

Let's Make a Fraction Bird!

Introduction

(5 min)

Learning Objectives:

- Understanding unit fractions
- Use different shapes to compare the fractions from one another.
- Understanding the role of denominator in unit fraction.

Learning Outcomes:

- Learners will understand the basics of units and like fractions.
- Solve the basic problem based on like and unit fractions
- Compare the like and unit fractions based on their denominator
- Understand the difference between bigger and smaller fraction.

Lesson Overview

Lesson Stages and Duration	Lesson Stages Explore Build Present Reflect	Duration 10 min 24 min 16 min 10 min
Notes for the Facilitator	This lesson plan focuses on hands-on maker activities for understanding that bigger the denominator the smaller the proportion for units and like fractions. Assumption(s): <ul style="list-style-type: none">• Classroom teaching has already been done for Fractions For Facilitating this lesson: <ul style="list-style-type: none">• Divide learners into groups of four. (10 groups of 4 students)• Ask learners to download Twinkl go on the computer and Sign-in.	

List of Resources and Materials

Resources for introducing the topic	For introduction to Fraction: <ul style="list-style-type: none"> • Laptop • Fraction Teaching Deck • Projector • Fraction sheet • A3 sheets • Glue • Pair of scissors • A pencil, A marker 	
List of Materials	For Hands-on Activity	For Presentation
	Fraction Circle Template <ul style="list-style-type: none"> • A3 sheet • Glue • Pencil , Maker • A pair of scissors 	<ul style="list-style-type: none"> • Projector

Stage 1: Explore

(6 min)

Introduction and formation of fractions

Learning Objectives:

1. Enables learners to grasp fundamental concepts of fractions and motivates them to create artwork using fractional components.

Slide	Activity
2	Begin by sharing the overview.
3	Introduction Slide The introduction will start with the guessing game where students have to guess the name of some birds whose images are mentioned in the slide.
4	With the help of some examples inspire learners to draw their favorite bird.
5	Now the fraction art is introduced to the learners in the form of a video where necessary points are highlighted to the learners in order to maintain their excitement for the upcoming project. Points to be highlighted: 1. Usage of fraction while making fraction art 2. How fractional pieces are giving a beautiful picture to a bird? 3. How do different fractional pieces give a unique image to the picture? The learners are further guided to draw their favorite bird with the help of fractions as shown in the video.

Stage 2: Create

(33 min)

Creating a Fraction Art

Learning Objectives:

1. Enables learners to collaborate and generate ideas for creating Fraction Art centered around their favorite bird, utilizing fractional pieces.

Slide	Activity
6	Introduce learners to the Making task. Maker Challenge for learners: Working with your team design, build your favorite bird with the help of fractional pieces provided in fraction sheets. Note: Creation time has been divided into the following sections: 1. Ideation - 18 Minutes 2. Creation - 15 minutes
7	Group learners into teams of four.
8	Guide learners through the Roles for Maker challenge. Following could be the role distribution: Project Manager: 1 student Resource Manager: 1 student Time Keeper: 1 student Presenter: 1 learners Ask teams to mutually agree upon team roles and finalize roles for everyone in the team.
9	Place some ground rules for the learners to ease the process of creating fraction Art.
10	Teacher will provide learners the Material Required while constructing the activity: A3 sheets Glue A pencil, A Marker A pair of scissors Fraction Sheets
11	Help the learners to understand the parts of a circle with the help of some practical examples such as: If you have a cookie and you want to share it with your friend , How will you share that cookie with your friend? If you have to share the same cookie with 3 of your friends , How will you share it with your friends? Encourage them to determine the denominator by directing them to count the sections enclosed between the two lines and after that writing the fraction in the same section.
12	Display the timer and ask learners to complete the Ideation bit of Maker challenge under given time.
13	Give proper directions to the learners to cut the fractional pieces from the circles they have labeled. Make sure learners use the scissors safely.

14-16	Display the timer and ask learners to complete the Ideation bit of Maker challenge under given time. Introduction to the Inspiration wall where learners can pick any bird they want to proceed with for their fraction Art activity. Encourage learners by giving them various examples of the birds they can use in their fraction Art. You can ask guiding questions to facilitate brainstorming.
17	Display the timer and ask learners to complete the ideation part of Maker challenge within given time.
18	<u>CREATION (15 minutes)</u> All the groups will start sorting out the fractional pieces and placing them to build their fraction Art based on the theme , keeping in mind the shape and size of their Bird. All the fractional pieces will be placed on the A3 sheet and after completion learners will outline the bird with the black marker.
19	Display the timer on screen for learners to keep track of time and progress.
20	If learners are able to complete the fraction art before time then the teacher can encourage them to build the mountains, trees and grasses with the remaining fractional pieces.

Stage 3: Present

(5 min)

Learning Objectives:

Enables learners to:

- Share their findings, challenges, and outcomes with the class
- Test the efficacy of their Fraction Art and note down their observations.
- Assess learners' performance in the aspects of:
 - Content Understanding & Application
 - Maker Mindsets

Slide	Activity
21-22	The facilitator asks learners to present their creations and communicate to the class what they learned from the activity. Learners can go through the presentation guidelines and present taking help from supplement questions. Towards the end, teams could open the floor for feedback. Note for the facilitator: Allot maximum of 2 minutes to each team to present their fraction Art and their observations while building the same. You can use a timer or a stopwatch to ensure equal presentation time allotment to teams.

Stage 4: Reflect

Learning Objectives:

Enables learners to do the following:

- Reflect on their observations of the presentations they conducted.
- Understand the basic concepts learnt by the learners during their Fraction Art designing.

Slide	Activity
23	<p>Notes for the facilitator: Ask learners guiding questions to help them reflect after the round of presentations. You can use the following questions to guide reflection:</p> <ul style="list-style-type: none">• What is the unit fraction?• How will the denominator affect a fraction?• How will you determine which fraction is smaller and which is bigger? <p>Exit Ticket: Understanding with kahoot - Quiz based on different types of fractions. https://create.kahoot.it/share/kahoot-for-formative-assessment/28781ce3-4e60-461b-8397-825ca35e8c95 Facilitator can access the kahoot quiz with this link.</p>