Title: The Stars of the Underground Railroad

Topic: Science & Social Studies: How the North Star was crucial to the Underground Railroad

Subject/Course: <u>ELA/Social Studies/Science</u>
Grade: <u>6th</u>
Designer: <u>Dr. K Greene</u>

Stage 1 – Desired Results

Established Goal(s)

BIG IDEA(s) & TRANSFER

Common Core - 3 base strands:

∨ <u>Reading Focus</u> CCSS.ELA-Literacy.RI.6.3

Analyze in detail how a key individual, event, or idea is introduced, illustrated, and elaborated in a text

v History/SS

CCSS.ELA-Literacy.RH.6-8.3

Identify key steps in a text's description of a process related to history/social studies

∨ <u>Integration Focus</u> <u>CCSS.ELA-Literacy.RH.6-8.7</u>

Integrate visual information (e.g., in charts, graphs, photographs, videos, or maps) with other information in print and digital texts.

∨ <u>Science Focus</u> <u>CCSS.ELA-Literacy.RST.6-8.2</u>

Determine the central ideas or conclusions of a text; provide an accurate summary of the text distinct from prior knowledge or opinions.

Students will be able to independently use their learning to ...

*Describe in at least 4 specific details HOW/WHY the North Star played an important role in the success of the Underground Railroad before and throughout the Civil War.

*Create a presentation that enables all members of a team to meaningfully engage in researching, drawing conclusions from multiple resources, and communicate the findings into a single demonstration of understanding.

Big idea(s)

*Science isn't an isolated subject of study but is an integrated part of human history that empowers people to do extraordinary things.

*Working collaboratively allows everyone to learn and understand more than they could if they worked all alone.

Meaning

ENDURING UNDERSTANDINGS

Students will understand that...

*Americans of all levels of education and ability came together to try to help slaves in the South escape to the North where they would be free.

*Scientific knowledge was crucial to the success of the Underground Railroad conductors (especially Harriett Tubman)

ESSENTIAL QUESTION(s)

Students will keep considering, reflect upon...

*How can people overcome a lack of education to accomplish great deeds?

*What kinds of things can motivate people to put themselves in danger to help others?

*How does science integrate into everyday life – both in normal situations and in extraordinary situations?

Acquisition of Knowledge & Skill

Students will know...

*What the Underground Railroad actually/specifically was (a clear definition)

*How conductors (especially former slaves- such as Harriet Tubman) were able to navigate at night from the South to the North

*Why the North Star is such a special celestial body for humans because of its stability in "our sky"

*How a basic understanding of astronomy has empowered humans for centuries Students will be skilled at...

- *Culling together facts from seemingly disparate areas of study to form a cohesive, "Big Picture" understanding of an important event
- *Sharing knowledge gained from multiple resources with "research group peers" to afford greater understanding from the collaboration experience
- *Assessing the value of knowledge gained through the sorting and ranking of specific concepts to be shared with peers outside of one's research group
- *Collaborating to communicate shared knowledge and understanding in more than one modality (text, verbal presentation, video, ...)

Stage 2 –Evidence	
Evaluative Criteria	Assessment Evidence
 Individual: 5 "key findings" per student are IMPORTANT facts from the resources – not extraneous fluff Group: 10 "key findings are IMPORTANT facts from the resources – not extraneous fluff Individual: Each student will have a minimum of 3 meaningful additions or edits to the Group doc Each student will personally engage with at least 1 appropriate statement, comment, artifact, or 	PERFORMANCE TASK(s) 1. Each student will have an individual Google doc where they will list the key findings from all their individual research from the given materials – a minimum of 5 "key findings" per student 2. Each team will then combine their individual findings into a single Google doc that is then boiled down to single list of the teams 10 "key findings" – 5 from class sources and 5 from their own additional research from the bank of "approved resources" 3. Each student will engage in the filling out of the Group doc with text (on the doc or in comments and edits) and specific relevant resources/links 4. Each student will participate in the group's "pitch meeting" with the "News Director" (teacher) as to their plans for their "newscast" where they will share their findings on the role "science" played in this important part of American history (using the presentation rubric as their guide). 5. The group newscast will feature each student in at least 1 segment that presents HOW the science of understanding navigation using stars (specifically calling out the North Star) was important to the successful conducting of the Underground Railroad
response to a question in the meeting. 5. The team meets each criterion on the rubric for the presentation (newscast) – see rubric for specifics 6. Post-Project Reflection	OTHER EVIDENCE: A, B, & C components *individual journaling- with specific prompts- that tracks student "time on task" and his/her thoughts, feelings, and questions throughout the process (A, B, & C *mini check-in quizzes to ensure students are understanding the material C *exploration paper after working with The Underground Railroad: Journey to Freedom app A, B, & C

Stage 3 – Learning Plan

Pre-assessment

*Initial Journal work with a K-W-L chart first done solo and then group- then whole class

LEARNING EVENTS

paper

Consider the W.H.E.R.E.T.O. elements and the A, B, C's

- Introduction to unit (show Epic Rap Battles Science vs Social Studies, YAP videos, Kid News), Teams selected, Norms set (team contracts) – A, B, & C
- Broad Individual Research I Google doc where they will list the key findings from all their individual research from the given materials – a minimum of 5 "key findings" per student on Underground Railroad A, B, & C
- Broad Individual Research I Google doc where they will list the key findings from all their individual research from the given materials – a minimum of 5 "key findings" per student on Stars & Celestial Navigation B & C
- 4. Each team will then combine their individual findings into a single Google doc that is then boiled down to single list of the teams 10 "key findings" (5 Underground RR and 5 Celestial

Important Resources:

- 1) Kids Discover (My Classroom)
- a. Escape

*self-assessment rubric completion B & C

- b. North to Freedom
- c. Civil War Notables
- d. Heroes and Helpers
- e. Telescopes and Discovery
- f. Galactic Myths and Legends
- g. The Relationship Between Earth and the Sun
- h. What's in the Sky Above
- 2) Science vs SS Rap Battle:

https://www.youtube.com/watch?v=jxfPKeUEjPg

- 3) The Underground Railroad Connections to Science and Freedom: https://vimeo.com/6123905
- 4) YAP! "The North Star Journey" YouTube videos
- a. SNEAK PEAK
- b. Episode 2

- Navigation) from their own additional research from the bank of "approved resources" A, B, & C
- Each student will engage in the filling out of the Group doc with text (on the doc or in comments and edits) and specific relevant resources/links A, B, & C
- 6. Each student will participate in the group's "pitch meeting" with the "News Director" (teacher) as to their plans for their "newscast" where they will share their findings on the role "science" played in this important part of American history (using the presentation rubric as their guide). A, B, & C
- 7. The group newscast will feature each student in at least 1 segment that presents HOW the science of understanding navigation using stars (specifically calling out the North Star) was important to the successful conducting of the Underground Railroad (WHERE TO activity- RUBRIC) B & C
- 8. Team debriefs after newscasts A, B, & C
- 9. Individual reflection paper (RUBRIC) A, B, & C

- c. Episode 8
- d. Episode 10
- 5) Children's Center News Collaborative Filmmaking:

https://www.youtube.com/watch?v=NvysirTwfaQ

- 6) Kids Discover- App: Geography (iPad)
- 7) Kids Discover- App: Galaxies (iPad)
- 8) Nat Geographic App: The Underground

Railroad: Journey to Freedom (iPad)