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2020-2021

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Life on Mars from a Kid's Perspective

Life on Mars: From a Kid's Perspective

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GOALS AND OBJECTIVES

Source of Idea:

Last year, I submitted an Innovator grant named "Life on Mars: From a Kid's Perspective." Due to much success, I'd decided to develop it further and complete a disseminator grant based on the former grant. My goal is to extend this grant to other teachers who are interested in keeping the interest of students while meeting the standards, especially ELA and Science teachers.

During my 12 years of teaching, I've noticed numerous students of various grade levels have confessed they've had trouble with keeping interest in school subjects, especially Reading and Science. Many times, the teacher chooses topics of interests versus allowing students to choose topics of interest. Last year, I've observed my fifth graders wearing NASA sweaters and NASA stickers on their notebooks. I'd thought to myself, "Is NASA a trend now? Is this what the students are into? Science, solar systems, space, non-fiction, and sci-fi (science fiction)? This is when I had an Aha-moment. What if I was able to develop a Reading or Science unit that combines fiction and non-fiction texts related to space? Will I be able to include NASA books, stories based on Mars (fiction), and other topics of interests that are tied to the standards? Also, will I be able to integrate technology and take virtual field trips, especially during the pandemic quarantine of Covid-19 where field trips may not be an option.

In 2013, I visited the Kennedy Space Center in Florida for the first time. I fell in love with the wonders of space. In the month of September, I also decided to visit Kennedy Space Center to continue to learn about the future exploration of Mars. I was able to talk to an astronaut and NASA experts to further investigate the future Mars mission. Eventually, I would like to include a field trip to the Kennedy Space Center for the students.

(Picture taken with astronaut Wendy Lawrence at Kennedy Space Center, 2013)

GOALS AND OBJECTIVES (CONTINUED)

THE RESULTS ARE IN! (WHEN THE GOALS AND OBJECTIVES HAVE BEEN MET):

My morning ELA (English/Language Arts) class had an average score of 74% on their Reading assessment and my afternoon class had an average score of 60%. After implementing "Life on Mars: From a Kid's Perspective," unit, my morning class received an average score of 85% and my afternoon class earned a 73% on their reading assessments for the next unit. In other words, in a matter of 2 weeks, there was an 11% increase in the morning class and a 13% increase in my afternoon class! Furthermore, students started to read ahead, show signs of increased motivation and interest, and actually wanted to do more collaborative work than individual work. Not only have students' academic scores increased, but also their motivation to attend class has increased; Attendance has increased! Their motivation to read, ask questions, attend virtual fieldtrips, and engage in collaborative projects have also increased.

LANGUAGE ARTS STANDARDS

LAFS.5.RL.1.1 Quote accurately from a text when explaining what the text says explicitly and when drawing inferences from the text.
LAFS.5.RL.1.2 Determine a theme of a story, drama, or poem from details in the text, including how characters in a story or drama respond to challenges or how the speaker in a poem reflects upon a topic; summarize the text.
LAFS.5.RL.2.6 Describe how a narrator's or speaker's point of view influences how events are described.
LAFS.5.RF.4.4 Read with sufficient accuracy and fluency to support comprehension. a. Read on-level text with purpose and understanding
LAFS.5.SL.1.1 Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 5 topics and texts, building on others' ideas and expressing their own clearly.
LAFS.5.L.3.5 Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.

SCIENCE STANDARDS:

SC.5.E.5.2 -Recognize the major common characteristics of all planets and compare/contrast the properties of inner and outer planets.

SC.5.E.5.3-Distinguish among the following objects of the Solar System -- Sun, planets, moons, asteroids, comets -- and identify Earth's position in it.

