4th Grade Math, Science, and Social Studies Choice Board
Week of March 23rd

Below you will find choices for you to do this week. Please finish **FIVE** activities from the choices below. You may choose to do one a day, or all at once, but please finish 5 a week. If you need anything, including supplies, please contact your teacher! Don't forget to save all of your work! We miss you! See you soon!

HMH Compare and Order Fractions Complete the attached worksheets for Comparing and Order Fractions. https://drive.google.com/file/d/1YP9bweWQwCCqaiEkUHECmMfnWsdRtzeM/view?usp=sharing OR Complete Khan Academy Lesson "Comparing Fractions with Different Denominators". It has been assigned to you by your teacher.	**HMH Add and Subtract Fractions** Complete the attached worksheets for Adding and Subtracting Fractions from HMH. https://drive.google.com/file/d/1iN7yQvJN2LfYhpdnGeMyirplc_OnX-eU/view?usp=sharing OR Complete Khan Academy Lesson "Add and Subtract Word Problems". It has been assigned to you by your teacher.	**It's the Proper Way to be Improper...** What is a time that improper fractions might be useful? Write a short story from the point of view of an improper fraction and explain your usefulness to the world.
Capture That Fraction Game Grab a Deck of cards and play this fun game with a member of your family! If you do not have cards, you can write the numbers 0-9 on a notecard or a post-it to play! https://drive.google.com/file/d/1PEGOTiTqCFk-yGk63jDeVWiVnOEP69V4/view?usp=sharing	**Connection to Reading** Use the characters and situation from a story you recently read to create 3 word problems. Use grade level math concepts: · Operations with fractions · Multi-digit multiplication · Multi-digit division · Multi-digit addition · Multi-digit subtraction · Ordering and comparing · Area/perimeter	**Math at Home** When do you need to use Fractions at home? Give 5 examples of fractions that you see around your house. Explain why they are useful and when you might use them. Hint: You may look through your junk mail, newspaper/magazine, kitchen, or toys!

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Science

Choose 2 from the list below!

- Lights Out Lab- See the effects that sunlight has on plants first hand!

https://drive.google.com/file/d/1KqbII0D_DVzqMmTH-fWqa1Mtt-Ze_cNm/view?usp=sharing

- Add Color to Flowers- Use food coloring and a pretty flower to see how water travels through plants.

https://drive.google.com/file/d/1JScFIZXVPD8aKBZ15U-JF8dMR7KrTT8S/view?usp=sharing

- Producer/Consumer Nature Walk- Take a nice walk outside. What do you see? On your walk find:
  - 5 Producers
  - 5 consumers

Next, label your consumers Herbivore, Carnivore, or Omnivore.

Social Studies

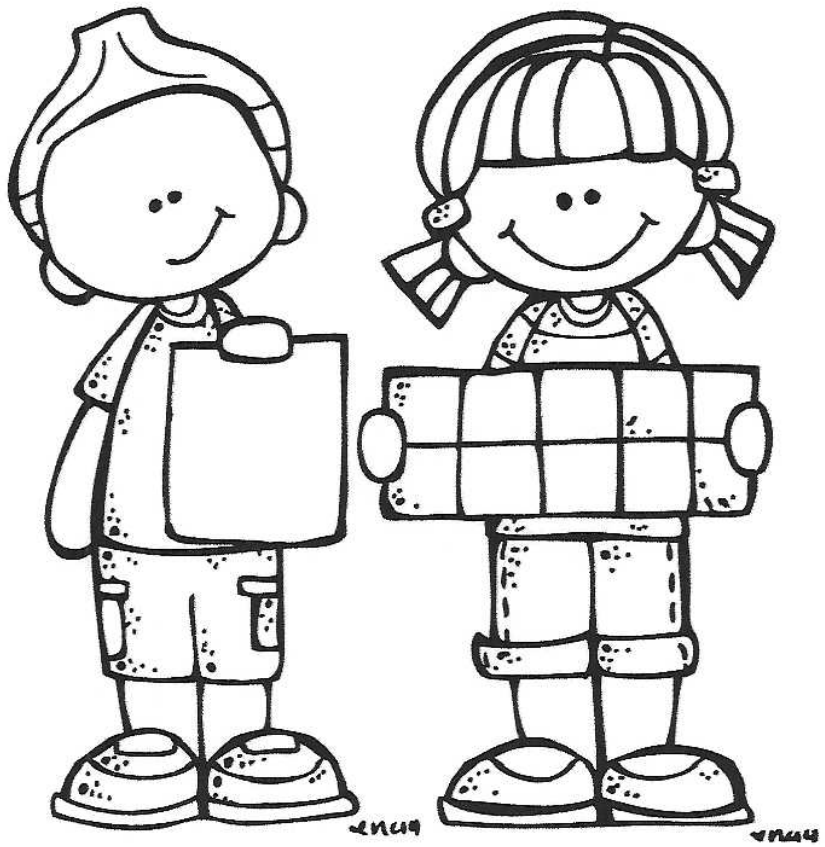
- North America Map Skills Activity- This one make take a few days and you will definitely want to have your phones/internet around to help you locate everything!

