

INTRODUCTION TO FRACTIONS / INSTRUCTOR INFO

Summary

Students will be engaged during these lessons as they are introduced to the concept of fractions. When students have a good foundation in fractions they are then prepared for later skills, such as learning decimals and percentages.

Goals & Objectives

The students will:

- Define fraction;
- Identify the number of objects in a set as a fraction;
- And be able to demonstrate how many parts of a whole are in a given set.

// STANDARDS

This lesson aligns with the following TEKS:

Kindergarten Math: 1A, 1C, 1 D, 1E, 1G

Grade 1 Math: 1A, 1C, 1D, 1E, 1G

Grade 2 Math: 1A, 1C, 1 D, 1E, 1G, 3C, 3D

STEM

This lesson plan aims to assist teachers in implementing a STEM-based program into their classroom while inspiring the next generation of explorers, scientists, and stewards of the ocean. Based on real science and the Global Shark Tracker™, “Fins Up for Fractions” is intended to promote environmental awareness and to prepare students for STEM careers.

Helpful Tips

1. The content in this lesson is based on the conservation work of OCEARCH™ and the Global Shark Tracker™. Spend a few minutes getting familiar with the website and the tracker if you have not done so already. The Global Shark Tracker™ is also available as an app for iPhone and Android.
2. This lesson plan is designed to be adaptable to suit your specific needs. Use the entire lesson plan or just parts of it. This material can be expanded to be an entire unit or condensed for just one day in the classroom.
3. Vocabulary words will be underlined as they first appear in the lesson plan. A complete list of vocabulary words is included as well.
4. Answers to questions and prompts for discussions will appear in italics.
5. Optional activities and content (side notes) will appear in a box. Use these to enhance your lesson and adapt it to suit your needs!
6. Have questions for OCEARCH Expedition Leader, Chris Fischer? Email info@OCEARCH.org to schedule a Skype session and let your
7. Email all questions about this lesson to info@OCEARCH.org.

INTRODUCTION TO FRACTIONS / LESSON PLAN

PART 1. INTRODUCTION 10-15 mins

Ask the students what they already know about fractions. If they have heard of them, where have they seen them before?
A great example of fractions in everyday life is cooking!

A fraction is a number that represents the part of a whole. For example, imagine you see three sharks swimming in the ocean – two of the sharks are blue and one shark is gray. Someone asks you, “What fraction of the sharks is blue?” You would answer, “Two out of the three sharks are blue.” Mathematically, the answer is written as “ $\frac{2}{3}$ ”.
Write the answer on the board for the class to see.

Open the OCEARCH Global Shark Tracker on a large screen. Ask the students “How many of the first 10 sharks listed on the shark tracker are pinging in orange?” The answer will vary day-by-day since the data loads in real-time!

That is also a fraction! _____ out of _____ sharks pinged in recently! Let's do another one!
What fraction of the sharks that have pinged in are great white sharks?
What fraction are hammerhead sharks?

PART 2. FRACTIONS ACTIVITY 20-30 mins

Introduction

Materials

- Worksheet (provided)
- Pencil, colored pencils, crayons, and/or markers
- Colored candy (such as M&M's, Skittles, Starburst, etc.)

Instructions

1. Hand out a worksheet to each student.
2. Students will also receive six pieces of the candy you have selected (colors will be random!) Do NOT eat your candy yet!
3. Students will sort their candy by color and then color the sharks on their worksheet to match their candies.
 - a) For example, if you have three red candies, color three of the sharks red. If you have two yellow candies, color two of the sharks yellow. And if you have one blue candy, color one shark blue.
4. Once finished coloring, students can work together to answer the questions below.

Activity 1.

