4.CR.5 Demonstrate an understanding of the safe and appropriate use of materials, tools, and equipment for a variety of artistic processes.

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Responding (Grade 4)

VA4.RE.1 Use a variety of approaches for art criticism and to critique personal works of art and the artwork of others to enhance visual literacy.

- b. Explain how selected elements and principles of design are used in works of art to convey meaning.
- d. Use a variety of strategies to critique, discuss, and reflect on personal works of art and the work of peers.

Connecting (Grade 4)

VA4.CN.2 Integrate information from other disciplines to enhance the understanding and production of works of art.

- b. Apply art skills and knowledge to improve understanding in other disciplines.



VA4.CN.3 Develop life skills through the study and production of art (e.g. collaboration, creativity, critical thinking, communication).

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Georgia State Standards: GSE: Mathematics (2016)  
Operations & Algebraic Thinking (Grade 4)

4.OA Gain familiarity with factors and multiples.

MGSE4.OA.4. Find all factor pairs for a whole number in the range 1–100. Recognize that a whole number is a multiple of each of its factors. Determine whether a given whole number in the range 1–100 is a multiple of a given one-digit number. Determine whether a given whole number in the range 1–100 is prime or composite.

4.OA Generate and analyze patterns.

MGSE4.OA.5. Generate a number or shape pattern that follows a given rule. Identify apparent features of the pattern that were not explicit in the rule itself. Explain informally why the pattern will continue to develop in this way.

Number & Operations in Base Ten (Grade 4)

4.NBT Generalize place value understanding for multi-digit whole numbers.

MGSE4.NBT.1. Recognize that in a multi-digit whole number, a digit in any one place represents ten times what it represents in the place to its right.

MGSE4.NBT.2. Read and write multi-digit whole numbers using base-ten numerals, number names, and expanded form. Compare two multi-digit numbers based on meanings of the digits in each place, using  $>$ ,  $=$ , and  $<$  symbols to record the results of comparisons.

MGSE4.NBT.3. Use place value understanding to round multi-digit whole numbers to any place.

4.NBT Use place value understanding and properties of operations to perform multi-digit arithmetic.

MGSE4.NBT.4. Fluently add and subtract multi-digit whole numbers using the standard algorithm.

Georgia State Standards: GSE: Physical Education (2018)  
Motor Skills and Movement Patterns (Grade 4)

PE4.1 The physically educated student demonstrates competency in a variety of motor skills and movement patterns.

Locomotor

a. Uses various locomotor skills in a variety of small-sided games, dance, and educational gymnastics experiences.

b. Creates a repeatable dance, gymnastics, or exercise routine when combining locomotor movement patterns.

Non-Locomotor

c. Balances on different bases of support while transferring weight (walk and balance on a low beam, log roll, transfer weight while stretching and transferring weight from one foot to the other).

d. Transfers weight in gymnastics and/or dance environments.

Manipulative Skills



- e. Throws underhand and overhand using a mature form to a stationary partner or target with reasonable accuracy.
- f. Throws to a moving partner or target with reasonable accuracy.
- g. Catches a ball thrown from a partner at three different levels (high, medium, and low) with proper form.
- h. Dribbles with dominant and non-dominant hands in general space with control of ball and body while increasing and decreasing speed.
- i. Dribbles (with feet) in general space with control of ball and body while increasing and decreasing speed.
- j. Kicks an object along the ground and in the air.
- k. Punts a ball using mature form.
- l. Receives and passes the ball with the inside and outside of the feet to a stationary and moving target.
- m. Volleys underhand using a mature form in small-sided games.
- n. Volleys a ball upward with a two-hand overhead pattern.
- o. Strikes an object with a short-handled implement (lollipop paddle or ping pong paddle) alternating hits with a partner over a low net, line, or against a wall demonstrating mature form.
- p. Strikes an object with a long-handled implement (hockey stick, golf club, bat, tennis or badminton racket) while demonstrating three of the five critical elements of a mature form (grip, stance, body orientation, swing plane, and follow-through).
- q. Combines traveling with the manipulative skills of dribbling, throwing, catching, striking, and kicking in small-sided games.
- r. Creates and/or performs a jump rope routine.

