

Exploring Fractions – Early Level

E&O: I can share out a group of items by making smaller groups and can split a whole object into smaller parts. MNU 0-07a



LI: To split large items or groups of items into smaller parts – halves

SC: I can split a whole into smaller parts

I can use the word 'equal' to describe halves

I can share out a group of items into smaller equal groups

Introduction

Introduce/talk about fractions that the pupils know – what do they mean, what is a fraction, when do we need to split things up or share them?

Development – a variety of different activities that can be tried

Busy Bee Game

Pupils run around the playground and get into groups of certain sizes when called – is there anyone left over?

Apple Bird Feeders – links to RSPB Wild Challenge – Help Nature

<https://blogs.glowscotland.org.uk/ea/learningoutdoorsupportteam/make-simple-bird-feeders/>

Find an area to sit in the outdoor space. Explain that we are going to carry out an experiment to see whether the birds prefer apples and seed, or just apple. Make some predictions. To do this, we will need to cover half of the apple in seeds. Talk about what a half is – where would pupils half the apple? It can be done up and down the way or across the middle. You can demonstrate either by cutting an apple in half or by putting an elastic band on to show half. Ask pupils where to put the elastic band on their apple and support them to do this. Pupils choose a side to cover in seeds and once complete, the apples can be put in trees or hidden in the grounds for the birds to eat and to be checked in about a week.

Alternative activity: Pupils could put the elastic band on their apple and see if they can half the amount of seeds they have e.g. 5 seeds on each side etc.

Collecting and sharing objects and materials

Link to playing the Busy Bee Game – pupils run around, buzzing like bees and adult calls a number, pupils get into groups of that number – practice of physically seeing people shared into different groups. Possible extension – when pupils are in groups can they split themselves into smaller equal groups?

Next, ask pupils to collect a certain number of natural materials (e.g. 10) – can they split them into 2 groups of equal size – use this to explain halving a group of items and try with different amounts of objects.

Resources – natural materials, sticks, chalk

Habitat Heap – links to RSPB Wild Challenge – Help Nature

<https://www.rspb.org.uk/fun-and-learning/for-teachers/schools-wild-challenge/activities/habitat-heaps/>

Create a habitat heap for bugs and beasties by digging a hole and filling it with sticks, stones, leaves, twigs, grass etc.

Pupils collect sticks to go into the habitat heap – break them into halves before they go into the heap and store them in two piles – count the piles before we put them in – are they equal? Could we share the sticks more? How can we make the piles equal?

Activity 2 – Stick Fraction Wall

Collect one big stick and measure it – how many hands is it? How many feet? Where does it come up to on your body? Can pupils break it in half or draw a line on it with chalk/use elastic bands to show half?

Pupils try to find more sticks that are the same size either by breaking or placing two sticks together (like halves). Can they do they for more than two?

<https://creativestartlearning.co.uk/maths-outdoors/outdoor-maths-using-sticks-to-understand-fractions/>