

Wynn Vale Primary School



Games and activities to
play at home with your
children.

Junior Primary students

Snap!

Find a pack of cards and remove all the picture cards. There should now be forty cards left: four aces, four twos, etc.



Starting with 20 cards each, take it in turns to turn over and deal a card. If both top cards are the same number, shout 'SNAP'! The first person to shout it correctly wins all the cards on the table. The winner is the first person to collect all the cards.

Roll the Dice.

Ask your child to roll a dice.

They score a point for correctly telling you how many spots are showing on the top.

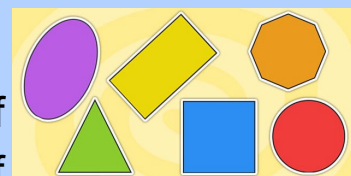


Initially, for the first few times you play this game, they will count the spots. This is to be encouraged, so please do not give in to the temptation to get them to shortcut.

Eventually, they will stop counting to 5 when they see (for example) a five appear on the top, but this must be when they decide they are ready.

For children who find this very easy, ask them to write down the figure '5' as well for a bonus. This will help them associate the numerals with the numbers themselves and they will start to get a sense of the 'five-ishness' of five.

2-D Shape Hunt



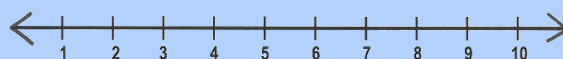
Have a walk around your home with your child, and if you have one, a digital camera. Try to take pictures of a range of different 2-D shapes. To start with, just work together to find lots of different ones. See which ones your child can name. Can they spot and name a square, rectangle, triangle or circle? If they can do these shapes easily, try more challenging shapes.

Once they understand these shapes, get them to take pictures of as many of each as possible.

Optional extra: why not help your child to upload and perhaps print out a page with pictures of lots of these shapes from around the home?

Of course, this does not have to be done in the home – it could be done in the local area or nearby town.

Number Line



For this activity, you will need a pack of cards.

Remove three suits and all of the picture cards from the one remaining suit, leaving the ace to ten cards of one suit.

Shuffle all of the cards so that they are not in any order.

Your child will need to arrange the cards in ascending numerical order from ace to 10 (You may need to explain that the ace is the same as 1). Can they do it in descending order?

To extend your child, you could shuffle the cards and then remove one or two before asking your child to repeat the process and state which cards are missing. You could also use ace to 10 of more than one suit.

Card sort

For this activity, you will need a pack of cards.

Remove all of the picture cards, leaving the ace to ten cards.

Ask your child to organise/sort the cards in different ways.

This could be done by colour, suit, number etc. How many are in each group?

Don't prompt your child to begin with, allow them to explore and if necessary struggle a little.



Dice

For this activity, you will need two dice.

You and your child will each roll one die.

Your child will need to state who has the highest number.

Don't prompt your child to begin with, allow them time to work it out and, if necessary, struggle a little.

If your child is able to do this confidently, ask them what the difference is between the two die. E.g. How many more dots are there on this die?

To extend further, why not use two dice each and repeat the activity?



Dots



This is a good game for quick recognition of numbers (called ‘subitising’) without counting.

Instead of playing the actual game, simply let your child play with the dominoes and ask them things like “How many spots are on this end of the domino?”, and “How many spots are on the domino altogether?” This will help your child become a confident counter.

The aim is for them to begin to recognise how many spots are on the dominoes without counting.

Progression can be made to playing the game of dominoes when they are ready.

Songs!



Singing with children is great – they become self-conscious far too quickly these days, so take the opportunity to sing when ever possible.

For this activity concentrate on songs with lots of repetition and patterns.

Here are a few favourites. If you can use actions and/or puppets, so much the better.

Five Little Ducks Went Swimming One Day

Five Little Speckled Frogs

Ten Green Bottles

Ten Fat Sausages Sizzling in a Pan

1,2,3,4,5, Once I caught a Fish Alive

Hickory Dickory Dock

There were Ten in the Bed

This Old Man, He Played One

How Many?

Counting forms an essential part of children's early mathematical experience and they should be encouraged to do it as often as possible until they become fluent counters.

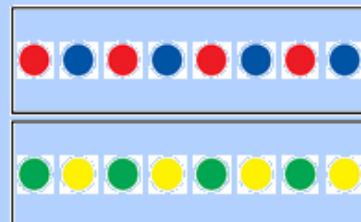


Have set of objects (up to 10 at first, then to 20 and further if necessary) and ask them to count them out loud with you.

