

Lesson Plan Title

Our Understanding of the Universe Reader's Theatre

Grade Level

6th Grade

Subject Area

Science

MSCCRS

E.6.8.1 Obtain, evaluate, and summarize past and present theories and evidence to explain the formation and composition of the universe.

E.6.8.3 Evaluate modern techniques used to explore our solar system's position in the universe.

Art Form

Theatre

MSCCR Creative Arts Standards

TH: Pr4.1.6 Select, analyze and interpret artistic work for presentation.

b. Experiment with various physical choices to communicate character in a drama/theatre work.

TH: Pr6.1.6 Convey meaning through the presentation of artistic work.

a. Adapt a drama/theatre work and present it informally for an audience.

Duration

45 minutes

Materials

Reader's Theatre Script: https://drive.google.com/drive/folders/1UX6qc7xM_LTgxFPC4-byJjbnE2u0u_hH?usp=sharing

Printed scripts for each student

Highlighters

Objectives

Students will perform a reader's theatre script based on the evolution of our understanding of the universe.

Students will discuss how and why our understanding of the universe has changed throughout history.

Vocabulary

Science vocabulary

Geocentric model

Heliocentric model

Solar system

Galaxy

Universe

Theatre vocabulary

Monotone

Inflection

Expression

Lesson Description

1. Begin the lesson by asking students for their prior knowledge regarding our understanding of the universe. Ask questions such as
 - Throughout history, has human understanding of the universe changed over time?
 - Why might there have been misconceptions about the universe thousands of years ago?
 - What changes have occurred to help us understand more about the composition of our universe?
2. Explain to students that the bulk of today's lesson will be a reader's theatre. For classes who have not participated in a reader's theatre before, stress that there is nothing to memorize. Students will be able to read from their scripts; however, it is still important to be expressive and use appropriate inflections.

Mini-lesson on expression and inflection:

 - Use a monotone voice to say, "The universe is full of incredible phenomena." Have students repeat after you, using the same monotone voice.
 - Now use an expressive voice with appropriate inflections to say, "The universe is full of incredible phenomena!" Have students repeat in the same way.
 - In monotone: "Did you know that the universe is made of trillions of solar systems in trillions of galaxies?" Students repeat.
 - Now repeat the same words but in an expressive voice. Have students repeat.
 - Ask students for their input on why an expressive voice is important when reading and acting. Appropriate answers include: it makes it more interesting to listen to, it is easier to understand, etc.
3. Allow students to practice the script once to become familiar with any words, phrases, gestures, etc. that may be unfamiliar to them. Facilitate by giving guidance and corrections as needed, but keep in mind that the reader's theater does not need to be perfectly executed. It should not be a stressful activity for students.
4. Once students are comfortable with the script, have them complete a full run-through of the script.

5. After the performance, discuss with students what they learned about the evolution of our understanding of the universe. Go back and revisit questions from earlier in the lesson.
 - Throughout history, has human understanding of the universe changed over time?
 - Why might there have been misconceptions about the universe thousands of years ago?
 - What changes have occurred to help us understand more about the composition of our universe?

Recommended Resources

History of Our Understanding of the Universe:

https://starchild.gsfc.nasa.gov/docs/StarChild/universe_level2/cosmology.html

Reader's Theatre PDF (to print):

<https://drive.google.com/file/d/1boyaMNLf8htfBEbRFatXSCMVL-oZDiD/view?usp=sharing>

Reader's Theatre Word Document (to edit):

<https://drive.google.com/file/d/1oTRIRALY7e4e07dBcSz-Z36pSg bj7q2N/view?usp=sharing>

Extended Learning Activities

Allow students to write their own short scripts detailing conversations between the scientists. Encourage them to think about how these scientists might learn from each other and include that in their writing.

Sources

N/A

Tips

1. The script includes parts for 19 students. However, there are parts where the entire audience joins in, so each student will get to play at least a small role in the performance, even if they do not have an assigned speaking part.
2. If you have fewer than 19 students participating, multiple audience members can be played by the same student.
3. Larger, more complex speaking roles: Host, Einstein, Hawking
4. Smaller, less demanding speaking roles: Audience members
5. If you choose, you can have the non-speaking students hold up props (models of the geocentric and heliocentric solar system, pictures of galaxies, etc.) while the scientists are talking about them.

Author

Paige Satcher