Lesson Printables

Be a rockstar and only print what you need!

Lesson Information Sheet: 2

Sunlight Zone
Activity: 3

Twilight Zone
Activity: 4

Midnight Zone
Activity: 5

Extras
Fraction Mat: 6
Optional Recording Log: 7
(Could be used when looking for fractions around your local area)
Answers: 8-9

Let's identify fractions

Why learn this?

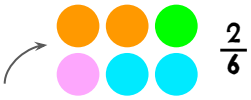
Fractions are parts of a whole. By exploring fractions around them, students develop real-life contexts for these types of numbers rather than just seeing abstract symbols on a page. When children notice fractions in everyday situations, they develop a deeper conceptual understanding of what fractions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

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

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 round, etc.



$\frac{2}{6}$

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 have holes.

Let's warm up!

Starter Activity - Model Multiplication
How many different ways can students solve 4 x 5?

To support, students could:
- Be asked guiding questions:
  - ➔ What does 4 x 5 mean? 4 groups of 5 or 5 groups of 4.
  - ➔ Could you write a repeated addition number sentence to replace the multiplication number sentence?
  - ➔ What do you remember about multiplying by 4 and by 5?

To challenge, students could:
- Find at least 5 different ways to solve the problem. Can students make a connection between multiplying by 10 and multiplying by 5? This is the last strategy shown on the solutions slide.

Let's do this!

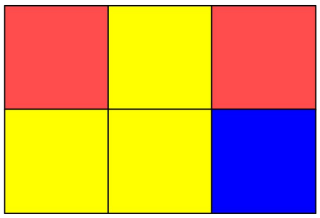
Main Activity - Students are shown 4 different pictures. What fractions can students find in each of the pictures? Encourage students to identify at least 2 fractions for each picture.

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

To challenge, students could:
- Explore trying to draw their fractions as a visual. See slide 12 for one possible example. Students should try to make equal parts in their visuals. For example, if the whole is a group of 4 pets, the visual should have 4 equal parts (these can be estimated, so do not need to be perfect).
- 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?

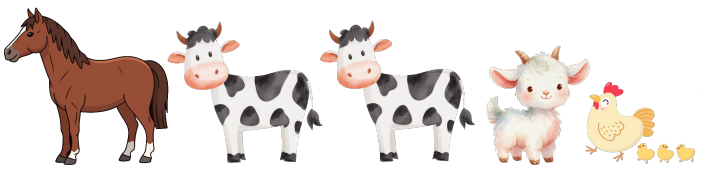
Sunlight Zone

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



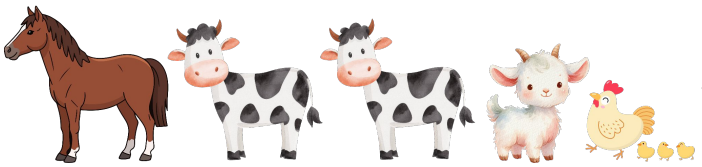
Twilight Zone

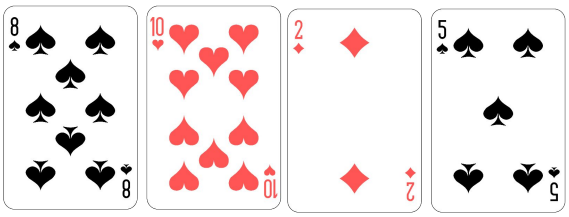
1. What fractions can you find in the pictures?
   ➔ Identify at least 2 fractions per picture.



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	
Squares	3/6 are yellow 2/6 are red 1/6 is blue 6/6 are squares
Pets	2/4 are dogs 1/4 is a hamster 1/4 is a cat
Fruit	2/5 are apples/oranges 1/5 is a lemon 5/5 are fruit
Insects	2/7 are bees 3/7 are butterflies 1/7 is a dragonfly 1/3 of the butterflies are yellow 7/7 are insects

Twilight Answers	
Insects	2/7 are bees 3/7 are butterflies 1/7 is a dragonfly 1/3 of the butterflies are yellow 7/7 are insects
Pets	2/4 are dogs 1/4 is a hamster 1/4 is a cat
Balloons	3/9 are red 2/9 are yellow 1/9 is purple 9/9 are balloons
Farm Animals	8/8 are farm animals 1/8 is a horse 4/8 have 4 legs 4/8 are chickens 1/8 is a goat

Answers

Below are possible solutions, not all solutions.

Midnight Answers	
Balloons	3/9 are red 2/9 are yellow 1/9 is purple 9/9 are balloons
Farm Animals	8/8 are farm animals 1/8 is a horse 4/8 have 4 legs 4/8 are chickens 1/8 is a goat
Playing Cards	1/2 or 2/4 are black 1/4 are hearts 3/4 are even numbers 4/4 cards
Tree Animals	2/10 of the animals are flying 8/10 are not flying 4/10 are on the ground 1/10 is a squirrel 4/10 are on in the tree