**Fitness (Grade 4)**

PE4.3 The physically educated student demonstrates knowledge and skills to help achieve and maintain a health-enhancing level of physical activity and fitness.

- a. Identifies physical activities which contribute to fitness.
- b. Demonstrates warm-up and cool-down activities as they relate to cardiorespiratory fitness assessment.
- c. Identifies the components of health-related fitness.
- d. Demonstrates the proper protocol and identifies form breaks for the Georgia fitness assessment components.
- e. Identifies what the Health Fitness Zones are and connects their significance as a piece of the Georgia Fitness Assessment.
- f. Participates in the Georgia Fitness Assessment Program with teacher supervision and determines if he/she is within the healthy fitness zone.
- g. Identifies areas to improve based on Georgia Fitness Assessment results.
- h. Compares opportunities for participating in physical activity outside of physical education class.
- i. Independently engages in physical education class.
- j. Discusses the importance of hydration related to physical activity.

**Personal and Social Behavior, Rules, Safety, and Etiquette (Grade 4)**





PE4.4 The physically educated student exhibits responsible personal and social behavior that respects self and others in physical activity settings.

- a. Exhibits responsible behavior through adherence to rules and procedures in a variety of physical activities.
- b. Exhibits independent and cooperative responsibility.
- c. Listens respectfully to corrective feedback from others (peers and adults).
- d. Works safely with peers and equipment in physical activity settings.

PE4.5 The physically educated student recognizes the value of physical activity for health, enjoyment, challenge, self-expression, and/or social interaction.

- a. Examines the health benefits of participating in physical activity.
- b. Ranks the enjoyment and/or challenge of various physical activities.
- c. Describes and compares the positive social interactions when engaged in a variety of physical activities.

Georgia State Standards: GSE: Science (2016)  
Earth and Space Science (Grade 4)

S4E1. Obtain, evaluate, and communicate information to compare and contrast the physical attributes of stars and planets.

- a. Ask questions to compare and contrast technological advances that have changed the amount and type of information on distant objects in the sky.
- b. Construct an argument on why some stars (including the Earth's sun) appear to be larger or brighter than others.
- c. Construct an explanation of the differences between stars and planets.
- d. Evaluate strengths and limitations of models of our solar system in describing relative size, order, appearance and composition of planets and the sun.

Georgia State Standards: GSE: Social Studies (2016)  
Historical Understandings (Grade 4)

SS4H1 Explain the causes, events, and results of the American Revolution.

- a. Trace the events that shaped the revolutionary movement in America: French and Indian War, 1765 Stamp Act, the slogan "no taxation without representation," the activities of the Sons of Liberty, the activities of the Daughters of Liberty, Boston Massacre, and the Boston Tea Party.
- b. Describe the influence of key individuals and groups during the American Revolution: King George III, George Washington, Benjamin Franklin, Thomas Jefferson, Benedict Arnold, Patrick Henry, John Adams, Paul Revere, and Black regiments.

Map and Globe Skills (Grade 4)

GOAL: The student will use maps to retrieve social studies information.

- 1. use a compass rose to identify cardinal directions A
- 2. use intermediate directions A
- 3. use a letter/number grid system to determine location A
- 4. compare and contrast the categories of natural, cultural, and political features found on maps A






5. use graphic scales to determine distances on a map I
6. use map key/legend to acquire information from historical, physical, political, resource, product, and economic maps M
7. use a map to explain impact of geography on historical and current events M
8. draw conclusions and make generalizations based on information from maps M
9. use latitude and longitude to determine location D
10. compare maps of the same place at different points in time and from different perspectives to determine changes, identify trends, and generalize about human activities I
11. compare maps with data sets (charts, tables, graphs) and /or readings to draw conclusions and make generalizations I



