



YOUTH ART PROJECT FOR:

PERCENTAGES

OBJECTIVE

Students will learn about percentages and how to express fractions and portions as a percentage.

Set up/prep time:

30 minutes

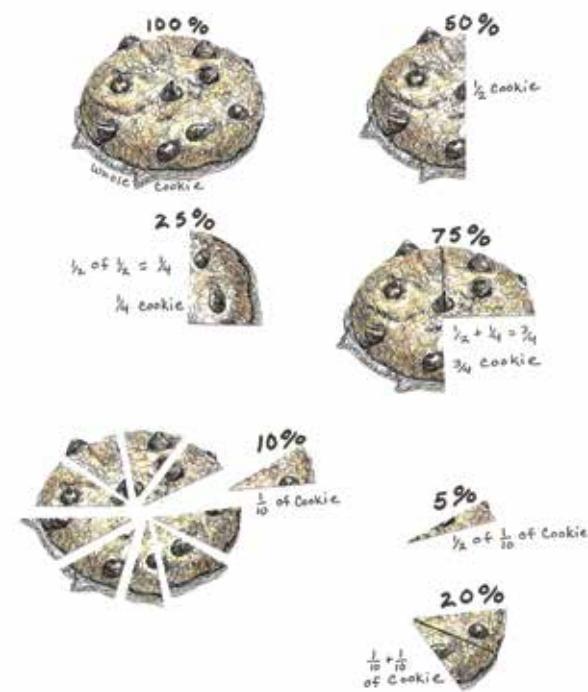
Activity time:

2-3 hours

Materials Needed:

Pencil, eraser, paper, calculator

$\%$ = Percentages = $\%$
Without a calculator





COMMON CORE STATE STANDARD

CCSS.Math.Content.7.RP.A.2 Recognize and represent proportional relationships between quantities.

PRE LESSON ASSESSMENT

Do a pre lesson assessment to determine what knowledge the students already have about percentages.

VOCABULARY

Percent, Fraction

RELEVANT RESOURCES

Content

<http://www.mathsisfun.com/percentage.html>
<https://en.wikipedia.org/wiki/Percentage>
<http://www.mathsisfun.com/converting-fractions-percents.html>

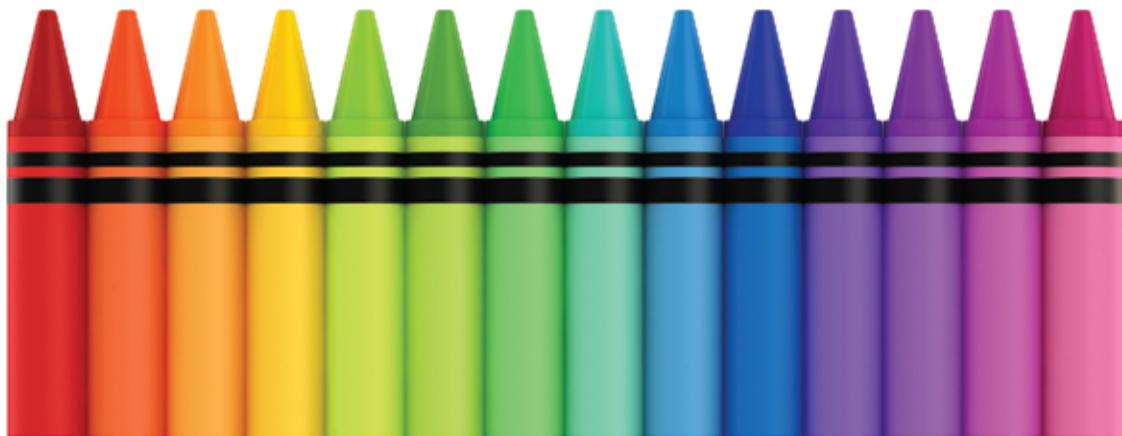
Art

<http://www.dragoart.com/tuts/3484/1/1/how-to-draw-cookies.htm>
<http://www.how-to-draw-funny-cartoons.com/cartoon-cookie.html>
http://www.ehow.com/how_2302887_use-shading-techniques-drawing.html