https://drive.google.com/file/d/1FzHnWI5RORFFLjzYQux5MFI7zdqXyelL/view?usp=sharing

- Texas Crossword Puzzle

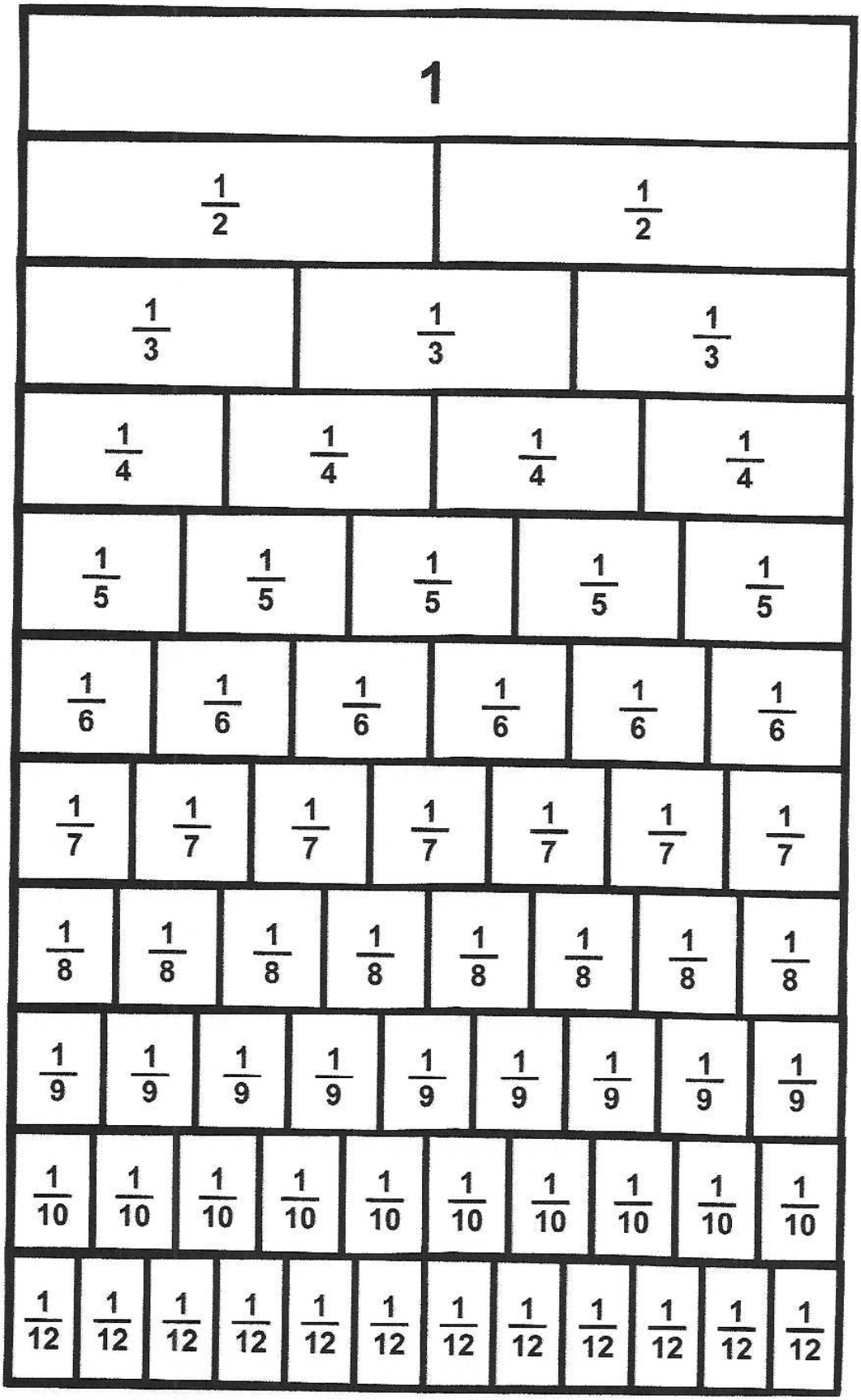
https://drive.google.com/file/d/1txd8J8MTYALF5HfXi5cbgkaadLhMVsc-/view?usp=sharing

