

Making best use of the two-minute pockets of time

When outside your classroom:

- Place two or three dice in a clear plastic container to keep with you. Quickly roll the dice. Have the kids use the numbers that come up to get as close as possible to a particular number using any operations that you define and some or all of the dice e.g. having rolled a 3, 4 and 5 try to get 20...
 - $3 \times 4 + 5 = 17$
 - $3 \times 5 + 4 = 19$
- Place two dice in a clear plastic container to keep with you. Roll the dice to get two numbers. The students pair up, and each partner takes a turn coming up with a third number that would go with the first two e.g. having rolled a 3 and a 5...
 - 15, because $3 \times 5 = 15$
 - 2, because $5 - 3 = 2$
 - 1 and $\frac{2}{3}$ because $\frac{5}{3}$ is 1 and $\frac{2}{3}$
- Have students work with a partner/s to make a particular number with their fingers. They need to use some or all of their hands depending on how tricky you want to make it e.g. make the number 5 using...
 - All four hands ($2 + 1 + 1 + 1$)
 - Three hands ($3 + 1 + 1$ or $2 + 2 + 1$)
 - Two hands ($1 + 4$ or $2 + 3$)
- Having rolled two dice, think of at least three numbers that would have both of the dice numbers as factors e.g. having rolled a 2 and a 5
 - 10, 20, 30

When inside your classroom:

- Play “snakes and ladders” with two dice. Kids can choose to move forwards by both, backwards by both or forwards by one and backwards by the other. This helps them to strategize how to get around the board, by avoiding the snakes and aiming for the ladders. You can even have a magnetic version of this on your wall/board and have students each lesson take turns moving a particular piece. The game is therefore ongoing and does not need to finish within a certain time period.
- Play “what happened?” Choose a starting number and an ending number and students have to work out what operation happened to get from the start to the end e.g. Starting number is 4 ending number is 20:
 - I could have multiplied by 5
 - I could have added 16
- Play “biggest, smallest and in between”. Roll three dice and have students create at least three different numbers using those digits. They then create a quick sketch of a number line, with the smallest number at one end, the largest at the other end and the third number spaced using relative size. You can play this game in teams by having a team come up with the largest and smallest number possible using those digits, then having each player come up with a different possible number and come and place it on the line between the largest and smallest in its correct position. Variation: multiply two of the three digits to come up with a number to place on a number line.
- Play a fractions version of “biggest, smallest and in between”. Roll three dice. Use two of the digits to make the smallest possible fraction. Repeat, making the largest possible fraction (you can decide if you want to include fractions bigger than one or not). Draw a blank number line with these two fractions at either end, and then make as many other fractions as you can and place them in their correct relative position on the line. To make this easier, just use a number line between 0 and 1.

Five-minute activities: (rotation groups)

1. **Matching cards** for single, two or three digit place value. These have different representations on them (e.g. words, digits, MAB or bundling sticks) and can be used to play memory, go fish, snap or just match them all up with other ones the same. Make your own using templates on our website, or buy the sets from us directly.
2. **Partitioning cards:** Using cards with dots in tens frames to show the numbers from 1 to 9, try these activities: Ready-made partitioning cards can be bought from us.
 - Make ten from “go fish”: instead of asking for a card that matches, ask for the number that adds to the one you already have to make ten (e.g. if you have a 3 ask for a 7)
 - Make any other number from “go fish”, but using either addition or subtraction. E.g. if you were playing “make 6” and you had a 2 then you could ask for either a 4 ($2+4=6$) or an 8 ($8-2=6$). Expand this with extra cards from 10-19.
 - Make sets of three from “go fish” – make sets of any three cards where the two smaller numbers add together to give the larger number. So, if you had a 3 and a 5 you could ask for 8 or for 2. Make any set of 3.
 - Partitioning train: deal out 5 cards to everyone, then turn over two cards and place them next to each other. A player can use the number on the end of the “train” with any two cards in his/her hand to make a set of three, where the two smaller numbers add together to give the bigger number.
3. **Make-ten dominoes:** Play dominoes, but matching up pairs to make ten instead of just matching the same number. E.g. if there is a nine then you would need to join on a one. Ready-made dominoes can be bought from us. You could also use these to make other numbers.
4. **Hundreds board jig saw puzzle:** Photocopy and laminate a hundreds board, then cut it up into different pieces. Place the pieces into a zip lock bag as a simple jig saw puzzle. For a more advanced puzzle, take a piece from each of 5 different hundreds boards and put it into one bag. Kids have to make the board, complete with overlaps and gaps, and then write down all the missing numbers.
5. **Board games with two dice** (e.g. snakes and ladders): Kids can decide to go forwards by both numbers, backwards by both, or forwards by one and backwards by the other. This adds an element of strategy to a game like snakes and ladders. I tend to put the two dice into a clear plastic container so that they don’t get thrown or lost. This also limits clean-up time.
6. **Squares from a hundreds board:** On an A4 sheet, create a series of squares that are joined at the sides or corners in an interesting pattern. These represent some of the squares from a hundreds chart. Laminate the page. For the activity, use a permanent pen to write a two digit number in one of the squares. Kids use white board pens to fill in the other numbers based on the one that they are given. They wipe off the page at the end of the activity so that it is ready for the next group to use, but your number is still there. What number you choose and where you put it makes the task much easier or harder.
7. **Matching 3D representations with cards:** Using multilinks cubes to build different shapes and matching up a top/side view and a list of properties (e.g. number of cubes).
8. **Dice games:** Put three dice into a clear plastic container (making sure that they don’t roll away, get thrown or lost). Shake the dice to get three numbers. Draw a card from 1-30 and try to use the numbers once only to make as close to the total as possible. For a simpler version, just nominate a number of the day (e.g. 12). Each time the dice are rolled, students need to use the numbers to make as close as possible to 12. You can vary the rules here depending on the age and ability of your kids – use all four operations or just two, use the numbers once only or as many times as you like, use all three numbers or just two...
9. Making a number in as many ways as possible on **mini magnetic white boards**. They can stick on magnets to make it, write the words (or stick on magnetic words), draw it... Then have one person in the group take a photo of them holding their board at the end.

Rotation Group Activity Cards:

Name:
 School:
 Address:
 Town: Postcode:
 State: Email (to receive invoice).....
 Telephone:
 Order No (if applicable):
 Signature:

Fax: (07) 4422 0004

Email: admin@kennedypress.com.au

Mail: PO Box 1879, Townsville QLD 4810

ABN: 33 139 622 049



	Price (incl GST)	Number of items	Subtotal
Single-digit matching cards with instructions	17.95		
Two-digit matching cards with instructions	17.95		
Three-digit matching cards with instructions	17.95		
Partitioning cards with instructions	17.95		
Make-ten domino cards with instructions	17.95		
Game set: all five games, with instructions for 25 games to play in rotation groups. Saves \$15.	74.95		
Games subtotal			
Individual website subscription for one teacher for 12 months. <u>Email addresses of subscriber(s):</u>	249.95		
Professional Development Videos: Teaching Back to Front – two DVD set with 8 lessons	200.00		
Small schools work program: Specially designed work program for one and two teacher schools. Once-only cost of \$150 and ongoing cost of \$6.95/student per year for web access. <u>Teacher(s) email address:</u>	150.00 plus 6.95/student	(Number of students)	
Subtotal (Includes GST):			
Postage and Handling for books: 5% of books subtotal			
Coupon code or other discount if applicable			
TOTAL			

PLEASE NOTE: Prices are current at June 2013 and are subject to change without notice
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