COURSE OUTLINE/OVERVIEW

Have you ever wondered how life on Mars would be like? Why is there consideration for life on Mars but not other planets like Saturn? The students will build up prior knowledge on this topic. They will be taken on a journey to Mars and will describe their experiences (as one of the first children to live on Mars) based on background knowledge, reflective writing, virtual fieldtrips, and higher thinking critical skills. Research shows that the human population is estimated to multiply in the future to the point where they may need to search for other places for human civilization besides Earth. Furthermore, scientists are currently thinking of new ways to supply the demand of food in order to feed the masses. For example, introducing new foods, such as insects, to the United States and listing them as "edible" will be one of the futuristic goals of the federal government. Why is this important? By the year 2023, NASA is planning a trip to Mars because Earth will be closest to the red planet. This generation will witness the U.S landing on Mars and how setting up vegetation on Mars is already being planned for future living.

This project emphasizes on conflict resolution and allows students to think critically how life would be like on Mars and whether they would like to live on Mars. This project is innovative because it combines how their life would be on Mars (before, during, and after structure). It includes factual information about NASA and Mars through the use of non-fictional text. It also includes fictional text (Science Fiction/Realistic Fiction) through the use of two stories. By combining fictional and non-fictional text, it maximizes the students' learning potential through different perspectives presented in these resources. Students will be able to think critically if they were to prepare to live on Mars (before, during, and after process). Students will prepare for life on Mars by building background knowledge. They will read What is Nasa? by Sarah Fabiny and Mars by Elizabeth Carney. Then, they would visualize and write about their experiences on Mars and read Mars: National Geographic Kids by Elizabeth Carney . Students will be reading the following books to get a glimpse of how their lives would be like on Mars: Life on Mars by Jon Agee and You are the First Kid on Mars by Patrick O' Brien. After their life on Mars, students will reflect by writing whether or not they would like to actually live on Mars if given the choice.

Suggested collaborative learning and projects
ELA Reflective Writing
Reading Fiction vs. Non-Fiction Texts
Computer Lab: NASA website, Virtual Field Trips
As a STEM school, it meets the requirement of STEM instruction and also the Science standards regarding the solar system. It also meets the ELA standards for 4th grade.

Course Flexibility:

Can "Life on Mars: From a Kid's Perspective" unit plan be used in various grade levels/subjects?
The good news is that "Life on Mars: From a Kid's Perspective" unit plan can be implemented not only in ELA, but other areas such as Social Studies or Science. It meets the STEM requirements. This course can also be used in different grade levels depending on the book choice. For example, it can be used in middle school or primary grade levels if other books are used that are related to current material. For the younger grades, youtube has uploaded these same books which is good for ESOL learners, visual/audio learners, and primary grades.

MATERIALS

Low-End Estimate: $532.11 for 10 books each
High-End Estimate: ~$1,000 for more than 10 books each
Materials needed are the following:
Although I have 20 students in my class, I am requesting 10 copies of each book in order to encourage cooperative learning (one copy will be assigned to a pair of students)
1. What is Nasa? By Sarah Fabiny (Where: Amazon, Quantity: 10, Cost of each item: $5.46)
2. Mars: National Geographic Kids by Elizabeth Carney (Where: Amazon, Quantity: 10, Cost of each item: $3.99)
3. Life on Mars by Jon Agee (Where: Amazon, Quantity: 10, Cost of each item: $13.79)
4. You are the First Kid on Mars by Patrick O' Brien (Where: Amazon, Quantity: 10, Cost of each item: $17.99)
5. Headphones for audio portion of project/technology/computer lab (covers ESOL accommodations that include audio/visuals) : (Where: Amazon, Quantity: 20, Cost of each item: $5.99)