### Key and Related Concepts

#### Key Concepts

Key Concepts	Key questions and definition	Rationale	Related concepts	Subject Focus
 Change	<b>How is it transforming?</b> The understanding that change is the process of movement from one state to another. It is universal and inevitable.			
 Connection	<b>How is it linked to other things?</b> The understanding that we live in a world of interacting systems in which the actions of any individual element affect others.			
 Perspective	<b>What are the points of view?</b> The understanding that knowledge is moderated by different points of view which lead to different interpretations, understandings and	Students are better able to understand and interpret the perspectives of individual and groups living in a particular time period and how technological advances change their perspectives and way of life.	Understand how technological advances change the perspective of the people living a given area and time period.	English, Science Lab, Social Studies



Key Concepts	Key questions and definition	Rationale	Related concepts	Subject Focus
	findings; perspectives may be individual, group, cultural or subject-specific.			



## Developing IB Learners

### Learner Profile



Open-minded



Balanced

#### Description

Students will be **open-minded** when investigating the effects of colonialism in N.America (**discoveries**), and scientific **advancements**/technologies that have influenced space exploration.

Students will use inquiry to gain **balance and insight** into what it takes to be historical explorers of the Earth and space (trial and error).

Students will also display their **open-mindedness** and practice **balance** as they create and present various inquiry-based knowledge products such as scaled models of the solar system and stars or teaching timelines of important historic events surrounding the Revolutionary War.



## ATL Skills

### Approaches to Learning

#### Description

Students will be **balanced** when asking questions related to the topic. Students will be **open-minded** when asked to answer higher order thinking questions. Students will keep an **open-mind** when learning about groups from around the world and how discoveries led to advancements for some groups and decline for other groups. Students are **open-minded** when presenting findings to the class and teacher and while sharing ideas with peers during small groups.



#### Thinking Skills

- Information Transfer - Using skills and knowledge in multiple contexts

Use memory techniques to develop long-term memory.



Inquire in different contexts to gain different perspectives.

Make connections between units of inquiry and between subjects.

Transfer conceptual understandings across transdisciplinary themes and subjects.

Combine knowledge, conceptual understandings and skills to create products or solutions.

Apply skills and knowledge in unfamiliar situations or outside of school.

Help others develop conceptual understandings and skills.



**Self-management Skills**

- States of mind - Using strategies that manage state of mind

Emotional management

Take responsibility for one's own actions.

Use strategies to prevent and eliminate bullying.

Use strategies to reduce stress and anxiety.

Manage anger and resolve conflict.



**Action**

**Student-initiated Action**

Some students downloaded the Star Gazer app to continue their investigation.

Students questioned the existence of other possible planets and why scientists chose to change planets to dwarf planets and back to regular planets again.



**Assessment & Resources**

**Ongoing Assessment**

What are the possible ways of assessing student learning in the context of the lines of inquiry? What evidence will we look for?

**Culminating Activity: Interest-based peer groups will select a knowledge product from the attached choice board:**

**Summative Assessment Choice Board and Rubric Where We are in Place & Time**

**Students will use their newly acquired knowledge and experiences to complete and present their choice product to peers while connecting their product to central idea and/or Key concepts. Student will engage in a feed back session to explore these connections: [Peer/Self Feedback: "Glows and Grows"](#)**



[Music Assessment](#)



## **Student Self-assessment and Peer Feedback**

Students will learn about how to give and receive effective feedback. Students will be presenting their choice-board activity (knowledge-product) in a class gallery walk. Students will learn to write "glow and grow" feedback for themselves and peers. They can write it on a sticky note or digitally. Students will be given time to reflect on the "glows and grows" by taking a picture of their project AND the glows and grows and uploading to their unit reflection in their ManageBac portfolio.

**Peer/Self Feedback: "Glows and Grows"**

[Learner Profile Goal and Action Plan](#)

## **Learning Experiences**

### **Designing engaging Learning Experiences**

#### **Provocations**

- **Teachers will utilize the Google Slides to start the unit, print for inquiry board, and for provocation activities.**

- [Making Thinking Visible: Jamboard and Google Slide Templates #1](#)
- [Making Thinking Visible: Jamboard and Google Slide Templates #2](#)

**Choose a template from above and question or two from below**



- How do you think technological advances impact humans in the past, present, and future?
- How might multiple paths, taken by different populations throughout history, lead to similar destinations?
- How does knowledge in the present influence your ideas about the past and the future?

