NCCA

Primary Mathematics Toolkit – Support material

Number: Fractions – Suggestions for learning at home

Why learning about fractions is important

Fractions are a crucial part of mathematics. Understanding fractions supports a deeper engagement with and comprehension of many other areas of mathematics, such as data, time, money, measuring, etc. We see and use fractions throughout our daily lives, e.g., *in recipes, when telling the time, when shopping in the sales*. Fractions can be represented in many different ways, and children should be encouraged to explore and experiment with these representations. While learning sets of rules and procedures to solve fraction problems can be useful, it is more important that children recognise and apply their understanding of fractions in different contexts.

IDEAS TO SUPPORT LEARNING

- Talk to your child about where we see fractions in daily life, e.g., *chocolate bars, pizzas, clocks, newspapers, etc.*
- Involve your child in cooking activities using fractions, e.g., *show me half of the pizza, can you cut the cake into quarters?*
- Explore fractions as part of a whole, e.g., *there are four plates on the table, three are white and one is blue, how could we show this using fractions?*
- Investigate fractions using probabilities, e.g., *I tossed a coin four times, I got heads twice and tails twice, how could I represent this in fraction form?*
- Explore fractions through fair-sharing, e.g., *we have one chocolate bar (cut into 8 squares) and 4 people, what fraction of the whole chocolate bar will each person get?*
- Compare measurements around the home for further fractions investigations, e.g., *the length of the table is eight times the length of the book, that means the length of the book is 1/8 of the length of the table.*
- Car games involving fractions:
  Estimate the time it will take to reach a destination and convert it into fractions, e.g., *if the estimated time of arrival is 3:30 PM and it's currently 2:15 PM, ask children to calculate what fraction of an hour is left until arrival (1 hour and 15 minutes, or 1 ¼ hours).*
- Keep track of the distance travelled in fractions.
- Involve children in calculating the fraction of fuel used or remaining in the vehicle.

BOOKS

- *All the Little Ones and a Half!*, Mary Murphy, 5+ years
- *Jump, Kangaroo, Jump!*, Stuart J. Murphy, 7+ years
- *Sir Circumference gets Decima's Point*, Cindy Neuschwander, 7+ years
- *The Grizzly Gazette*, Stuart J. Murphy, 7+ years
- *The Multiplying Menace Divides*, Pam Calvert, 9+ years
- *Fractions in Disguise*, Edward Einhorn, 9+ years
- *Multiplying Menace: The Revenge of Rumpelstiltskin*, Pam Calvert, 9+ years
- *Sir Cumference and the Fracton Faire*, Cindy Neuschwander, 9+ years
- *Pythagoras and the Ratios*, Julie Ellis, 9+ years

**Your local library provides a wide range of free books and resources which support in developing children's mathematical learning*

GAMES / ACTIVITIES

- Who can create the biggest fraction? Roll two dice, make the smaller number the numerator and the bigger number the denominator. Play in groups and see who creates the larger fraction. If the same number is rolled twice in a row that means the fraction is worth 1 whole unit i.e. 2/2. = 1.
- Fraction Bingo
- Fraction Snap
- Fraction Hopscotch
- Create your own fraction wall
- Make a picnic using fractions, e.g., *one quarter of a banana, half a chocolate cake, etc.*

Developed in collaboration with **Luke Sweeney, Primary School Teacher, Co. Kildare**

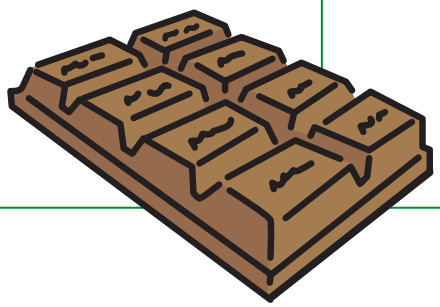
LEARNING ONLINE

- Help My Kid Learn www.helpmykidlearn.ie
- Scoilnet www.scoilnet.ie/primary/theme-pages/mathematics/
- Maths Week Ireland Parents' Zone www.mathsweek.ie
- Maths Eyes https://haveyougotmathseyes.com/

*Useful terms to search online: fractions, number, learning, primary, maths, equivalence, convert fractions, decimals, percentages, ratios, games, activities

ARTS AND CRAFTS

- Create a comic book strip by dividing a page in equal sections, e.g., *halves*, *quarters*, *eighths*.
- Design and make a pizza using paper plates, show how this pizza can be shared between different numbers of guests.
- Design and make a game using fractions as the scoring system.
- Make fraction bingo cards.
- Design geometric patterns on black paper:
  - Cut out a range of 2D shapes using different coloured paper (a red square, a yellow circle, etc.).
  - Cut these shapes into different fractions, for example, cut the square into quarters and the circles into halves.
  - Arrange these fractional parts into your own geometric pattern.



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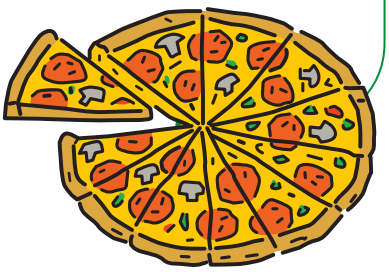
YOUR OWN IDEAS



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