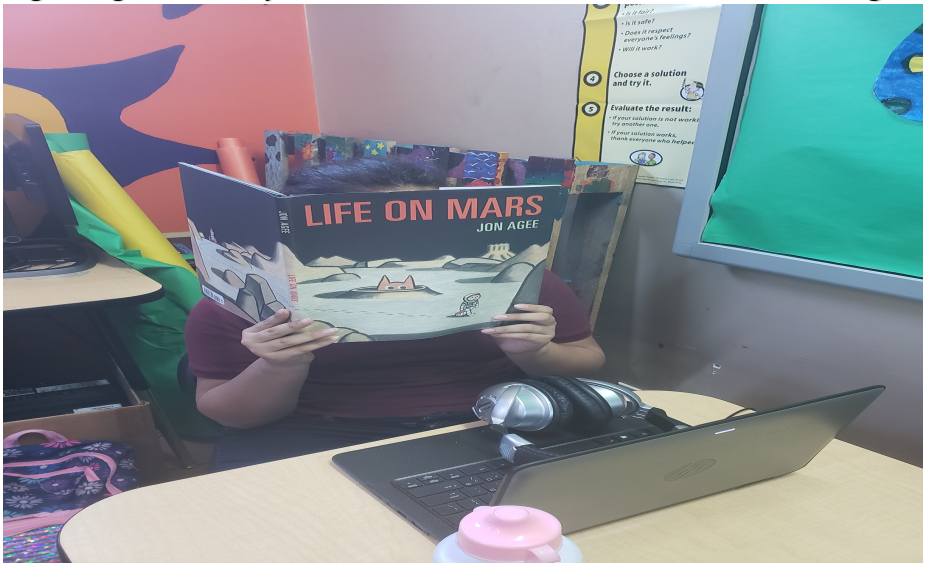
TOTAL: $532.11 (if teacher has headphones or student provides their own headphones, then it would be less
money)

SAMPLE LESSON PLANS AT A GLANCE

January: PHASE 1: PREPARE FOR BLAST-OFF!:
Watch/discuss YouTube video: "Mission To MARS! 15-Year-Old Alyssa Carson Could Be The First Human On Mars"
https://www.youtube.com/watch?v=9ychKZIG8ms&t=357s
Read/discuss What is Nasa? by Sarah Fabiny

February: PHASE 1: PREPARE FOR BLAST-OFF! (continued): Read/discuss Mars: National Geographic Kids
by Elizabeth Carney
March: PHASE 2: BLAST-OFF!: Read/discuss Life on Mars by Jon Agee
April: PHASE 2: BLAST-OFF! (continued): Read/discuss- You are the First Kid on Mars by Patrick O' Brien
May: Virtual Field Trips using Discovery Ed. Website and www.NASA.gov
June: PHASE 3: THE AFTER-MATH: Writing Reflection/journaling: Would you live on Mars if you were
given the choice? What would be the pros and cons of living on Mars? What was the experience like? (what did you see? Hear? Eat? Touch?)
Combination of formal/informal assessments: Student work, collaborative projects/reading/discussions/participation, student reflective writing, Reading comprehension teachermade tests, etc

SUGGESTED ACTIVITIES
Collaborative learning and projects
ELA Reflective Writing
Reading Fiction vs. Non-Fiction Texts
Computer Lab: NASA website, Virtual Field Trips
As a STEM school, it meets the requirement of STEM instruction and also the Science standards regarding the solar system. It also meets the ELA standards for 4th grade.



SAMPLE LESSON PLAN #1:

WE DO: Read *You Are the First Kid on Mars* by Patrick O' Brien.

I DO: Brainstorm my thoughts on how it might be living on Mars (graphic organizer)

YOU DO:
Sample Writing Reflection Activity: Write an opinion essay on whether or not living in Mars would be a good or bad idea

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SAMPLE LESSON PLAN #2:

WE DO: Read *Life on Mars* by Jon Agee

I DO: Brainstorm key details in the text that support the story's theme (plot chart- graphic organizer)