Vary the number and type of object. If they are ready, you can ask them to imagine things and try to count those as well. For example: "How many people are in our family?", or "How many times have you eaten today?"

Patterns

The understanding of patterns is at the heart of all mathematics, so here is an activity that is kinaesthetic and which will help children develop their thinking.



Collect lots of small coloured items (e.g. counters or pom poms). You need two different colours for this game. Now roll a dice. If it is a 3, they must lay 3 items of the same colour in a row. Roll it again (let's say it's a 2) and lay 2 items of the other colour at the end of the line. Your child's task is now to continue this to make a repeating pattern as long as they can:

If they enjoy this and are confident you could extend to 3 colours. I'm sure your teacher would love to see digital photos of this.

Spot The Numbers!

Go out for a walk with your child and try to spot as many numerals as you can. You will be amazed at how many there are! Talk to your child about how many different types of numbers they can spot.

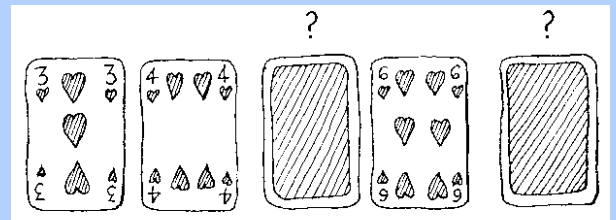


Here are just a few examples to show you the range:

House numbers, car number plates, phone numbers, bus times, speed limits, distances on signs, opening times, prices, phone numbers – and there are lots more!

What's missing?

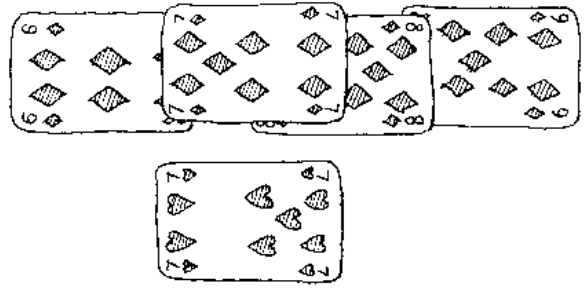
Using only one suit of cards from ace to nine in a standard pack of playing cards, sort the cards from smallest to largest or vice versa.



Turn three of the cards face down. Can they work out which numbers have been turned over?

Sevens

This is a game for two to four players. Shuffle a pack of cards and deal the whole pack out. Whoever has the seven of diamonds, places it face up on the table.



The next player must put down the six or eight of diamonds building up or down. Alternatively, a different seven can be put down to start another row.

The first player to get rid of all of their cards is the winner.

More or Less

This is a game for up to four players. Shuffle the cards and deal seven to each player, with the rest of the cards placed face down on the table. The top card is then turned face up next to the pile to begin the game.



Players need to take turns to place a card with a value one more or one less than the upturned card on top of it (e.g. if a five is face up, a four or six may be placed on top of it). If a player cannot go, they pick up a card from the pack.

The winner is the player to get rid of all of their cards first, or the one who has the least left if no more moves are possible.

Count up

Spread a set of dominoes face down on the table.

Each player chooses a domino and counts the number of spots they have.

Whoever has the highest number of spots, keeps both dominoes. If the total is the same, each player keeps their own.

The winner is the player with the most dominoes at the end.



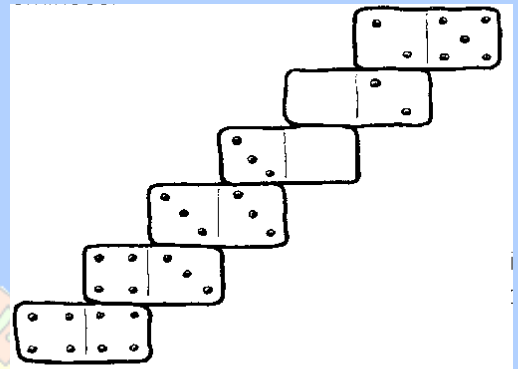
Stairways

Using a set of dominoes, make a long stairway with all of the dominoes.

The numbers that are touching each other need to be the same.

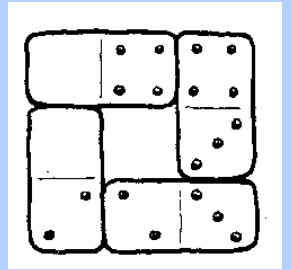
Challenge:

Can you build a stairway where the touching numbers have a difference of 1 or 2?



