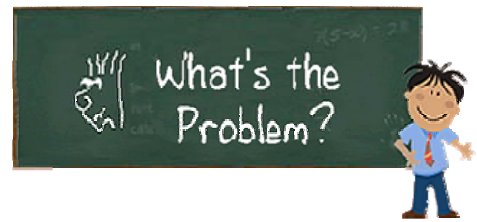


Teacher Instructions:



Problem Scenario: “A Timely Change”

The Main Problem:

The modern calendar (known as the “Gregorian Calendar”) is not set in stone. It was developed after centuries of scientific observation and trial and error. It’s still not perfect. Simpler and more uniform calendars—such as the “International Fixed Calendar”—have been proposed. Would it be a good idea to improve our calendar, and what would be the issues involved?

Your students will be viewing this problem from an **integrated** perspective.



Should we reform the calendar?

Students will review our current calendar, including its pros and cons. They will also review alternative options, and decide if they are practical.

Step ①

**Review
Stimulus
Items**

Stimulus Item #1 — “Switching to our Modern Calendar” (video)

Stimulus Item #2— Gregorian Calendar—Pros & Cons (Lists)

Stimulus Item #3— “The International Fixed Calendar” (Article)

A low-readability option has been provided so students in lower grades can participate in this problem scenario

ALTERNATE Stimulus and Activity for Lower Grades —

“What is the Gregorian Calendar ” (article to be read aloud)

***Students should take notes as they review the Stimulus Items*

Step ②

**Classroom
Discussion**

Lead a **class discussion** about issues related to the topic. You are being provided a sheet to help you guide the classroom discussion.

Step ③

**Student
Response**

Extended Responses: Have students answer the following questions. Remind students to use information from the Stimulus Items to support their response.

- 1. What would be the issues involved if we were to make changes in our modern calendar?**
- 2. Is it time to reform our modern calendar? What are the main reasons why or why not?**

****students should have access to their notes as they enter their answers*

****students may also have access to the Stimulus Items as they enter their answers*

EXTENDED PRODUCT (Optional): Divide your students into groups who have been assigned a top-secret project. The United States has plans to establish a colony on another planet, and it has become apparent that the calendar we use on Earth will be useless there. The groups must **list the factors** that they need to consider as they **develop a calendar for another planet**. What do they need to keep in mind (i.e. length of days, months, and years; the cycle of the seasons; the revolution and rotation of the planet; etc.)? How have these same considerations shaped calendars on our planet?

Step ④

Analysis

Rubrics to grade student entries have been provided, and all questions have been mapped to the content standards.