Lesson Printables

Be a rockstar and only print what you need!

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(Could be used when looking for fractions around your local area)
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Let's identify fractions

Why learn this?

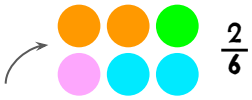
Fractions are parts of a whole. By exploring fractions around them, students develop real-life contexts for these types of numbers rather than just seeing abstract symbols on a page. When children notice fractions in everyday situations, they develop a deeper conceptual understanding of what fractions actually represent.

What are fractions?

What are fractions?
- A fraction represents a part of a whole. For example, a whole pizza that has been cut into 8 equal parts.
- The numerator is the top number and represents the number of parts or pieces being focused on.
- The denominator is the bottom number and represents the number of pieces of parts in the whole.

**Note, fractions can be mixed numbers which are whole number and fractions. They will be discussed in future lessons.*

How can I find fractions in pictures?
- Identify the total amount of parts in the whole.



  - ➔ In this example, there are 6 dots in total.
  - ➔ This amount will be the denominator of all fractions associated with the picture as it represents the total amount of dots.
- Choose something to focus on.
  - ➔ In the dot picture, we could focus on the orange dots.
  - ➔ There are 2 orange dots, this means that the numerator will be 2.
- Record the fraction.
  - ➔ 2/6 of the dots are orange.
- Each picture shows several fractions.
  - ➔ 1/6 of the dots are green, 2/6 of the dots are blue, 6/6 of the dots are dots, etc.

How can my students find factions at home?
- Gather a collection of items.
  - ➔ This could be a pile of socks, a handful of lego blocks, a group of different beans, balls, colored pencils, fruit etc.
- Use the above steps to find fractions for each group or collection of items.
  - ➔ 3 of the 5 socks are white
    - ◆ The fraction is 3/5.
  - ➔ 1 of the 5 socks has a hole in it, so 1/5 of the socks are holey.

Let's warm up!

Starter Activity - Order! Order!
Students are shown six descriptors of amounts. For example, 'the population of Malawi'. What numbers do students think could match each descriptor? (Encourage students to use their best estimations.) Write the scenarios in order from smallest estimation to largest.

To support, students could:
- Be asked guiding questions:
  - ➔ What do you think would be a good guess for all of the scenarios?
  - ➔ How do you know when a number is bigger or smaller than another number?

To challenge, students could:
- Include some of their own scenarios or ideas in the order. E.g., Age, population of your town/city/country, etc.

Let's do this!

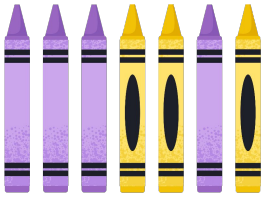
Main Activity - Students are shown 4 different pictures. What fractions can students find in each of the pictures? Encourage students to identify at least 2 fractions for each picture.

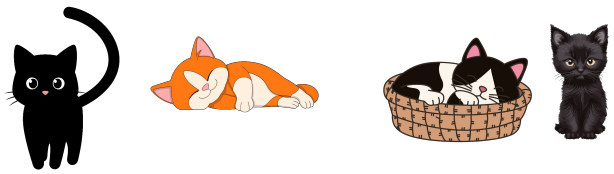
To support, students could:
- Use a fraction mat for guidance. See printables.

To challenge, students could:
- Explore trying to draw their fractions on a number line. This can be tricky to start with. Use the whole (denominator as a guide). If a student is exploring a collection of 8 socks, draw a line that is 8 centimeters long. Mark each centimeter to show the whole has been divided into 8 parts. If you work in inches, draw a line that is 8 inches long and then mark each inch.
- Go exploring! What fractions can students find?
  - ➔ Look for fractions in a pile of clothes. What fraction of the clothes are shorts? Shirts? Clean?
  - ➔ Flip over a handful of playing cards. What fraction are hearts? Spades? Odd numbers?
  - ➔ Look at a collection of mugs/cups. What fraction are blue? Chipped? Have a pattern or words?
  - ➔ Look at a collection of shoes. What fractions are sneakers? Have laces? Are left shoes?