**Novel Studies/SEL-themed based on 5 Core Competencies (i.e., self-management, self-awareness, relationship skills,) Approaches to Learning, & the Learner Profile**

**Tiger Rising (i.e., Relationship Skills)**

**Wonder (i.e., Communicator)**

Weekly Read-Alouds (The Junkyard Wonders, A Boy and a Jaguar, The Other-Side, Snook, Step Right Up)

**Social Studies**

**Studies Weekly Order Of Units:**

- 1) French and Indian War (Pre-war) [Pre-Revolutionary War](#)
- 2) Salt Dough Maps of 13 British Colonies [Salt-dough Map Project](#)



MapSkillsUnitActivitiesforMapsandGlobesDistanceLearning\_\_1\_.pdf  
Jun 1, 202

- 3) Trouble In The Colonies (1 Week)
- 4) Mounting Tensions In The Colonies (1 Week)
- 5) Declaring Independence (1 Week)

[Why Take Risks Project](#)

- 6) The Declaration of Independence (1 week)
- 7) Waging The Revolutionary War (1 Week)

[Betsy Ross Vs. King George](#)



Cartoon Analysis  
May 31, 2022

[https://www.youtube.com/embed/67Lcp\\_4oZHM](https://www.youtube.com/embed/67Lcp_4oZHM)

**Science:**

Week 1 Focus on IB Profiles

**Stemscopes Order of Units:**

- 1) Technology In Astronomy (3 weeks)



**How do technological advances impact humans in the past, present, and future?**

- [Orbiting Observatory Design Challenge](#)

[\(2022\) G4 Lesson 1: Technology In Astronomy](#)

**2) Attributes Of Stars (2 Weeks)**

[\(2021\) G4- Lesson 2: Attributes Of Stars](#)

[Attributes of Stars EXPLORE Student Journal](#)

**4) Comparing Stars And Planets (1 Week)**

[\(2022\) G4- Lesson 3: Comparing Stars And Planets](#)

**3) Solar System (1 weeks)**

[\(2022\) G4- Lesson 1: The Solar System](#)

Model of the Solar system project (1 week)

**Music**

**Central Idea: Structure supports music.**

**Key Concept: Form, Causation, Connection**

**Learner Profile: Students will develop communicator and risk-taker learner profiles by playing new musical selections and working with others to perform. Students will develop attitudes of respect, cooperation, and tolerance as they work with others, learn how to listen to others in their ensemble, and develop respectful ensemble techniques.**

Assessment: Students will receive a performance assessment on musical ensembles played, and students will practice analyzing other ensemble parts according to student and teacher-determined criteria.

Activities: Perform percussion ensembles

Approaches to Learning: Self-Management, Communication

Lines of inquiry: How can music move across space and/or time?

How does music migrate?

- Students will perform music from other time periods or places and discuss connection
- Students will discuss how other time periods and/or places influenced music

**Spanish**

**Key Concept: Form, Causation, Connection**

- Students will learn vocabulary associated with the planets in Spanish. DLI will learn vocabulary to describe the physical attributes of the planets.

**Art Class Instruction:**

Key Concepts: Form, perspective, and Reflection

Students will focus on IB profiles: inquirer, knowledgeable, and communicator by:



- creating works of art that display both elements of art: line and shape
- identifying how artists use line for different imagery and situations (example: how would "wind" look as a line vs. bricks-connecting visual imagery to visual representation)
- using math to plan out name/letter spacing on our "name Tags"
- making connections to other disciplines - science, and math. Example: organic and geometric line, division for letter planning
- reviewing "composition" and how it related to other disciplines. Planning out how letters can fill a space
- Problem solving through letter spacing
- using class discussion and line identification to create different visual imagery to complete provided worksheet
- planning a rough draft, and executing their final designs.

