

Leap Year Lesson
Vicki Chandler, M. Ed.

The once-in-four-years date is quickly approaching. Here's a lesson designed to teach the concept and also celebrate leap year.

Introduction:

This science lesson (leap year) demonstrates how to convey the concept of a leap year in pictures (as a graphic representation). One full day is depicted as the total of four years - three years of 365 days, followed by a year of 366 days. The four rectangles reinforce the concept that it actually takes the earth $365 \frac{1}{4}$ days to revolve around the sun.

Benefits of the Activity:

- Movement: student volunteers will demonstrate why an extra day is needed in our calendar every four years.
- Concept Card: The simple art activity (involving cutting and gluing) reinforces the concept that four quarters of a day equals one whole day.
- Math Reinforcement: The activity reinforces the addition fact $\frac{1}{4} + \frac{1}{4} + \frac{1}{4} + \frac{1}{4} = 1$
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Target Grades:

1st – 3rd

Supplies:

- Twenty nine cards with the number 29 on each
- “Leap Year Concept Card” developed by Vicki Chandler, M. Ed.
- A picture of the sun
- A globe
- Students’ glue and scissors
- One piece of construction paper for each student
- Optional: plastic frogs that make a sound when squeezed

Goals:

- Students will explain that a leap year happens every four years.
- Students will explain that a leap year happens because the earth revolves around the sun slightly more than 365 days each year.
- Students will show that four equal parts equals one whole (four quarters of a day equals one whole day).

Lesson Preparation:

- Prior to the lesson, tape twenty nine cards around the classroom. [Each card showing the number 29 on it]. Do not give students a heads-up about the upcoming lesson about leap year.
- Prepare copies of the concept card (one for each student, plus one for an example for the teacher to use)

Lesson Plan:

Attention Getter: As students begin to notice the twenty nine cards around the room, ask them if they can guess why they are there. Also ask how many cards they predict are around the room.

Activities:

1. Select two volunteers: one to hold the globe and another to hold the sun. Have the sun holder stand in the center of the room. Mark the point where the globe holder volunteer begins to walk around the sun. Ask the globe holder to slowly walk around the sun. Reinforce the word for that action by asking (or teaching) that the earth is **revolving** around the sun.
2. Once the globe has reached the starting point, explain that the earth has just circled the sun once. “We call that one year, or 365 days.” Explain that it actually takes the earth a little bit longer to go all the way

around the sun. It takes one quarter of a day. Symbolize that part of the day by taping one part of the concept card on the board.

Repeat that three more times to show that three more quarters of a day have been added over three years—totaling one full day in four years.

3. Have students work on their individual concept card projects. Instruct students to cut out all four rectangles and glue them on their piece of construction paper.

Optional Activity:

Try to find small plastic frogs that make a sound when squeezed. Purchase enough for each student.

On the day of your leap year lesson, have the students squeeze their frogs instead of raising their hands. It will be a fun and memorable way to celebrate the once-in-four-years date!