Sunlight Zone

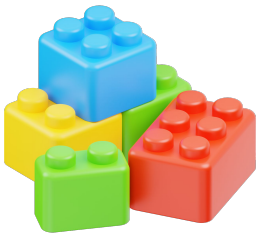
1. What fractions can you find in the pictures?
   ➔ Identify at least 2 fractions per picture.

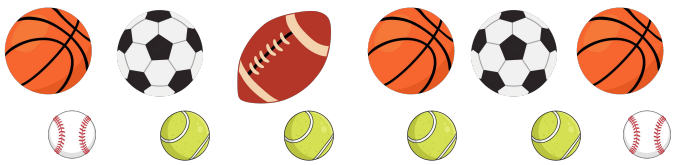




Twilight Zone

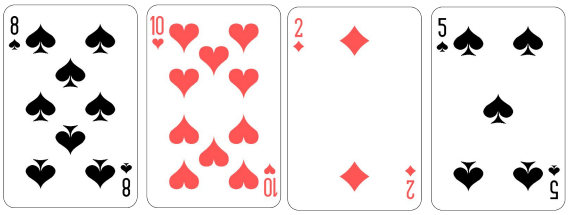
1. What fractions can you find in the pictures?
   ➔ Identify at least 2 fractions per picture.

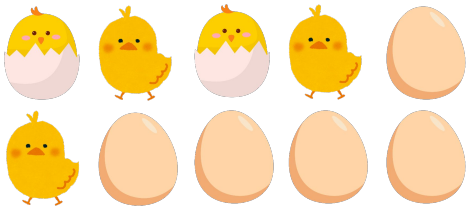


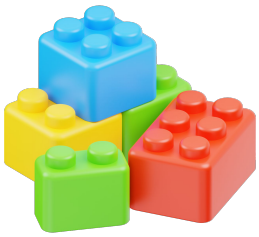


Midnight Zone

1. What fractions can you find in the pictures?
   ➔ Identify at least 3 fractions per picture.







Fraction Mat

I'm investigating:

Numerator
(Number of parts or pieces you are focusing on)

Denominator
(Number of parts or pieces in the whole)

Optional Recording Log

I'm investigating:
Fractions I've found:

I'm investigating:
Fractions I've found:

I'm investigating:
Fractions I've found:

I'm investigating:
Fractions I've found:

Answers

Below are possible solutions, not all solutions.

Sunlight Answers	
Crayons	4/7 are purple 3/7 are yellow 7/7 are crayons
Fruit	$\frac{5}{8}$ are lemons 2/8 or 1/4 are blueberries $\frac{1}{8}$ is orange 6/8 or $\frac{3}{4}$ are citrus 8/8 are fruit
Monsters	⅔ have glasses ⅓ is reading a book 3/3 are monsters
Cats	$\frac{1}{4}$ is orange 2/4 or $\frac{1}{2}$ are sleeping 4/4 are cats

Twilight Answers	
Fruit	$\frac{5}{8}$ are lemons 2/8 or 1/4 are blueberries $\frac{1}{8}$ is orange 6/8 or $\frac{3}{4}$ are citrus 8/8 are fruit
Monsters	⅔ have glasses ⅓ is reading a book 3/3 are monsters
Blocks	⅖ are green ⅕ has 6 dots ⅗ have 4 dots
Balls	3/12 or $\frac{1}{4}$ are basketballs 4/12 or ⅓ are tennis balls 2/12 or ⅙ are baseballs 11/12 are spheres

Answers

Below are possible solutions, not all solutions.

Midnight Answers	
Playing Cards	$\frac{1}{2}$ or 2/4 are black $\frac{1}{4}$ are hearts $\frac{3}{4}$ are even numbers 4/4 cards
Eggs/Chickens	5/10 or $\frac{1}{2}$ haven't hatched 3/10 have no shell 2/10 or ⅕ are still in their shell
Blocks	⅖ are green ⅕ has 6 dots ⅗ have 4 dots
Balls	3/12 or $\frac{1}{4}$ are basketballs 4/12 or ⅓ are tennis balls 2/12 or ⅙ are baseballs 11/12 are spheres