**Multi-Genre Integrated English Language Arts/Science Book Writing Unit**

(14 Days)

**By: Melissa Mendenhall**

**Grade Level(s)**

Grades 3-8

**Unit Overview**

**Purpose:** Students will gain a deeper understanding of the Science standards and the English Language Arts standards by synthesizing information learned in both to create multi-genre literary non-fiction books for an authentic audience, to engage the audience in the science concepts and to immerse them in a literacy-rich experience. (Students will research about a science concept. Then they will create a book that contains both informational and narrative text for a younger student by using the Design Thinking process.)

**Skills Utilized in the Unit:** (Prerequisite skills or skill to teach along the

way in this context)

• Preteach Science standards 1 & 2

• Narrative Story Structure

• Figurative Language

• Connotative Word Meanings

• Context Clues

• Genres of Fiction, Informational Text, Poetry

• Central Ideas, Supporting Details, Summary

• Text Features

• Text Structures

• Research Skills

• Writing Introductions, Transitions, Conclusions

• Writing to an audience

• Generating Questions

• Interviewing

• Multiple Perspectives

• Group Collaboration

• Design Thinking Process

**Standards**

**Common Core Standards for English Language Arts-**

RL.6.2, RL.6.3, RL.6.4, RL.6.5, RL.6.6, RL.6.9; RI.6.2, RI.6.3, RI.6.4, RI.6.5, RI.6.6, RI.6.7, RI.6.10; W.6.2, W.6.3, W.6.4, W.6.6, W.6.7, W.6.8, W.6.9, W.6.10; SL.6.1; L.6.3, L.6.4, L.6.5, L.6.6

**Next Generation Science Standards-**

MS-ETS1-1, MS-ETS1-4 or 3-5-ETS1-1, 3-5-ETS1-3

**Utah Core Science Standards for Sixth Grade-**

**Science Benchmark:**

The appearance of the lighted portion of the moon changes in a predictable cycle as a result of the relative positions of Earth, the moon, and the sun. Earth turns on an axis that is tilted relative to the plane of Earth's yearly orbit. The tilt causes sunlight to fall more intensely on different parts of the Earth during various parts of the year. The differences in heating of Earth's surface and length of daylight hours produce the seasons.

**Standard 1**

Students will understand that the appearance of the moon changes in a predictable cycle as it orbits Earth and as Earth rotates on its axis.

**Objective 1**

Explain patterns of changes in the appearance of the moon as it orbits Earth.

a. Describe changes in the appearance of the moon during a month.

b. Identify the pattern of change in the moon's appearance.

c. Use observable evidence to explain the movement of the moon around

Earth in relationship to Earth turning on its axis and the position of the

moon changing in the sky.

d. Design an investigation, construct a chart, and collect data depicting the

phases of the moon.

**Objective 2**

Demonstrate how the relative positions of Earth, the moon, and the sun create the appearance of the moon’s phases.

a. Identify the difference between the motion of an object rotating on its axis

and an object revolving in orbit.

b. Compare how objects in the sky (the moon, planets, stars) change in

relative position over the course of the day or night.

c. Model the movement and relative positions of Earth, the moon, and the

sun.

**OR**

**Standard 2**

Students will understand how Earth's tilt on its axis changes the length of daylight and creates the seasons.

**Objective 1**

Describe the relationship between the tilt of Earth's axis and its yearly orbit around the sun.

a. Describe the yearly revolution (orbit) of Earth around the sun.

b. Explain that Earth's axis is tilted relative to its yearly orbit around the

sun.

c. Investigate the relationship between the amount of heat absorbed and the

angle to the light source.

**Objective 2**

Explain how the relationship between the tilt of Earth's axis and its yearly orbit around the sun produces the seasons.

a. Compare Earth's position in relationship to the sun during each season.

b. Compare the hours of daylight and illustrate the angle that the sun's rays

strikes the surface of Earth during summer, fall, winter, and spring in the

Northern Hemisphere.

c. Use collected data to compare patterns relating to seasonal daylight

changes.

d. Use a drawing and/or model to explain that changes in the angle at which

light from the sun strikes Earth, and the length of daylight, determine

seasonal differences in the amount of energy received.

e. Use a model to explain why the seasons are reversed in the Northern and

Southern Hemispheres.

**Preparation**

See materials list.  Each student will need a copy of each organizer listed under the activity.

**Materials**

**Materials Book List:**

• Papa, please get the moon for me, by Eric Carle

• The Moon Book, by Gail Gibbons

• Poetry for Young People: Robert Frost, edited by Gary D. Schmidt, Scholastic

Inc.,

• Other possibilities for seasons: A True Book: Seasons, by Paul P. and Diane M.