Math



Name: _____

FRACTION Bars



Name _____

4.3 Compare and Order Fractions

TEKS Number and Operations—4.3.D, 4.3.G

MATHEMATICAL PROCESSES 4.1.A, 4.1.B, 4.1.D

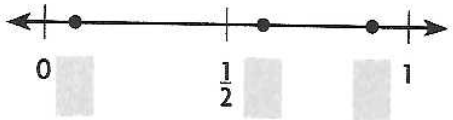
Essential Question How can you order fractions?

Unlock the Problem Real World

Jody has equal-size bins for the recycling center. She filled $\frac{3}{5}$ of a bin with plastics, $\frac{1}{12}$ of a bin with paper, and $\frac{9}{10}$ of a bin with glass. Which bin is the most full?

- Underline what you need to find.
- Circle the fractions you will compare.

Example 1 Locate and label $\frac{3}{5}$, $\frac{1}{12}$, and $\frac{9}{10}$ on the number line.



Math Idea

Sometimes it is not reasonable to find the exact location of a point on a number line. Benchmarks can help you find approximate locations.

STEP 1 Compare each fraction to $\frac{1}{2}$.

$\frac{3}{5} \bigcirc \frac{1}{2}$ $\frac{1}{12} \bigcirc \frac{1}{2}$ $\frac{9}{10} \bigcirc \frac{1}{2}$

_____ and _____ are both greater than $\frac{1}{2}$.

_____ is less than $\frac{1}{2}$.

Label $\frac{1}{12}$ on the number line above.

STEP 2 Compare $\frac{3}{5}$ and $\frac{9}{10}$.

Think: Use 10 as a denominator.

$\frac{3}{5} = \frac{\square \times \square}{\square \times \square} = \frac{\square}{\square}$

Since $\frac{6}{10} \bigcirc \frac{9}{10}$, you know that $\frac{3}{5} \bigcirc \frac{9}{10}$.

Label $\frac{3}{5}$ and $\frac{9}{10}$ on the number line above.

The fraction the greatest distance from 0 has the greatest value.

The fraction with the greatest value is _____.

So, the bin with _____ is the most full.

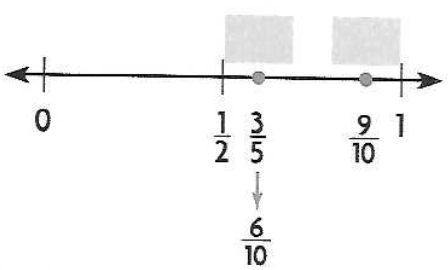
Math Talk Mathematical Processes

Explain how to write $\frac{3}{5}$ and $\frac{9}{10}$ as decimals in hundredths and compare their distances from 0.

- **Explain** how to write $\frac{3}{5}$ and $\frac{9}{10}$ as decimals in tenths and compare their distances from 0.

_____

_____



Homework and Practice

TEKS Number and Operations—4.3.D, 4.3.G
MATHEMATICAL PROCESSES 4.1.A, 4.1.B, 4.1.D

Name _____

4.3 Compare and Order Fractions

Write the fractions in order from least to greatest.

1. $\frac{2}{8}, \frac{2}{4}, \frac{2}{6}$

_____

2. $\frac{2}{5}, \frac{1}{3}, \frac{5}{6}$

_____

Write a numerator that makes the statement true.

3. $\frac{7}{12} < \frac{\square}{3} < \frac{3}{4}$

4. $\frac{\square}{10} < \frac{9}{15} < \frac{4}{5}$

Problem Solving (Real World)

5. Walt, Dalia, and Kyra ran a race. The table shows their finish times. In what order did Walt, Dalia, and Kyra finish the race?