Assessment: Geometric and Organic name designs

### **Science Lab**

**Key Concepts: Form, Perspective, Connection** Activities:

- Students will utilize experience all the steps of a STEAM design challenge with the Art -bot design challenge. Students will connect how multiple paths can lead to the same outcome
- Students will investigate and inquire about the impact of tech. advances on space discoveries with the below activities:
- Students will view Sci-Show video on the phases of the moon, then investigate using moon stations: phases or moon puzzle, collar, flip-book, model with sun, moon, earth, to explain and describe the repeating pattern of the phases of the moon AND to explain why the length of day and night change throughout the year. Students will share answers and arguments on Flip-grid.
- Students will view Mystery Science: Wandering Planets, then learn how models of solar systems have strengths and weakness with the "Race to Neptune" to scale chalk drawing of solar system.
- Students will expand knowledge of differences between stars and planets with Space Escape Room activity
- Students will investigate and argue why stars appear larger or brighter than others with star life-cycle chart , comparison phenomena video, and create a celestial body sticker to put in Planetarium.

### **Physical Education**

**Key Concept:** Connection, Change, Perspective

**Learner Profile:** Open-minded, Balanced

Students will develop communicator and how to be a risk-taker by engaging in physical activity and working with others to perform at individual fitness level. Students will develop attitudes of respect, cooperation, and tolerance as they work with others.

Assessment: Students will perform fitness activities with 80% accuracy while maintaining form during exercises, and students will practice analyzing other healthy fitness behaviors according to teacher-determined criteria.

Activity:

Students will participate in the Fitness Gram pre-test to determine fitness levels at the beginning of year to set fitness goals. Testing includes Pacer Test, Curl ups, Push-ups, Flexibility and Cardiovascular Endurance.





## Supporting Student Agency

- Students will be choosing their own choice board activity for their knowledge product.
- Through their presentation in the gallery walk, they will be making and reflecting upon own learning goals
- students will decide their own action ideas
- students will implement their own action ideas
- students will be uploading knowledge products and evidence they feel was important to their understanding of the the Central Idea into the MangageBac Portfolios.

## Reflections

### General Reflections

### Looking Back



**Wendy Sanders** Nov 30, 2021 at 4:01 PM

Evidence gathered: quizzes, team projects, debates, time-line projects, models created to teach about star size comparisons, Flipgrid videos of STEM design challenge of 5 different satellites/satellites described below.

### Tech. Advancements and Discoveries

#### [Orbiting Observatory Team Design Challenge:](#)

1. Work with your partner to prepare your knowledge project by clicking Google Slides below, then choose the slide with the telescope you and your partner chose to build a model of.
2. View the video and slides to **build your knowledge** so you can **COMMUNICATE** to others the many **discoveries about space and our planet that your orbiting telescope has revealed.**
3. Once you upload your video it's time for **FEEDBACK with 1 GLOW and 1 GROW**, for your own video and at least 2 others.



4. Last be sure to view the feedback and reflect on the responses with your partner. **DISCUSSION TIME:** What would you do different? What worked best? Were you showing your IB attributes? If so how?

Learner-profiles: students participated in SEL sessions where they conducted self and peer feedback to reflect upon their learner profile strengths and weaknesses.

We plan to create a Google Form to reflect on the Learner Profiles and central ideas.



**Rachel Bailey** May 17, 2023 at 2:04 PM

We effectively monitored student learning by evaluating students using APS apps and teacher-created assessments. Students engaged in cooperative groups and worked together to create and present their understanding of Tensions In The Colonies and how Technological advancements led to larger communities and cities worldwide.

Evidence gathered included formative and summative assessments, projects, posters, slideshow presentations and more. Students worked together to gather data and to create presentations to share with the class.



**Erica Pease** Oct 9, 2023 at 11:09 AM

Discoveries leading to advances: Intense but the students understood the colonist perspective/need for independence and freedom.

Change/Connection/Perspective: Jam boards offered a lot of room for VST and students could demonstrate their knowledge of the concepts presented.

Overall with following the planner we were very effective from grasp to activities. Focused on mastery vs rushing to teach the standard. Focused on deepening the concepts.