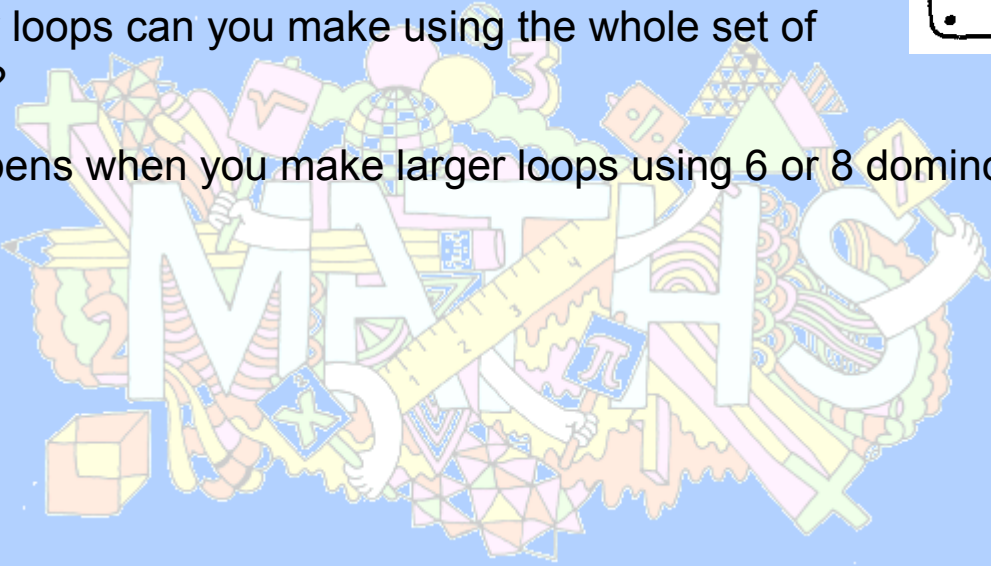
Loops

Can you make a loop of four dominoes, where touching numbers are the same?



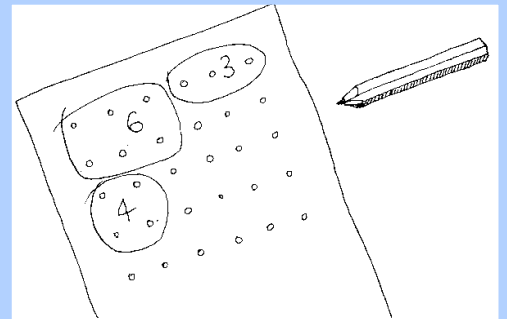
How many loops can you make using the whole set of dominoes?

What happens when you make larger loops using 6 or 8 dominoes?



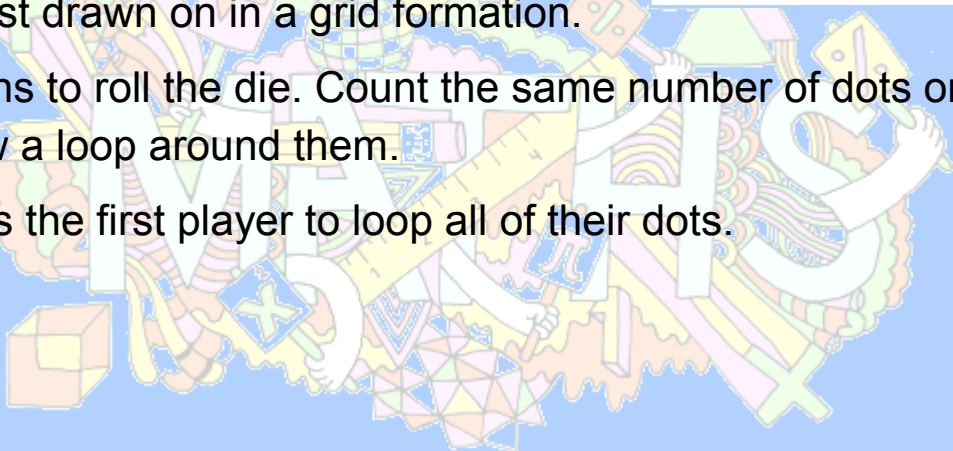
Dotty Counting

You need a ten-sided die with numbers 0-9 to play this game. You will also need a sheet of square dotted paper for each player. If you don't have this type of paper, plain paper will work with dots drawn on in a grid formation.