_____

_____

6. Walt's friend Paul also ran in the race. Who finished first, Walt or Paul?

_____

5-Kilometer Race Results

Name	Time
Walt	$\frac{4}{5}$ hour
Dalia	$\frac{2}{3}$ hour
Kyra	$\frac{5}{6}$ hour
Paul	$\frac{3}{10}$ hour

Lesson Check

TEXAS Test Prep

Fill in the bubble completely to show your answer.

7. A recipe for ice cream includes $\frac{3}{4}$ cup milk, $\frac{1}{3}$ cup cream, and $\frac{1}{8}$ cup sugar. Which shows the amounts from least to greatest?

Ⓐ $\frac{1}{3}$ cup, $\frac{3}{4}$ cup, $\frac{1}{8}$ cup

Ⓑ $\frac{1}{8}$ cup, $\frac{3}{4}$ cup, $\frac{1}{3}$ cup

Ⓒ $\frac{3}{4}$ cup, $\frac{1}{3}$ cup, $\frac{1}{8}$ cup

Ⓓ $\frac{1}{8}$ cup, $\frac{1}{3}$ cup, $\frac{3}{4}$ cup

8. Order the fractions from least to greatest.

$\frac{4}{5}, \frac{1}{3}, \frac{7}{10}, \frac{3}{5}$

Ⓐ $\frac{1}{3} < \frac{3}{5} < \frac{7}{10} < \frac{4}{5}$

Ⓑ $\frac{3}{5} < \frac{1}{3} < \frac{4}{5} < \frac{7}{10}$

Ⓒ $\frac{7}{10} < \frac{3}{5} < \frac{1}{3} < \frac{4}{5}$

Ⓓ $\frac{4}{5} < \frac{7}{10} < \frac{1}{3} < \frac{3}{5}$

9. Order the fractions from least to greatest.

$\frac{2}{3}, \frac{1}{4}, \frac{5}{12}, \frac{3}{4}$

Ⓐ $\frac{1}{4}, \frac{2}{3}, \frac{5}{12}, \frac{3}{4}$

Ⓑ $\frac{3}{4}, \frac{5}{12}, \frac{2}{3}, \frac{1}{4}$

Ⓒ $\frac{1}{4}, \frac{5}{12}, \frac{2}{3}, \frac{3}{4}$

Ⓓ $\frac{1}{4}, \frac{5}{12}, \frac{3}{4}, \frac{2}{3}$

10. Three potatoes weigh $\frac{1}{4}$ pound, $\frac{5}{8}$ pound, and $\frac{1}{2}$ pound. Which shows the weights from least to greatest?

Ⓐ $\frac{1}{4}$ pound, $\frac{5}{8}$ pound, $\frac{1}{2}$ pound

Ⓑ $\frac{1}{2}$ pound, $\frac{1}{4}$ pound, $\frac{5}{8}$ pound

Ⓒ $\frac{5}{8}$ pound, $\frac{1}{2}$ pound, $\frac{1}{4}$ pound

Ⓓ $\frac{1}{4}$ pound, $\frac{1}{2}$ pound, $\frac{5}{8}$ pound

11. Multi-Step Selma used stones to outline her garden. The lengths of the stones are $\frac{1}{3}$ foot, $\frac{7}{12}$ foot, and $\frac{3}{4}$ foot. What are the lengths in order from shortest to longest?

Ⓐ $\frac{7}{12}$ foot, $\frac{3}{4}$ foot, $\frac{1}{3}$ foot

Ⓑ $\frac{1}{3}$ foot, $\frac{7}{12}$ foot, $\frac{3}{4}$ foot

Ⓒ $\frac{3}{4}$ foot, $\frac{7}{12}$ foot, $\frac{1}{3}$ foot

Ⓓ $\frac{7}{12}$ foot, $\frac{1}{3}$ foot, $\frac{3}{4}$ foot

12. Multi-Step Ms. Mohan bought cheese for a recipe. She bought $\frac{5}{6}$ pound of cheddar cheese, $\frac{1}{4}$ pound of Swiss cheese, and $\frac{3}{8}$ pound of American cheese. What are the amounts in order from least to greatest?