Sipiera, Children’s Press & The Reasons for Seasons, by Gail Gibbon

**Activity 1-3:**

* **Narrative Story Structure\*** (See pages at the end of the unit plan)

**Activity 4-5:**

* Trade books, textbooks, library books on moon phases and seasons,or the Internet for student research

**Activity 6:**

* Younger grade clients to interview

**Activity 7:**

* See the following link for an explanation of each phase in the Design Thinking process (Activities 7-13): <http://dschool.stanford.edu/wp-content/uploads/2011/03/BootcampBootleg2010v2SLIM.pdf>

**Activity 8:**Chart paper to brainstorm for brainstorming

* Chart paper
* Possible post-its

**Activity 9-11:**

* Items from Creation Station located in the following link: <https://drive.google.com/folderview?id=0BwVyjhFeLv4YdHhjY3A5Z2NKUmc&usp=sharing>
* **\*\*Editing/Revising Checklist-Integrated Multi-genre Book** (See pages at the end of the unit plan)

**Activity 12-13:**

* **\*\*\*Reflection -Integrated Multi-genre Book** (See pages at the end of the unit plan)

**Activity I, 2, & 3- *Phase One: Background Information Suggested Time: 60 min. (Three 60 min. sessions)***

**Procedures: (What students Do)**

Dialogue to set up Design Challenge (purpose, audience):

The Design Challenge Statement-

Your challenge is to design and create a multi-genre book for second graders. Your purpose is to construct a reading experience where second graders are engaged in the book while also learning science concepts about moon phases or seasons through visual media and two

different literary genres.

**First Phase: Background Information**

Genre/Text Structure/Text Feature Review:

1. (Narrative) Using the **Narrative Story Structure Organizer\*** (See pages at the end of the unit plan), students analyze the book Papa, please get the moon for me, by Eric Carle in small groups.

2. Discuss as a whole group what the author’s purpose for writing the book is, what the theme of the book is, how is the book introduced, how the plot unfolds and elaborates, how the

characters respond to the changes in the plot, how the characters grow as the book comes to a resolution, and how the book concludes. Discuss the author’s choice of words, phrases, and

figurative language in the book and his possible reasons why.

3. (Informational Text) As a whole class read the book The Moon Book, by Gail Gibbons.

While reading discuss the text features in the book including visual text features and the text structure of the book.

4. As a whole class, discuss the author’s purpose in writing the book, what the central idea and supporting details are, how the book is introduced and elaborated, how the author conveys

vocabulary meanings, and how the book concludes.

5. (Poetry) As a whole class read selected poems from Poetry for Young People: Robert Frost, edited by Gary D. Schmidt.

While reading look at the figurative language used to create a mind picture or to set a tone. Look at the word choice, connotative meanings, and discuss reasons the author would make this choice. Discuss how the poem is introduced, elaborated, and concluded. Look at the structure and organization of the poems.

**Activity 4 & 5- *Phase Two: Research   
Suggested Time: 60 min. (Two 60 min. sessions)***

**Second Phase: Research**

1. Hand out a copy of the Science standards 1 & 2 included under the heading Standards of this unit plan to the students. Let them decide which standard they would like to design a book about.

2. Split the students up into design teams of 3-4 with all students on a team working on the same science standard.

3. Work with the students to turn each objective for their Science standard into a researchable question.

4. Students research using trade books, textbooks, library books, their science journals, or the Internet the questions assigned for their Science standard. Answer the questions.

**Activity 6-**Phase Three: Design Challenge (Empathy)

***Suggested Time: 60 min.***

**Third Phase: Design Challenge (Empathize)**

1. Design Teams create questions to ask their second grade client that cover:

* book preferences
* text preferences
* illustration preferences
* how they like to learn

2. Teams assign each member a job: Interviewer, Note Takers, Body Language Examiner, etc.

3. Teams conduct the interview with their client. (Interview take about 10 min.)

**Activity 7-**Phase Four: Design Challenge (Define)

***Suggested Time: 60 min.***

**Phase Four: Design Challenge (Define)**

1.     Teams meet together to create an Empathy Map for their client.

2.     Teams determine a Point of View (Needs) Statement for their client.

**Activity 8-**Phase Five: Design Challenge (Ideate)

***Suggested Time: 60 min.***

**Phase Five: Design Challenge (Ideate)**

1. Teams brainstorm as many ideas to meet the clients need as possible.

2. Teams cluster ideas into categories.

3. Teams narrow down ideas to the top three.

4. Teams decide which genre, narrative or poetry to use along with the informational genre based on the client’s needs and the team’s selected brainstorm ideas.

5. Teams decide what genre each member will be responsible to help complete as part of the whole book.  (The book will contain either a narrative story or a poem on the science content along with informational text to explain the science content.)