Students will engage in:

- Listening
- Speaking
- Reading
- Writing
- Partner Work
- Cooperative Learning
- Whole Group Instruction
- Visuals
- Hands on
- Technology Integration
- A Project
- Centers
- Simulations
- Activities

"The way positive reinforcement is carried out is more important than the amount." -B. F. Skinner





STEP 1

Each student should start with a copy of the cookie template page and a blank piece of paper.* Instruct the students to use colored pencils or crayons to color the cookies on their template pages. Then have the students cut out each of their cookies. Instruct the students to leave one of their cookies whole and glue or tape it to their blank paper. Students should cut their other cookies into a variety of equal pieces. (This project will be easiest if the students cut their cookies into equal parts that are factors of 100 such as 2, 4, 5, and 10) Instruct students to glue or tape portions of their cut cookies to their paper as shown in Figure 1.

*If students prefer, they can draw pieces of cookies directly on their papers rather than using the template.



STEP 2

Have the students use a black fine point pen to label the cookie parts on their papers as percentages of a whole cookie. For example if the students cut a cookie into two equal pieces then the percentage they would write for each of the two pieces would be 50%.

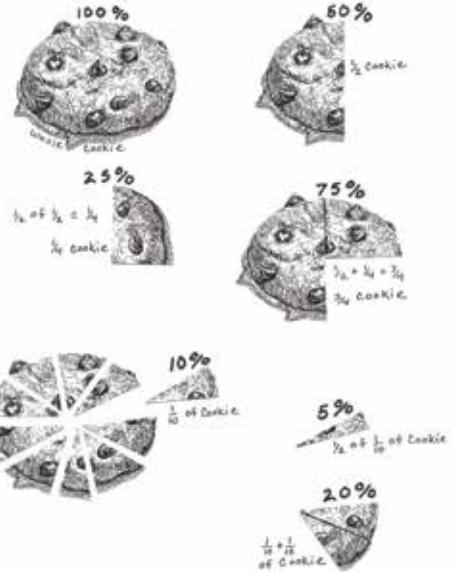




STEP 3

Next, have the students write the fraction of a whole cookie that is represented by each percentage they have written. For example 50% of the cookie would be written as $\frac{1}{2}$. Students can determine the fraction of cookie represented by writing the percentages as fractions with 100 as the denominator and then simplifying the fractions to lowest terms.

$\%$ = Percentages = $\%$
Without a calculator

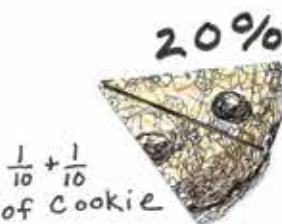
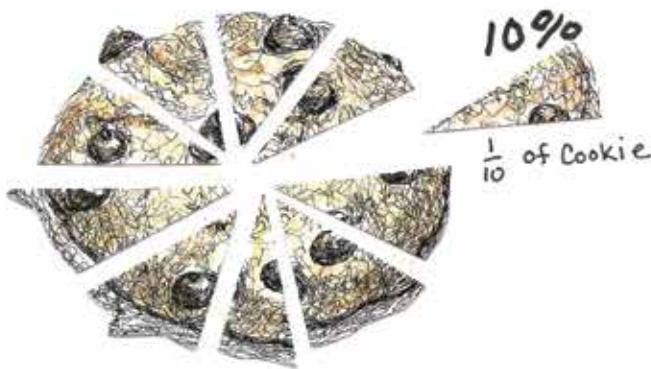
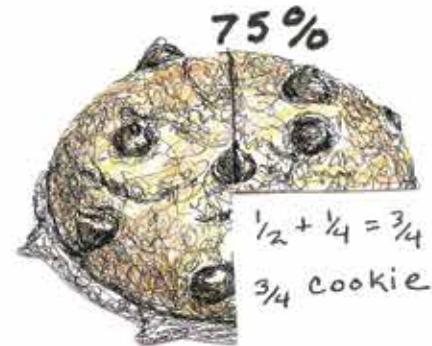
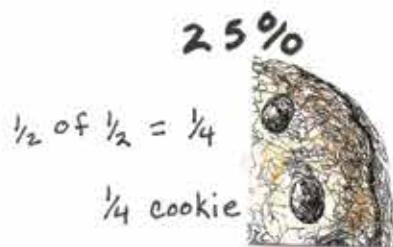
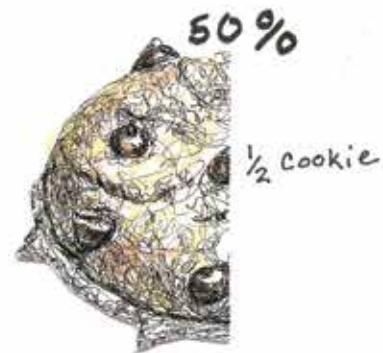