Take it in turns to roll the die. Count the same number of dots on your paper and draw a loop around them.

The winner is the first player to loop all of their dots.



Bonds Snap!

Using a standard pack of playing cards, remove all of the picture cards (jack, queen, king and joker) to leave 40 cards.



Each of the two players is dealt 20 cards. As with regular snap, players take it in turns to lay a card face up in the middle of the table one on top of the other. The difference with this game is that you shout 'SNAP' if the top two cards add up to ten. The first person to shout it correctly, picks up and keeps all of the cards on the table.

If they are ready for more challenge because they know all of these bonds well, why not play bonds to 9, 11, 15, 18 etc.?

Roll Two Dice.

Ask your child to roll two dice.



Using the top number on each dice, can they make a correct number sentence? For example, if they roll a 2 and a 4, can they state that two add four equals six? If they can, they score a point. Can they vary the vocabulary they use; 'add', 'plus', 'and' or 'the sum of'. For a bonus point, can they work out the difference? For example, four minus two equals two. Variations of the vocabulary are 'minus', 'subtract', 'take away' or 'the difference between'.

To increase the challenge, play with three or four dice or vary the rules in other ways.

Clock Watch

When learning about time, it is best to do it gradually. Spend time looking around your house at the variety of clocks/watches you have, most of them will be digital but hopefully at least one is an analogue clock.



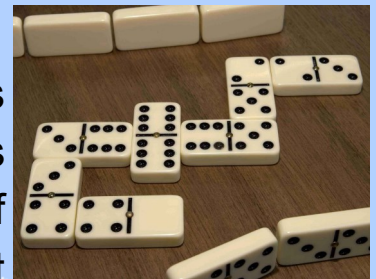
You can always make a clock by drawing a large analogue clock using a paper plate with lollipop sticks as hands.

To begin with, discuss the numbers on the clock. Remind them that the big hand pointing to 12 means that it is 'something o'clock'. You can move the hands around and ask them what time it is. It is also important to give them a time and ask them to move the hands to make that time on the clock.

A good thing to introduce, if you are able to, is having a digital clock and analogue next to each other (set to the same time) in their room so that they can begin to make the link between the two.

Dominoes

If you don't know the rules, it is easy to find out! This is a good game for quick recognition of numbers (called '*subitising*') without counting. Cheap sets of 28 dominoes are readily available from discount shops.



In essence, the idea is to make a chain of your dominoes, but where dominoes touch, the two touching numbers must match.

Full sets of rules and some interesting variations can be found by searching the internet for 'how to play dominoes'.

If you are willing to spend a bit more money, there is a variation of this game in shops called Triominoes. This game is more challenging for children and adults too!

3D Shape Hunt



Have a walk around your home with your child, and if you have one, a digital camera. Try to take pictures of a range of different 2-D shapes. To start with, just work together to find lots of different ones. See which ones your child can name. Can they spot and name a square, rectangle, triangle or circle? If they can do these shapes easily, try more challenging shapes.

Once they understand these shapes, get them to take pictures of as many of each as possible.

Optional extra: why not help your child to upload and perhaps print out a page with pictures of lots of these shapes from around the home?

This does not just have to be done in the home – it could be done in the local area or nearby town.

Count on

This is an easy game for two players which needs no equipment at all. One of you chooses a number from the first column (the size of jump), and the other chooses a number from the second (the starting number).

SIZE OF JUMP	STARTING NUMBER
2	0
3	5
4	6
5	7
10	10

Taking it in turns, you must say the next number in sequence.

So, if you chose to start with jumps of 2, and your child chooses to start at 7, the conversation would go (hopefully):

You: "7"

Child: "9"

You: "11"

Child: "13" etc.

Stop when you get up to 50, or whenever you feel that your child is struggling, and swap roles. Repeat this until you have got to 50 at least 5 times.

Count Back

It is also important for children to learn to count backwards. Once they are familiar with 'Count On', introduce this game to them.

It is exactly the same as 'Count On', however the starting number will be higher and players will count backwards/down to zero.

So, if you chose to start with jumps of 2, and your child chooses to start at 45, the conversation would go (hopefully):

You: "45"

Child: "43"

You: "41"

Child: "39" etc.

SIZE OF
JUMP

2

3

4

5

10

STARTING
NUMBER

50

40

45

42

29

Number Plate Totals

This is a good one for a long, boring car journey. All of us have experienced the dreaded 'are we there yet?' moments and this is one way to alleviate it!