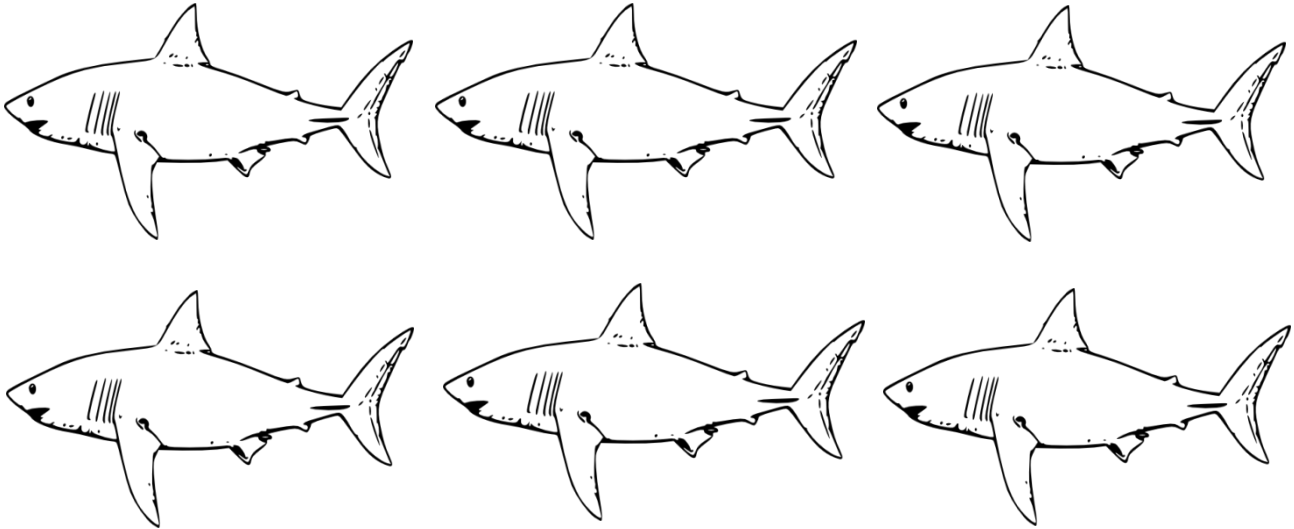
Fractions Worksheet

Name: _____

Date: _____

Instructions

1. Sort the candy on your desk by color.
2. Color the sharks below to match the colors of your candy.
3. Once finished coloring, answer the questions below.



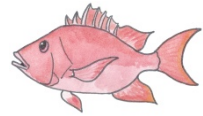
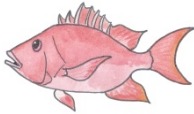
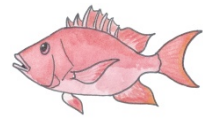
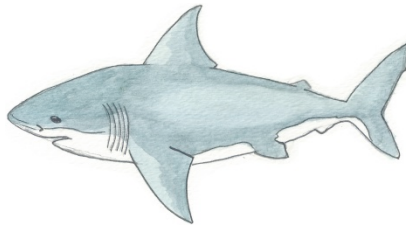
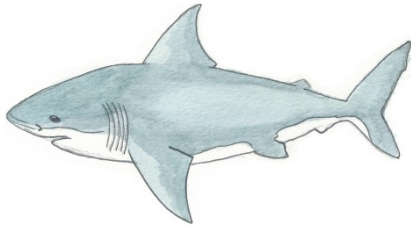
- 1) What fraction of the sharks is colored _____? ____ out of _____. Write this as a fraction: _____
- 2) What fraction of the sharks is colored _____? ____ out of _____. Write this as a fraction: _____
- 3) What fraction of the sharks is colored _____? ____ out of _____. Write this as a fraction: _____

Activity 1. Fractions Practice Worksheet

Name: _____

Date: _____

Use the pictures below to answer the questions.



- 1) How many total animals are pictured above? _____
- 2) How many animals are great white sharks? _____ Write this as a fraction: _____
- 3) How many animals are red snapper? _____ Write this as a fraction: _____
- 4) How many animals are sea lions? _____ Write this as a fraction: _____