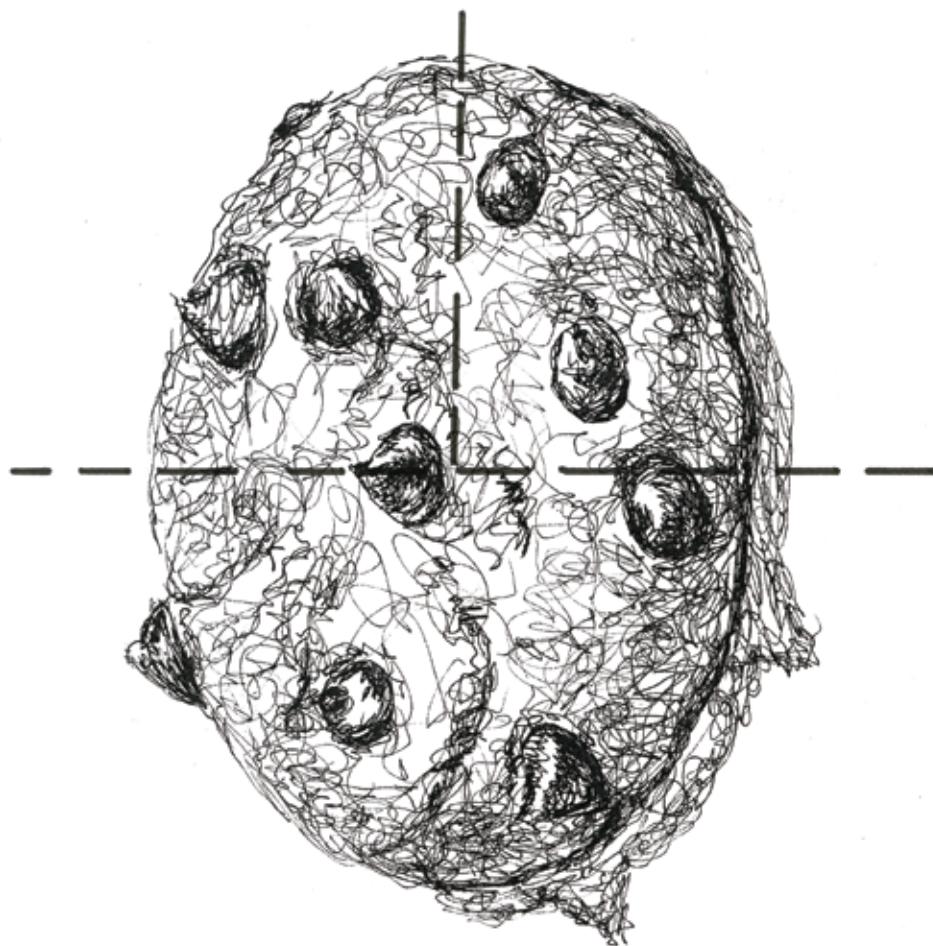
POST LESSON ASSESSMENT

Do a post assessment to determine what new knowledge the students have gained.



% = Percentages = %
Without a calculator







Math - Percentages