Ⓐ $\frac{5}{6}$ pound, $\frac{1}{4}$ pound, $\frac{3}{8}$ pound

Ⓑ $\frac{3}{8}$ pound, $\frac{5}{6}$ pound, $\frac{1}{4}$ pound

Ⓒ $\frac{1}{4}$ pound, $\frac{3}{8}$ pound, $\frac{5}{6}$ pound

Ⓓ $\frac{3}{8}$ pound, $\frac{1}{4}$ pound, $\frac{5}{6}$ pound

Name _____

5.5 Add and Subtract Fractions

TEKS Number and Operations—4.3.E *Also 4.3.F*

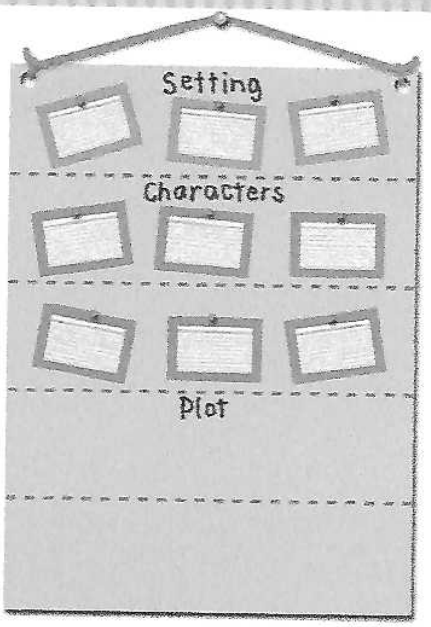
MATHEMATICAL PROCESSES 4.1.G

Essential Question

How can you add and subtract fractions with like denominators?

Unlock the Problem Real World

Julie is making a poster for a book report. The directions say to use $\frac{1}{5}$ of the poster to describe the setting, $\frac{2}{5}$ of the poster to describe the characters, and the rest of the poster to describe the plot. What part of the poster will she use to describe the plot?



Example Use a model.

Shade _____ to represent the part for the setting.

Shade _____ to represent the part for the characters.

1				
$\frac{1}{5}$	$\frac{1}{5}$	$\frac{1}{5}$	$\frac{1}{5}$	$\frac{1}{5}$

- Write an equation for the part of the poster used for the setting and characters. _____
- What does the part of the model that is not shaded represent?

_____

- Write an equation for the part of the poster she will use for the plot.

_____

So, Julie will use _____ of the poster to describe the plot.

Math Talk

Mathematical Processes

Why should Julie divide her poster into 5 equal parts instead of 3 equal parts? Explain.

1. **What's the Error?** Luke says $\frac{1}{5} + \frac{2}{5} = \frac{3}{10}$. **Describe** his error.

_____

_____

_____

Homework and Practice

TEKS Number and Operations—4.3.E
Also 4.3.F
MATHEMATICAL PROCESSES 4.1.G

Name _____

5.5 Add and Subtract Fractions

Find the sum or difference. Determine whether your answer is reasonable.

1. $\frac{2}{7} + \frac{3}{7} =$ _____

2. $\frac{10}{12} - \frac{6}{12} =$ _____

3. $\frac{8}{9} - \frac{5}{9} =$ _____

4. $\frac{4}{8} + \frac{4}{8} =$ _____

Find the sum or difference.

5. $\frac{4}{7} - \frac{1}{7} =$ _____

6. $\frac{1}{6} + \frac{5}{6} =$ _____

Find the unknown fraction.

7. $\frac{1}{5} +$ _____ $= \frac{4}{5}$

8. $1 -$ _____ $= \frac{2}{4}$

9. $\frac{3}{8} +$ _____ $= 1$

10. $\frac{5}{6} -$ _____ $= \frac{2}{6}$

Problem Solving Real World

11. Jorge's rain gauge showed that it rained $\frac{3}{8}$ inch during the first week of the month. At the end of the second week the gauge was $\frac{7}{8}$ inch full. How much did it rain during the second week?

_____

12. Courtney watched a caterpillar crawl on the sidewalk. It crawled $\frac{4}{10}$ yard and stopped. The caterpillar crawled $\frac{5}{10}$ yard further. How far did the caterpillar crawl in all?

_____

Lesson Check

TEXAS Test Prep

Fill in the bubble completely to show your answer.

13. At Mary's party, $\frac{4}{8}$ of the guests had chocolate ice cream and $\frac{3}{8}$ of the guests had strawberry ice cream. What fraction of the ice cream was either chocolate or strawberry?

Ⓐ $\frac{1}{16}$

Ⓑ $\frac{7}{8}$

Ⓒ $\frac{1}{8}$

Ⓓ $\frac{7}{16}$

14. The fuel gauge in Mrs. Jensen's car showed $\frac{3}{4}$ of a tank of gas. After driving into the city and back, the gauge showed $\frac{1}{4}$ of a tank of gas. How much gas did Mrs. Jensen use?