Ask your child to find and read different number plates (see above) on a nearby vehicle, and get them to add up all the digits in it. They can also choose a number-plate for *you* to calculate the total.

You could even offer a bonus for the biggest total found that journey/day/week/ever!

Domino Addition

For this game, you will need a full set of dominoes a stopwatch and 13 post-it notes numbered from 0-12.

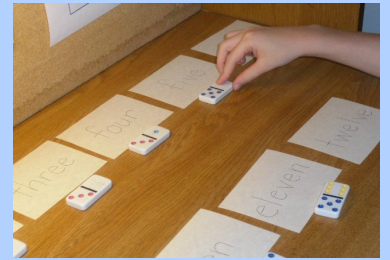
Place the post-it notes on the table in a line in numerical order.

All of the dominoes should be spread out face down on the table.

When you say go, your child turns over the first domino. If they turn over one with three dots and four dots, they would say “3 add 4 equals 7” and place the domino under the post-it with 7 on it. They then turn over the next domino. Repeat this until all of the dominoes have been placed.

As they understand the game, begin to time them, can they set a new ‘personal best’?

After the first game, count how many are in each pile, is there a pattern? To extend them further use the post-it notes 0-6 and get them to find the difference between the two numbers on each domino.



Differences and Doubles

Two players take it in turns to roll two dice.

The player rolling the dice has to make a number sentence about the difference between the two numbers. For example, if they roll a 3 and a 5, they would say “5 minus 3 equals 2”.

If they can make a number sentence correctly, they score the number of points that matches the difference, which, in this example, is 2 points.

Obviously, if they roll a double, they state the number sentence, but score no points because, there is no difference between the two numbers.

What is the highest number of points they can score in one roll? Why is it harder to score 5 points? What is the most common number of points to be scored in one roll?

The winner is the first to reach 40 points.



Addition Grid

This is a two player game, requiring two dice, paper and coloured pencils.

To begin, draw a grid like the one below on a piece of paper (the number of rows & columns can vary—minimum of four) with the numbers ranging from 2-12.

7	5	6	8	11	5	6	8	7
3	10	2	5	4	10	7	10	8
6	9	3	9	7	8	5	12	9
7	4	8	6	4	11	9	7	6

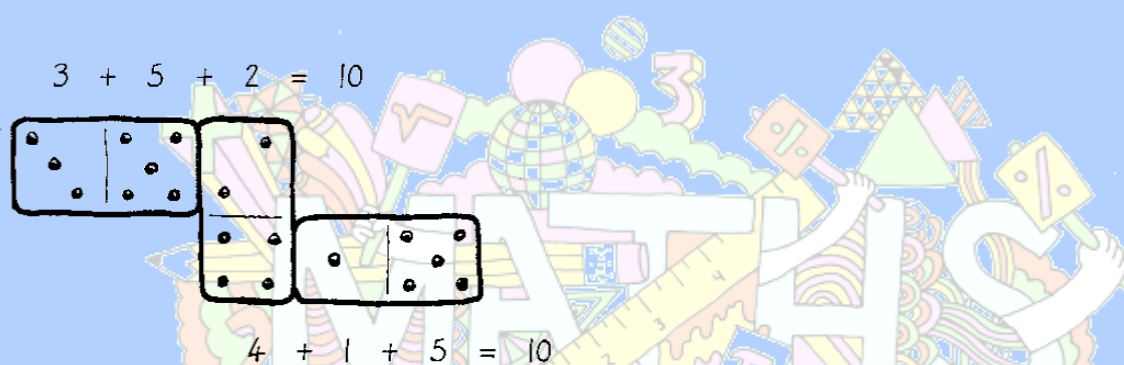
The players take it in turns to roll the two dice, adding the two numbers shown on the top. Using their coloured pencil, they circle/cross out that number on the grid.

The winner is the first to cross out four numbers in a line, in any direction.

To vary it, why not use change the grid to have numbers from 0-5 and play using the difference between the two numbers on the dice.

Zigzags

Using a full set of standard dominoes, create a zigzag pattern, as illustrated below.



The objective is to have the numbers in each row add up to 10.

How long can you make the line? How many different ways can you do it?

Why not vary the total required to make 8, 9, 11 or 12?

