Number Champions
1 2 3 4 5
fun + skills = confidence

Resource for Year 2 Core Curriculum

Year 2: Multiplication: Understand and use '÷ is inverse of x'

Picking up the Daisies

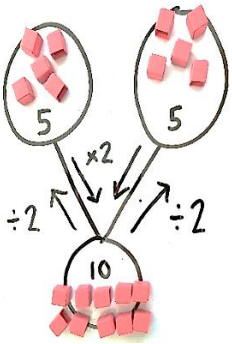
Aim of the Game

Help Ben choose a path to his flower basket. If he goes past some daisies then double his daisies! If you go past a mud splat then half his daisies! How many daisies will Ben have at the end?

You will need




Before you start



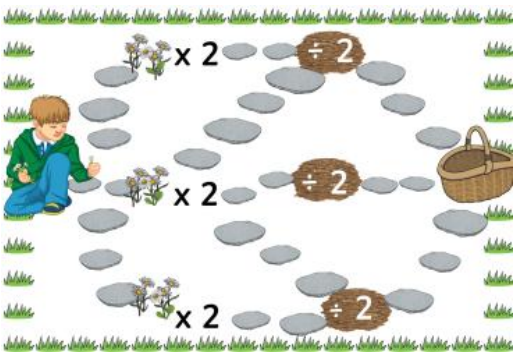
Practice multiplying by 2 and then dividing by 2 and link to doubling and halving. Roll a die to find the starting number of daisies e.g. 5.

Set up a part/part/whole model to demonstrate doubling is the same as multiplying by 2 or adding 2 equal groups of 5 and that halving is the same as dividing by 2 or sharing equally into 2 groups.

In the example shown we can see:
5x 2 = 10 and 10 ÷ 2 = 5

Multiplication and division are the inverse –the reverse of each other they 'undo' each other. This is the concept practised in the game.

Play



Introduce Ben. He loves daisies! We need to help Ben choose a path to his basket.

If he goes past some daisies then he picks the same amount again so we **multiply his total by 2.**

If he goes past a mud splat then he drops **half** of the total so we **divide his total by 2.**

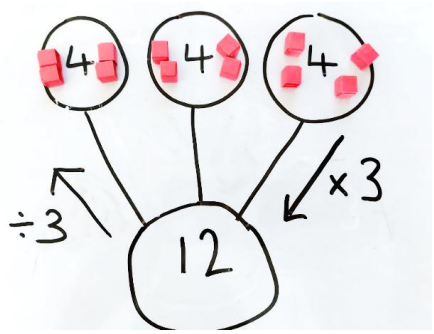
How many daisies will Ben have at the end to put in his basket?
What if he went a different way?
What do you notice?

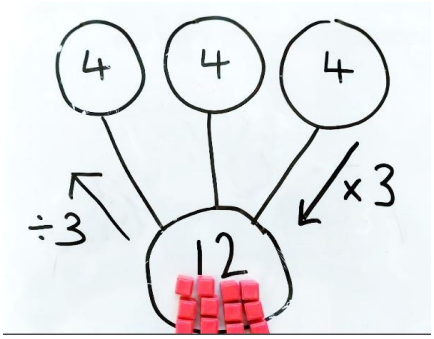
Reflect

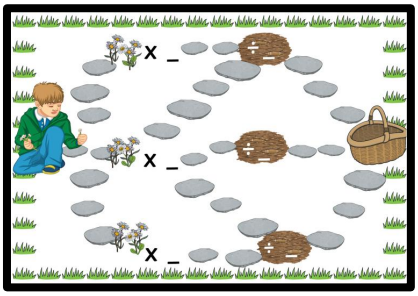
- What do you know about division and multiplication from this game?
- Would Ben ever be able to put more than the start number in his basket? How do you know?

Adapt

- Test the rule with another starting number.
- Try it with multiplying and dividing by other numbers. E.g. multiplying and dividing by 3 – practice with part/part/ whole then adapt and play the blank version of game.







Maths talk

This problem gives the child a chance to explore the inverse relationship between multiplication and division and the order or numbers when multiplying and dividing. They can make predictions and generalise with supportive questioning. Base 10 (Dienes) will support doubling and halving until they are confident with the known facts.

Things to look out for

- Are they using the part/part/whole model to help them check multiplying and division.
- Are they spotting a pattern?
- Can they remember the number facts?
- Do they notice a similar rule with addition and subtraction?

Mathematical Language

multiply	divide	double	halve
inverse	pattern	undo	reverse