

Title: Equivalent Fractions	Grade: 4th Grade
Content: Math	Duration: 15-20 minutes

Standard:

- **4.NF.1:** Explaining equivalent fractions

Objective: This week students will use objects from around their house to explore equivalent fractions.

Materials:

- Pile of leaves

Introduction Description:

Fractions are all around us. If the weather is nice we should get outside to explore fractions. If you are unable to get outside you can use a pile of toys, pennies, or any other object laying around.

Let's explore equivalent fractions. Equivalent fractions are fractions that are equal amounts. The leave activity below will lead you through the steps to explore equivalent fractions.

Steps:

- Go outside and collect a pile of the same related item. Create ONE big pile.
 - Students can collect leaves, sand, mud.
- Create ONE big pile.
 - How many piles do you have?
 - Students should say they have one pile.
 - The pile represents one whole.
- Take that same pile and divide it into two equal piles.
 - How many piles do you have?
 - Students should say they have two piles.
 - The two piles represent the fraction $\frac{1}{2}$.
 - One pile is $\frac{1}{2}$ of the whole and the second pile is the other $\frac{1}{2}$ of the whole.
- Take each of the $\frac{1}{2}$ piles of leaves and divide them into two piles.
 - How many piles do you have? What does each pile represent?
 - Students should explain that they have four piles. Each pile represents $\frac{1}{4}$ of the whole.
 - So the same amount of leaves that are in one $\frac{1}{2}$ pile is the same amount of leaves that are in two $\frac{1}{4}$ or $\frac{2}{4}$ piles.
 - That means that $\frac{1}{2}$ is equivalent or equal to $\frac{2}{4}$.
- Take each of you $\frac{1}{4}$ pile of leaves and divide them into half.
 - How many piles do you have? What does each pile represent?
 - Students should explain that they have 8 piles of leaves. Each pile represents $\frac{1}{8}$ of the whole.
 - So the same amount of leaves that are in $\frac{1}{2}$ and $\frac{2}{4}$ is the

same amount of leaves in $\frac{4}{8}$ of the pile. That means that $\frac{1}{2}$, $\frac{2}{4}$, and $\frac{4}{8}$ are all equivalent fractions.

- Throughout the week try this same method with $\frac{1}{3}$, $\frac{1}{5}$, and any other fraction to explore equivalent fractions.

Adaptations:

- Provide the student with the fraction options.
- Draw the lines to separate the groups using leaves.
- Use other objects such as rice, beans, and playdough.
- Use ropes or sticks to divide up your pile.

Finished Product: Students will have conversation about equivalent fractions.

