

Carbon Cycle Demo

Summary

A teacher demonstration using dry ice and student acting introduces students to the carbon cycle.

Main Core Tie

Science - Biology

[Standard 1 Objective 2](#)

Time Frame

1 class periods of 60 minutes each

Group Size

Individual

Materials

rubber glove

gloves

dry ice

7 balloons

hammer

matches

splint

clear plastic bag

9 150 ml beakers

(optional: cow, sun, tree, ocean, atmosphere, decomposer and rock costumes)

Instructional Procedures

When students come into class hide some dry ice somewhere. Pull it out and ask them what it is. (You may want to think of some creative way to do this)

Ask them how we could prove this was carbon dioxide? You may need to lead them to the idea of a burning splint.

Give each table a small piece of dry ice and a beaker.

Let each table test the classes hypothesis, point out to students that they are watching carbon change forms. Carbon is a type of matter.

Challenge the students to think of other sources of carbon dioxide in the classroom

Have them test their hypotheses (they should come to the conclusion of breathing) 7

Collect the dry ice. Make sure to collect all of it! Students love to walk off with it!

Take a small chunk and place it in a rubber glove, this is a good visual and can double as an "udder" for the cow!

Ask for 7 student volunteers. One to represent each of the following: Sun, plant, cow, atmosphere, rocks, ocean, decomposer

Instruct students to dress in their costumes

Using the balloons as carbon molecules demonstrate the matter cycle

Make sure to point out the reservoirs.

Repeat the cycle with the students several times

Have the students complete the cycle without any direction from you

Have each student get out a blank sheet of paper, with no help from their neighbors they

should try to diagram the carbon cycle

Have them switch papers with their neighbors and make any corrections they feel need to be made

Switch papers once more and make any extra corrections or additions the student felt was missed.

Switch papers once more

Ask students to raise their hand if they think the paper in front of them is correct.

Quickly assess how well you think students grasp the concept.

Ask 3 students to come draw the cycle on the board.

As a class choose the correct cycle, or make any modifications necessary to have a complete diagram.

Discuss how the carbon is changing forms.

Ask how they think this cycle is similar and different if it were to take place in the ocean?

Have students then brainstorm a list of ways humans have influenced the carbon cycle

Bibliography

Lesson Design by Jordan School District Teachers and Staff.

Authors

[Utah LessonPlans](#)