Ⓐ $\frac{2}{4}$ tank

Ⓑ 1 tank

Ⓒ $\frac{1}{3}$ tank

Ⓓ $\frac{3}{4}$ tank

15. Craig is folding laundry for his family. In the basket, $\frac{1}{6}$ of the shirts belong to his older brother and $\frac{3}{6}$ of the shirts belong to his younger brother. What fraction of the shirts belong to either his older or younger brother?

Ⓐ $\frac{6}{6}$

Ⓑ $\frac{5}{6}$

Ⓒ $\frac{2}{3}$

Ⓓ $\frac{1}{3}$

16. After sharing with the class, Dana has $\frac{4}{12}$ of her cupcakes left. What fractional part of the cupcakes did she share with the class?

Ⓐ $\frac{2}{3}$

Ⓑ $\frac{1}{4}$

Ⓒ $\frac{3}{4}$

Ⓓ $\frac{1}{3}$

17. **Multi-Step** Josie had 1 gallon of ice cream. She used $\frac{3}{10}$ gallon to make a chocolate milkshake and $\frac{3}{10}$ gallon to make a vanilla milkshake. How much ice cream is left?

Ⓐ $\frac{6}{10}$ gallon

Ⓑ $\frac{4}{10}$ gallon

Ⓒ $\frac{7}{10}$ gallon

Ⓓ $\frac{5}{10}$ gallon

18. **Multi-Step** In Mr. Green's music class, $\frac{3}{12}$ of the students play the guitar and $\frac{4}{12}$ of the students play the violin. The rest of the students play the piano. What fraction of the students play the piano?

Ⓐ $\frac{8}{12}$

Ⓑ $\frac{9}{12}$

Ⓒ $\frac{7}{12}$

Ⓓ $\frac{5}{12}$

Capture That Fraction

Materials

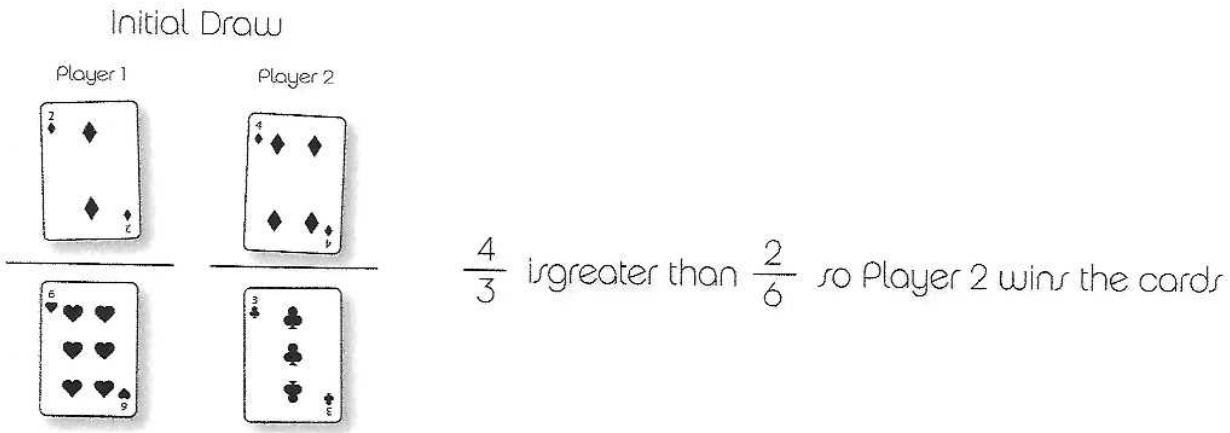
One deck of playing cards (Aces= 1, Jokers= 0, Jacks = 11, Queens = 12, Kings = 13). Calculator.

Rules and Play

1. *Capture That Fraction* is a game for two to four players/teams.

2. The dealer shuffles and distributes the cards one at a time to the players. Players position their cards face down and sit side by side.

3. Play begins by having the players simultaneously turn over two cards and place them on a game board. Each player places one card in the empty space for the numerator and one card in the empty space for the denominator. An example is shown below.



4. The player/team who has the largest fraction shown by the cards wins the set of cards. If a tie results, the cards are either buried or are set aside and become a part of the winnings in the next round.