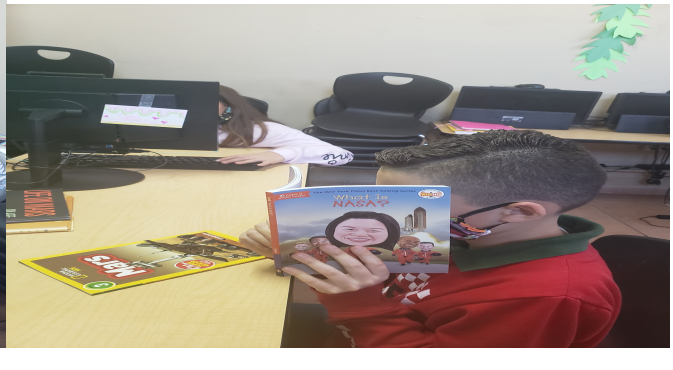
YOU DO: Determine the theme of the story using the supporting details in the text (plot chart- graphic organizer)

SAMPLE LESSON PLAN #3:

WE DO: Read *What is NASA? (What Was?)* by Fabiny, Sarah

I DO: Sequence: Timeline of NASA; Begin timeline of NASA on pp. 104-105 ("1957- Russia puts the first man-made satellite into orbit, 1958- The United States launches a man-made satellite into orbit/NASA begins operation," etc)

YOU DO:
-Complete timeline of NASA
-Collaborative Student Poster Project:
Each group (4 to 5 students each) will pick a major event from Timeline of NASA including details, pictures/images/photos, important people, quotes, etc and will present it to the class. After all groups present, each poster will be added to the wall of NASA timeline in the classroom to see the sequence



REFERENCES

Agee, Jon (2017). *Life on Mars*. New York: Dial Books

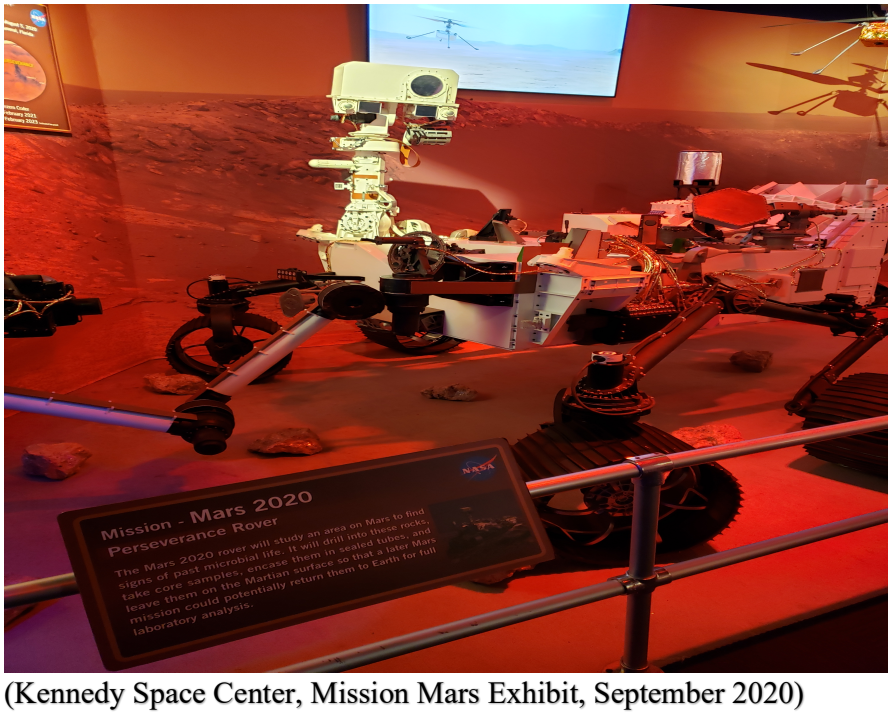
Carney, Elizabeth. (2014). *National Geographic Readers: Mars*. New York: National Geographic Children's Books

Fabiny, Sarah. (2019). *What is NASA? (What Was?)*. New York: Penguin Workshop.

O'Brien, Patrick (2009). *You Are the First Kid on Mars*. New York: G.P. Putnam's Sons Books for Young Readers

RESOURCES INTERNET SITES

https://books.apple.com/us/book/you-are-the-first-kid-on-mars/id1110222292 (cover photo credit)



(Kennedy Space Center, Mission Mars Exhibit, September 2020)