**Looking Forward**



**Rachel Bailey** May 17, 2023 at 2:09 PM

We must include more mathematical processes and leveled reading opportunities for struggling readers. Students should be consistently exposed to other subject areas and content that affected change in America and worldwide.

We can incorporate more multimedia dimensions and more hands-on activities to get all students involved. Understand and address learning styles to include visual and audio commentary. Students can use various materials in the classroom, and a choice board should be included along with a rubric to ensure understanding.



**Erica Pease** Oct 9, 2023 at 11:10 AM



Students did not retail the essential idea; we could have incorporated the key concept language stronger. Students never remember the central idea. We could over all focus on the language and tie it into SEL stronger.



**Erica Pease** Oct 9, 2023 at 11:12 AM

Next year maybe consider a choice board so students can choose between science and social studies. Students should have opportunity to authentically choose their topic/area of interest.

### Additional Subject Specific Reflections



**Rachel Bailey** May 17, 2023 at 2:13 PM

Students gained an understanding of early life in the colonies and gained more understanding about the Civil War and Reconstruction.

In science, we learned all about the weather, technology in astronomy, day and night and the solar system.

### Stream & Resources

#### Resources



**Niyka James**

Posted **photo** on Aug 31, 2021 at 3:37 PM

4\_IB\_Pics.PNG



**Note** posted on Aug 15, 2019 at 9:48 AM

#### Links to Rubrics for Projects: (You choose)

[https://www.researchgate.net/figure/Self-assessment-rubrics-used-with-a-wiki-based-project-to-assess-soft-skills\\_fig4\\_305849305](https://www.researchgate.net/figure/Self-assessment-rubrics-used-with-a-wiki-based-project-to-assess-soft-skills_fig4_305849305)

<https://www.schrockguide.net/assessment-and-rubrics.html>

<https://sites.google.com/a/k12.sd.us/k-clark-classes/home/multimedia/project-rubrics>

#### Book Study:

1) About Time: A First Look at Time and Clocks (This talks about the different technological advances in exploring astrology---sun, moon, stars, our calendar and etc...)



**Brainpops:**

**SPACE EXPLORATION Brainpop**

(43 different videos and 31 games) Here are a few.....

- 1) International Space Station
- 2) Space Flight
- 3) Solar System
- 4) Eclipse
- 5) Moon
- 6) Sally Ride

**MAP SKILLS Brainpop**

(9 videos)

1. Map Skills
2. Geography Themes
3. Latitude and Longitude
4. Compass

**Science and Social Studies Weeklies:**

**Science: Weeklies EARTH SPACE SCIENCE** (Weekiles 1, 7, 8 & 9)

- 1) Week 1 Earth Space Science - Shaping the Earth
- 2) Week 7 Earth Space Science - The Solar System
- 3) Week 8 Earth and Space Science - Earth's Place in the University
- 4) Week 9 Earth Space Science - Science and Technology

**Social Studies: Weeklies 1 -4**

- 1) Week 1: Picture the USA!
- 2) Week 2: Dividing the New World
- 3) Week 3: Trouble Brewing in the Colonies
- 4) Week 4: Mounting Tensions in the Colonies

**Readworks.org**

**Science:**

- 1) Scientific Method 5th grade
- 2) The Scientific Method 5th grade
- 3) How Did the Solar System Form? 4th grade
- 4) Getting to Know the Planets (Article a Day Set) 4th grade
- 5) Why is the Moon So Scarred with Craters? 4th grade
- 6) What Causes the Seasons? 4th grade
- 7) The Ever-changing Sky 4th grade
- 8) One Way to Find a Planet 4th grade
- 9) The Universe (Article a Day Set) 4th grade
- 10) Outer Space 4th grade (Article a Day Set) 4th grade
- 11) The Moon and the Sun (Article a Day Set ) 4th grade



[Readworks.org](https://www.readworks.org)

**Social Studies:**

- 1) [Life in the Colonies 4th grade](#)
- 2) [Colonization & Revolutionary War: Background to the Colonies 4th grade](#)
- 3) [Geography and the World 1st grade](#)
- 4) [North American Geography 2nd grade](#)