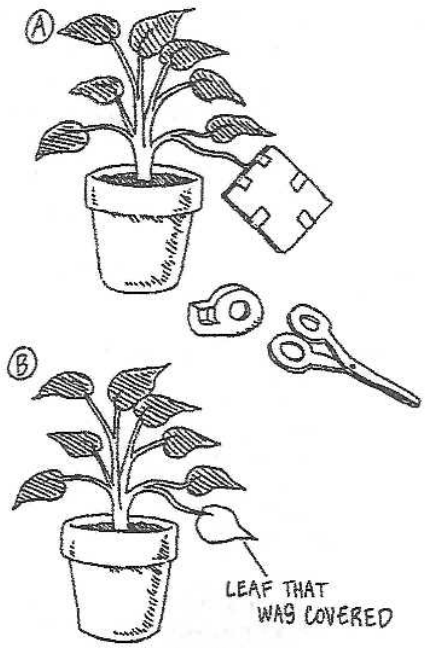
5. Play continues until one player/team has accumulated all of the cards or time is called. The player/team with the most cards wins the game.

Variations

- Impose a rule that requires placing the smaller card in the numerator and the larger in the denominator.
- Change the rules so that the smaller fraction wins.

Science

Lights Out



Purpose

To determine the effect of sunlight on plant survival.

Materials

- Scissors
- Black construction paper
- House plant
- Cellophane tape

Procedure

- Cut two pieces of black construction paper large enough to cover one leaf on the plant.
- Sandwich the leaf between the two pieces of paper.
- Tape the paper together. It is important that the leaf not receive any sunlight.
- Wait 7 days.
- Uncover the leaf and observe its color.

Results

The leaf is much paler that other leaves on the plant.

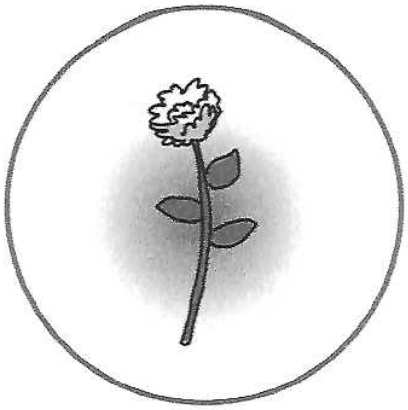
Why?

A green chemical called **chlorophyll** gives leaves their green color. In the absence of sunlight, the green pigment is not produces, resulting in a light-colored leaf. Since chlorophyll is necessary for plant survival, the leaf will eventually die without sunlight.

ADD COLOR TO FLOWERS USING SCIENCE!

YOU WILL NEED:

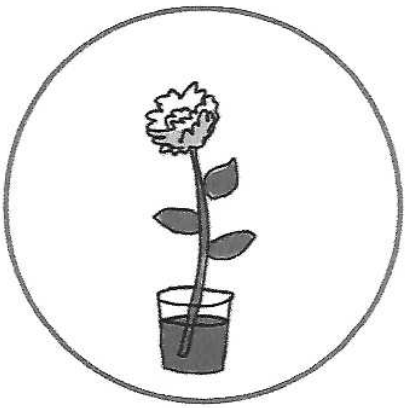
- Food coloring
- Some small cups
- Water
- White carnations



WHAT TO DO

1. Decide what colors you would like the flowers to be and then add that color to your glass. You will need to add enough food coloring to create a strong color in the water, just a few drops of coloring will not have much of an effect. (Our blue looked more like black after adding enough color.)

2. Snip the last centimeter of your carnation steam and place the stem in the colored water. Now just wait. Over the next day you will see signs of the coloring emerge in the petals, and even in the leaves. Our experiments have shown that sometimes the color emerges within a few hours, other times it takes a day or two. You can make green flowers for St Patrick's day, red for valentines...you get the idea.



MULITCOLOR?

We tried splitting the stem with a razor (adults only, for that part please) and we then placed each stem into a different color of water. Sure enough the flower became multicolored...pretty cool. We wonder if it would work with three colors. If you try it, let us know.

HOW DOES IT WORK?

This is the science of TRANSPIRATION. It basically means that the plant draws water up through its stem. The water is then evaporated from the leaves and flowers through openings know as stomata. As the water evaporates, it creates pressure that brings more water into the plant – similar to drinking from a straw. Some trees can transpire dozens (even hundreds) of gallons of water on a hot day. How fast a plant transpires depends on temperature, humidity, and even wind. You may want to set up an experiment that tests the transpiration rate of the flowers by placing your plant-coloring set-up in different areas (sunny & dark, windy& still, dry & humid) and see which flower ends up with the most color – more color=more transpiration.

