

Thinking while Moving - Mathematics

Bean bag fractions

Stage 3 mathematics

Strand: Number and algebra

Sub strand: Fractions Decimals

Activity set-up

- 4 hoops side-by-side with a line marked approximately 10 – 15m away from hoops.
- Place a whiteboard behind each hoop.
- On the line opposite hoop 1 place 3 bean bags, hoops 2 place 5 beans bags, hoop 3 place 6 bean bags and hoop 4 place 10 bean bags.
- Label hoops as 3 throws, 5 throws, 6 throws and 10 throws.
- Play [Linky Bear](#) to form student groups of 4.

Pre-task: Students will need to have had experience with identifying fractions of an amount and ordering fractions on a number line.

How to play

- Student's take it in turns to throw bean bags into hoops while standing behind the marked line.
- Students calculate how many bean bags they successfully threw into each hoop.
- Students represent amount as a fraction on whiteboard.
- Students order fractions on whiteboard in ascending order using visual of bean bags as concrete material.
- Repeat activity as required.

Increase/decrease challenge

- Represent amounts as a fraction and decimal.
- Increase or decrease the number of bean bags thrown to alter the denominator.
- Represent fraction in its simplest form
- Order fractions as a whole class.

Equipment/Resources

- 4 hoops per group
- 24 bean bags per group
- 4 whiteboards per group
- 1 whiteboard marker per group

What's some of the maths

Mathematicians compare the relative value of unit fractions by placing them on a number line between 0 and 1.

(Communicating, Reasoning)

Mathematicians investigate and explain the relationship between the value of a unit fraction and its denominator

(Communicating, Reasoning)

Let's talk and think like mathematicians

How did you use your knowledge of fractions to complete this task?

Is there more than one way to represent a fraction of an amount?

How did you achieve a score of 1 whole?

Did the amount of bean bags you threw effect the fraction?

How?

Suggested mathematics outcomes

MA3-7NA: Compares, orders and calculates with fractions, decimals and percentages.

MA3-3WM: Gives a valid reason for supporting one possible solution over another.