**Activity 9, 10, & 11-**Phase Six: Design Challenge (Prototype)

***Suggested Time: 60 min. (Three 60 min. sessions)***

**Phase Six: Design Challenge (Prototype)**

1. Teams spend time writing their narratives, poetry, informational text, and visual media like illustrations, info graphics, flow charts, diagrams, charts, etc.  (for narrative text use the **Narrative Story Structure\*** to help develop the story)

2. Teams use the **Editing/Revising Checklist\*\*** (See pages at the end of the unit plan)

  to edit each set of text together as a team.

3. Teams decide on the layout of the book and start their final copy.

(This could be done online on a student publishing site or could be done on copy paper and bound.)

**Activity 12 & 13-**Phase Seven: Design Challenge (Test)

***Suggested Time: 60 min. (Two 60 min. sessions)***

**Phase Seven: Design Challenge (Test)**

1. Teams test their prototype out on their client by having one member read the story to the second grader and discuss the book as they go along. Other team members record what the client says and does.

2. Team members meet together and share their experience in terms of the original Design Challenge Statement. Answer questions on the **\*\*\*Reflection -Integrated Multi-genre Book** (See pages at the end of the unit plan)such as:

* Was our client engaged in the book and experience? How?
* What science concepts did our client learn?
* What evidence do we have to support our answer?
* How did our client react to the narrative or poetry text?
* What evidence do we have?
* How did our client interact with the informational text?
* What evidence do we have?
* How effective were our illustrations at creating an experience with literacy and science for our client?
* What evidence shows this?
* Any other observations?

3. Revisions- What can we do to better meet our client’s needs in addressing the Design Challenge Statement?

4. Make revisions

**Activity 14-**Public Sharing

***Suggested Time: 60 min.***

Each team member takes turns reading the team book with different second graders and gives the book to the second grade teacher for take home reading checkout.

**Assessment-**

Use the \*\***Editing/Revising Checklist** and the **\*\*\*Reflection -Integrated Multi-genre Book** to assess how well students met the criteria listed in the original Design Challenge:

**Dialogue to set up Design Challenge (purpose, audience):**

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different literary genres.

Name:

**Narrative Story Structure\***

Title:

**Beginning (Status Quo)-What is it like before the problem?**

Character:

Traits:

Appearance:

Character:

Traits:

Appearance:

Character:

Traits:

Appearance:

Setting:

**Middle (Scenes-Changes in place or time, Plot-Problem/Sequence of Events)-**

Problem:

Sequence of Events:

**End (Resolution)-How is the problem resolved? How do the characters change as a result?**

Resolution:

Resulting change in character(s): Justify with examples from the text

What was the point of view (perspective) of the narrator?

Explain how an author develops the point of view (perspective) of the narrator or speaker in the text using examples from the text to justify your answer:

Theme:

Justify the theme using examples from the text:

What is the most important event in the text?

Why is this event so important? Justify by using examples from the text:

**\*\*Editing/Revising Checklist-Integrated Multi-genre Book**

**Name/Design Team:**

**Title:**

**Text Genre:**

|  |  |
| --- | --- |
| **Skill** | **Explanation** |
| Have we given our book a title? |  |
| Did we circle at least five words that look wrong and find the correct spelling? |  |
| Did we indent each  paragraph? |  |
| Are all of our sentences complete sentences? |  |
| Did we begin each  sentence with a capital? |  |
| Did we end each sentence with the proper punctuation? |  |
| Have we use capital  letters for proper nouns? |  |
| Did we reread the  text to see if it makes  sense? |  |
| Did we check the commas to make sure they are in the correct places? |  |
| Did we provide context clues for all vocabulary words? |  |
| Does the text have an  introduction? |  |
| Does the text have  elaboration? |  |
| Does the text have  transitions? |  |
| Does the text have a  conclusion? |  |
| Did we attach the  Narrative Story Structure to this form for narrative text? |  |
| Are the word choices  appropriate for our client? |  |
| Did our team address  this aspect of the  Design Challenge Statement: Engaging? |  |
| Did our team address  this aspect of the Design Challenge Statement: Science Concepts? |  |
| Did our team address this  aspect of the Design Challenge Statement: Two  Genres and Visual Media? |  |
| Did our team address  this aspect of the Design Challenge Statement: Ability to create an experience for the client? |  |

**\*\*\*Reflection -Integrated Multi-genre Book**

Name:

Design Team:

Title:

|  |  |  |
| --- | --- | --- |
| Reflection Question: | Answer: | Evidence to support answer: |
| Was our client engaged  in the book and the  literacy experience? |  |  |
| How did our client react  to the narrative or poetry text? |  |  |
| How did our client  interact with the  informational text? |  |  |
| How effective were our  illustrations at creating  an experience with  literacy and science for  our client? |  |  |
| Any other observations? |  |  |
| **Revisions:**  What can we do to better  meet our client’s needs  in addressing the Design  Challenge Statement? |  |  |