CURRICULUM, PEDAGOGY AND BEYOND









C01-Our Go To Tasks and Favourite Hands-On Materials

Russell McCartney & Chris Terlich





C01- Our Go To Tasks and Favourite Hands-On Materials PRIMARY GRADES 2-6

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Our Go To Tasks and Favourite Hands-On Materials



- Student Friendly Cards
- Bead Strings
- Dice (6 or 10-sided)
- Two-Tone Counters
- Mini Whiteboards











Game of 31 (Maths 300)

- This is a 2 or 4 player game.
- Set up the game with cards 1-6 of each suit.
- First, decide who is going to go first.
- The first player will flip a card and say the number the aloud.
- The second player will then flip a card and add on to the previous total.
- This alternates until one player lands on <u>exactly</u> 31.
- Reset and play again.



Game of 31 Reflection

What maths concepts are being explored?

How could you enable this game?

How could you extend this game?



You must take 5 or 10 beads per turn. Whoever lands on 60 wins.

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- What is the mathematics that you are involved in?
- What strategies are you using?
- Do you want to go first or second?

Turn and Talk



Reference: Prof. Di Siemon

0 10 20 30 40 50 60



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PAIR Game – Damult Dice

- Damult Dice can be played with 2-4, but fewer players is usually better.
- Players take turns rolling three dice on their turn.

PAIR Game – Damult Dice

- Player 1 rolls all 3 dice (3, 6, 1)
- Choose 2 dice to add together (6 + 1 = 7)
- Multiply the total of the 2 dice by the remaining dice (7 x 3)
- Draw it on your board
- This is Player 1s score
- The first player to fill the board wins

Student example



Student example

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PAIR Game – Damult Dice

- On your turn, draw an array on the board. One side of the array is the sum of two dice of your choice; the third die gives the other side. In other words, you add two of your rolls together, and multiply by the third.
- That is your score for the turn.

Model a Game

Ask student to fishbowl around a table. Have two students play against each other while the rest of the class watches

> Blockout Extended Board for Damult Dice Variation



Model a Game

With the students still gathered around, Ask one of the students to roll, decide and draw. Show it to the students and say the multiplication fact out loud.

I make sure that I model the strategy I want the students to use. So I look at roll decided what to add and what to multiply then say the problem out aloud, eg: "Four times three ..."

Draw it and think about it and say the answer ... "twelve"

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Counter Toss (ReSolve)

- Toss your 4 two-coloured counters onto the table.
- You score 5 points for every yellow and 2 points for every red.



 Play 5 rounds, recording your scores as you go.



Counter Toss (ReSolve)

- What is every possible score?
- What if there were 5 counters?
- What do you notice?



What if you changed the scoring system?

Diffy Squares



Diffy Squares

Draw a square, and pick four numbers to go in each of the corners.

Put a dot on the midpoint of each side, and find the positive difference between the numbers on the closest corner.

Now connect the midpoints. Lo and behold, you've got yourself another square

Diffy Squares example



Diffy Squares example



Diffy Squares example



Continue until you reach all zeroes.

Enablers & Extenders

Enablers

- Can you do it with a triangle instead of a square?
- Can you do it with even numbers?

Extenders

- Will this process always end in all zeroes?
- If not, what's the longest it can last?





Event App

App Download Instructions

Step 1: Download the App 'Arinex One' from the App Store or Google Play



- Step 2: Enter Event Code: mav
- Step 3: Enter the email you registered with
- Step 4: Enter the Passcode you receive via email and click 'Verify'. Please be sure to check your Junk Mail for the email, or see the Registration Desk if you require further assistance.





Be in it to WIN!

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A02 - (Year 1 to Year 6) Supporting High Potential and Gifted Learners in Mathematics

Pedagogy

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R∃ Speaker



Dr Chrissy Monteleone