Patient Elevens

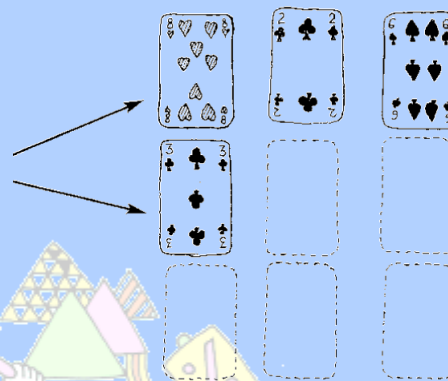
Remove the jokers from a pack of standard playing cards and shuffle the remaining cards well.

Deal the first nine cards so that they are face up in a 3 x 3 grid.

If any two cards add up to 11, turn them face down and deal two new cards from the remaining pack, face up on top of them.

If there are three picture cards of the same value (e.g. 3 x kings), they can be turned face down with three new cards dealt face up on top of them.

The aim is to turn over all of the cards in the pack, using only the nine spaces provided. Can you do it? Remember, it is called **Patient Elevens**.



Total Ten

Remove all of the picture cards from a standard pack of playing cards.

Shuffle the 40 number cards and deal them out equally between the players.

Each player sorts their cards into totals of ten, with any number of cards they choose. E.g. a ten, a two and an eight, a one, a five and a four or a two, a three, a two and another three.

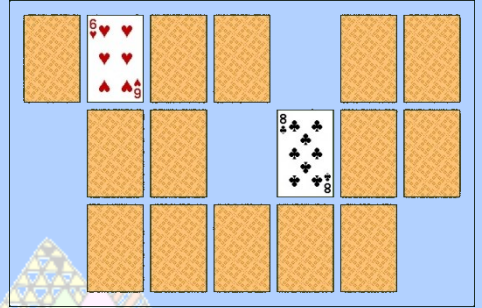
The winner is the first to use all of their cards to make collections of ten.

Who can make the fewest/most number of tens with their cards?



Memory Bonds

Remove all picture cards and the 10's from a standard pack of playing cards. You can then choose to play with two suits (Ace-9), three suits or four suits.



Shuffle three cards and lay them out, face down in a grid formation.

Players take it in turns to turn over two cards. If they add up to 10, they keep the two cards and go again. If they do not add up to 10, they turn them face down in the same spots and the next player has a turn.

Keep an eye on where each card is, you might need it on your next turn!

The winner is the player with the most pairs of 10 at the end.

The more suits you use, the more challenging it is for your memory.

Why not play memory bonds to 9 (remove the 9 cards) or 11 (you'll need to add the 10 cards)?

Coin Counter

It is never too soon to introduce children to the world of currency, and they usually need no encouragement. When learning to count money, young children often assume that three coins must equal 3 cents or 3 dollars, so be careful that you are clear when you are playing this game.



Put a pile of coins on the table and ask your child to guess how much money there is, then to work it out. Obviously, the amount of coins you use will depend on your own child but it is best to start with a small amount and build up.

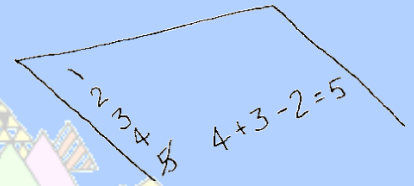
Also, put a pile of coins on the table and ask your child to pick up exactly 25c (or 80c, \$1.25 etc.). Talk to them about different ways to make the chosen total.

Number Sentences

You will need three dice for this game.



Each player writes down the numbers 1—10 on a piece of paper.



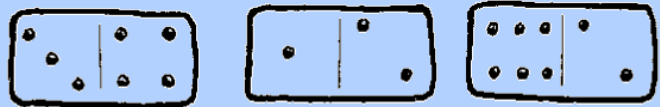
Players take it in turns to throw the dice and use addition and/or subtraction to make one of the numbers from 1—10.

That player will now cross the number they have made off of their list, writing the number sentence next to it. The winner is the first player to cross off all of their numbers.

To challenge them further, can they make the numbers 1—10 in order? Can they then work back down from 10—1?

Ordering Numbers

You will need a set of standard dominoes for this activity.



34 43 12 21 62 26

Choose three dominoes at random.

For each of these dominoes, create two 2-digit numbers (e.g. a domino with a two and a three on it would be 23 and 32).

Write the six numbers you have in order from smallest to highest.

Can they write them in reverse order? Do they know what ascending and descending mean?

Use four or five dominoes.