

Weekly learning plan for week of August 24 and 31.

NOTE! Clark will start with the Weekly Learning plan constructed by faculty at Redwood High School since this is their second year teaching it. I will also be leveraging the ideas and lesson plans from other teachers at Drake and around the district. In other words, plans may change as I weigh the merits of each lesson and activity. But this is a place to start.

Thanks!

Barton Clark.

Teacher:	Period:	Learning Management:
Barton CLark	2, 3 and 4	Canvas and Clarkrules.com
Subject:	Grade:	Date:
Physics in the Universe	9/10	8/24 - 8/28

Learning Goals/Standards

HS-ESS1-2: Construct an explanation of the Big Bang theory based on astronomical evidence of light spectra, motion of composition of matter in the universe.

SEP: Construct an explanation based on valid and reliable evidence obtained from a variety of sources (including students theories, simulations, peer review) and the assumption that theories and laws that describe the natural world operate today past and will continue to do so in the future. (HS-ESS1-2)

CC:

- Energy cannot be created or destroyed—only moved between one place and another place, between objects and/o systems. (HS-ESS1-2)
- Scientific knowledge is based on the assumption that natural laws operate today as they did in the past and they w in the future. (HS-ESS1-2)
- Science assumes the universe is a vast single system in which basic laws are consistent. (HS-ESS1-2)

Essential Questions

How was the universe created?
 What evidence do we have that the universe started with a Big Bang?
 What are the general properties of the universe?

Students will understand, know, and/or be able to do...

- The universe started as a singularity and underwent a rapid expansion
- Originally the universe was full of energy which gradually became matter
- the universe continues to expand outward to this day

Week of: 8/24-28	Monday	Tuesday/Wednesday	Thursday/Friday
Learning Activity	1-review the weekly learning plan - What	1-Big Bang warm-up: The Beginning of Everything	1-Warm-up: Padlet homework review

	<p>is the Big Bang</p> <p>2-Big Bang Brainstorm - what one word comes to mind when you think "Big Bang"</p>	<p>2-Big Bang Slideshow</p> <p>3-Big Bang Exit Ticket</p>	<p>2-Big Bang Article and Reading Guide</p> <p>3-Major events after the Big Bang (handout)</p>
Assignment Details	<p>2-Enter PollEverywhere and add to the Word Cloud about what one word comes up when you think "Big Bang". Class will review the posts and discuss which are true and which are misconceptions</p>	<p>1-Watch The Beginning of Everything by In a Nutshell and complete a Google Form for your 3-2-1 Summary (3 facts, 2 things that interested you, and 1 interpretive question)</p> <p>2-Go through the Big Bang slideshow and answer the questions as they appear on the screen.</p> <p>3-In breakout groups, find one image from the internet that represents what you learned about the Big Bang and write a brief explanation of that image using the language we learned in the slideshow.</p>	<p>1-enter the class Padlet and write one question that you still have about the Big Bang. This can be a clarifying question or just a question about something you are curious about.</p> <p>2-Read the Exploratorium article on the origins of the Universe and complete the accompanying reading guide</p> <p>3-Using your slideshow notes and your article questions, create a visual timeline of the evolution of our universe from the Big Bang until today.</p>
Estimated Work Time	<p>1-10 minutes</p> <p>2-20 minutes</p>	<p>1-30 minutes</p> <p>2-30 minutes</p> <p>3-10 minutes</p>	<p>1-10 minutes</p> <p>2-30 minutes</p> <p>3-30 minutes</p>
Assignment Due Date/Location	<p>2-Discussion finished by the end of the period</p>	<p>1-by the end of the 20 minutes</p> <p>2-by the end of the 30 minutes</p> <p>3-before you leave class</p>	<p>1-in class</p> <p>2-in class</p> <p>3-August 31</p>
Material/Support Needed	<p>1-weekly learning plan</p> <p>2-PollEverywhere</p>	<p>1-YouTube, Google Forms</p> <p>2-Google Slides, Peardeck</p> <p>3-Google Slideshow</p>	<p>1-Padlet</p> <p>2-Article, notes page</p> <p>3-Major events handout</p>

Evidence of student understanding and their ability to use (transfer) their learning in new

Ability to understand the beginning, growth, and current state of the universe in order to evaluate evidence for a