By the way, most flower shops do not color their flowers this way. There are many different breeds of flowers that are capable of producing a wide variety of flower colors. But we still think this way is more fun.

Social Studies

North America

Name _____
Date _____

Directions: Label the following. Include symbols and use a number key when space is limited.

1. Label 15 countries and outline in different colors
2. Label 15 large cities
3. Label your school and Washington, D.C.
4. Mississippi River, Yukon River, Rio Grande River
5. Atlantic Ocean, Pacific Ocean, Arctic Ocean
6. Hudson Bay, Caribbean Sea, Gulf of Mexico
7. Rocky Mountains, Mojave Desert
8. Tropic of Cancer, magnetic North Pole
9. Great Bear Lake, Great Lakes (Hint: *HOMES*)
10. Panama Canal

Fast Facts: *North America is comprised of 23 nations and over 580 million people. The major languages are English, Spanish, and French. Mexico City is the largest city (21 million people), and it is the only continent with all major climate types.*

KEY

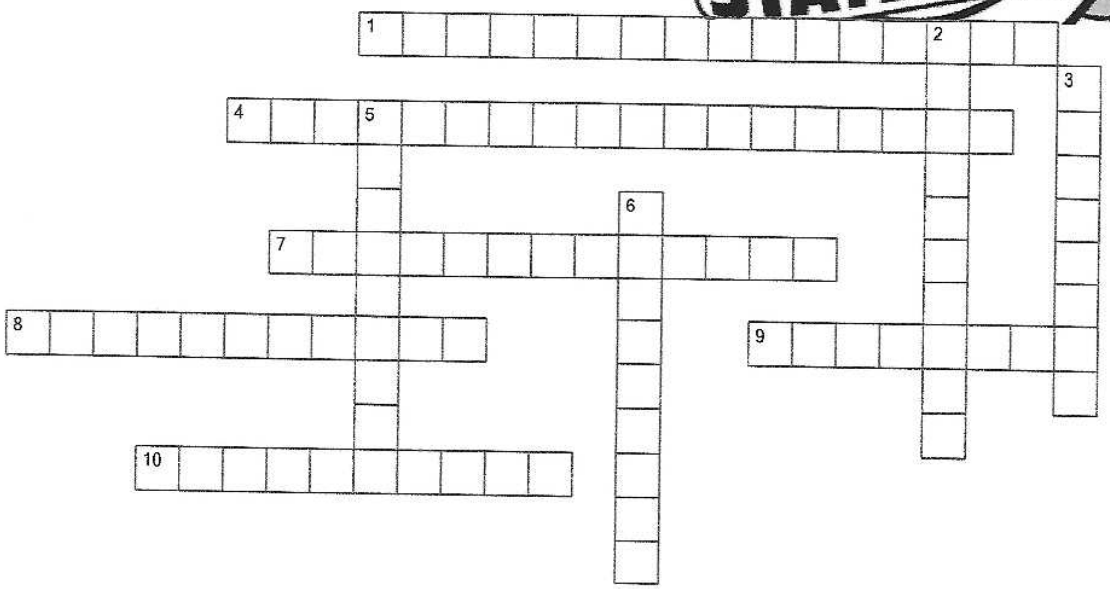
- Capital ☆
- City ●
- Mountains
- River
- Desert
- Forest
- Lake
- Marsh
- Road
- Pass

Name: _____

Date: _____

Texas Crossword

Complete the activity.



ACROSS

1. Has deep orange wings with black and white markings, known for its long-distance migrations
4. First reported planting of a grove in Texas was 1893
7. May spawn a second time in the summer
8. Mimics songs of other birds
9. The hardy breed of open range cattle that defined the western trail drive and serves as the mascot for the University of Texas
10. Named for its color and the resemblance of its petal to a woman's sunbonnet

DOWN

2. Texas State Motto
3. This chile was named after the city of Xalapa in Veracruz, Mexico
5. A genus of small isopod Crustacea that can roll themselves into a ball
6. Bears sweet edible nuts, deep brown in color, that range from 1 to 2 inches in length

Guadalupe Bass	Longhorn	Armadillo	Mockingbird
Pecan Tree	Bluebonnet	Friendship	Monarch Butterfly
Texas Red Grapefruit	Jalapeno		