Explain a Scientific Concept

SCIENCE

Overview

Students create an educational video explaining a scientific concept, demonstrating their understanding while practicing science communication skills.

Steps for Teachers

1. Assign or let students choose a scientific concept from current curriculum
2. Students research the concept and identify key points to explain
3. Students plan how to visualize the concept (what characters/objects to use)
4. Students write a script that explains the concept in simple terms
5. Students create characters that can demonstrate the concept (e.g., molecules, planets)
6. Students record their explanation with clear visuals and narration
7. Have students quiz each other based on the videos

Example

> *A student explains the water cycle. Characters include Wally the Water Droplet and Sally the Sun. Wally starts in the ocean: 'I'm just floating here when—whoa! Sally's heat is making me rise!' He becomes vapor, rises to form a cloud, and says, 'It's cold up here! I'm condensing with my friends!' The droplets fall as rain, flow into a river, and return to the ocean. 'And the cycle starts again!'*

Grading Rubric

Criteria	Excellent	Proficient	Developing
Scientific Accuracy	All information is correct; uses proper terminology	Mostly accurate with minor errors or omissions	Contains significant scientific errors
Clarity of Explanation	Complex concept made understandable; great for teaching others	Explanation is clear but could be simpler	Explanation is confusing or too complicated
Visual Representation	Visuals effectively illustrate the concept	Visuals support the explanation adequately	Visuals don't help explain the concept
Engagement	Makes science interesting and memorable	Reasonably engaging presentation	Dry or boring; won't help viewers remember