



Fascinating Captivating & Absorbing Learners

Game of 31

The aim of this task is to reach the number '31' before your opponent. The materials are set out as shown below:

A 2 3 4 5 6

A 2 3 4 5 6

A 2 3 4 5 6

A 2 3 4 5 6

- I played the game against my opponent and I won 3 times out of 10.



- I won $\frac{3}{10}$ or 30%
- Cindy won $\frac{6}{10}$ or 60%
- Maddy won $\frac{1}{10}$ or 10%

After thinking about the game, I realised that there might be an easy way to win everytime.

After a group discussion we realised that there is a special number that we need to reach to make sure that you win everytime. We are going to call this number our Target Number.

To find our target number we can use algebra to help us.

t = target number
 g = game
 h = highest card

The value 'h' can change but the algebra equation stays the same.

Algebra equation:

$$t = g - h - 1$$

$$t = 31 - 6 - 1$$

$$t = 24$$

The first person to reach 24 controls the game and wins!!

We tested other numbers with the same formula and it worked.

Success!



What features encourage learning?

- Choice & ownership
- Concrete materials
- Mixed ability - 7 year gap
- Visual & kinaesthetic
- Genuine context & challenge
- Co-operative group work
- Open-ended / investigative
- Multiple entry & exit points
- ...



'Engaged' is not
enough



'Engaged' is not enough

- Engaged - occupied



'Engaged' is not enough

- Engaged - occupied
- Engaged to be married



'Engaged' is not enough

- Engaged - occupied
- Engaged to be married
- Engaging gears



'Engaged' is not enough

- Engaged - occupied
- Engaged to be married
- Engaging gears
- Engaging in conflict/war



'Engaged' is not enough

- Engaged - occupied
- Engaged to be married
- Engaging gears
- Engaging in conflict/war
- Engage in conversation



'Engaged' is not enough

- Engaged - occupied
- Engaged to be married
- Engaging gears
- Engaging in conflict/war
- Engage in conversation
- Engaged to work



'Engaged' is not enough

- Engaged - occupied
- Engaged to be married
- Engaging gears
- Engaging in conflict/war
- Engage in conversation
- Engaged to work
- Engaging personality



Fascinate
Captivate
Absorb



Fascinate
Captivate
Absorb
it's engagement
... with passion