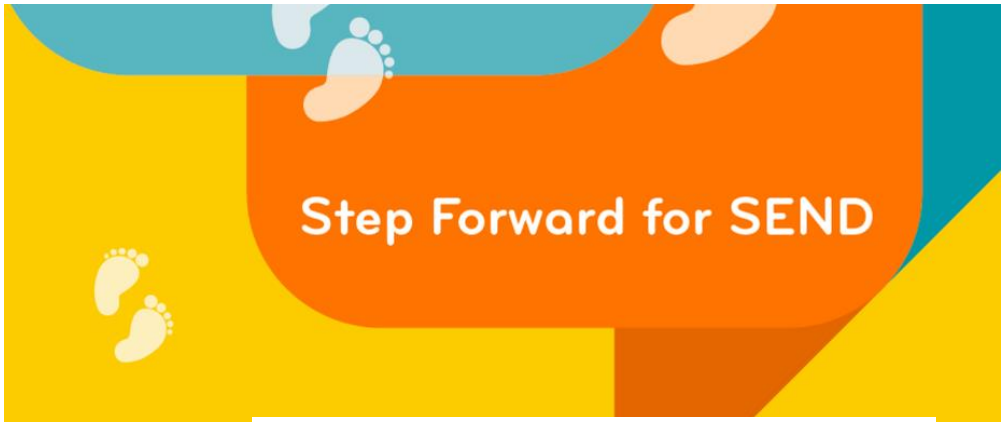


Lancashire SEND

Specialist Teacher Resources

Home learning ideas for pupils with Special Educational Needs

The Coronavirus pandemic means that **parents and carers** of young people with **SEND** are facing uncertainty. We know schools are on the front line and are playing a **hugely important role** in keeping communities going in these challenging times. With lots of parents having to teach SEND pupils at home we thought we would send you a weekly themed resources that you can share with your teachers and parents.

Home Learning

In the coming weeks we hope to cover a range of topics that would be suitable for children with a range of learning needs. The topics will vary but will cover broad areas of cognition and learning, communication and interaction, social and emotional wellbeing and sensory and physical needs. We welcome any feedback from parents and carers.

Getting Started

1. Have a daily plan – include your child's interests and motivators
2. Flexibility – be prepared to change the plan
3. Chunk activities with a practical, movement break between.
4. Developing life skills is also learning.
5. Incorporate a range of tools to engage learning e.g. books, apps, garden, household objects.
6. Remember every young child can learn, just not on the same day or in the same way.

Numeracy

Trying to convince students who struggle with maths that it is possible to succeed can be an uphill battle. So, to help support students and build their confidence, we have gathered together a range of accessible and adaptable lessons, activities and templates to use in maths.

Top tips for parents and families:

Be positive about maths. Don't say things like "I can't do maths" or "I hated maths at school"; your child might start to think like that themselves.
Point out the maths in everyday life. Include your child in activities involving maths such as using money, cooking and travelling.
Praise your child for effort rather than talent - this shows them that by working hard they can always improve.
If you struggle with maths yourself - try free online tools such as National Numeracy Challenge to improve your maths level.

General tips and ideas

- **Cooking**. Measure ingredients and set the timer together.
- **Practise counting** up to twenty and then back to one.
- **Find the same amount** of different items to help your child understand what numbers mean. For example, find 3 spoons, 3 hats, or 3 socks.
- **Talk about the shape and size** of objects, e.g. big car, round ball, rectangular box. Ask questions like "pass me the biggest box", or "which is the smallest shoe?".
- **Play with items** like shells, bottle tops, beads, Lego and compare them. Try making patterns with them together.
- **Put items in order**. You could do this by weight, height or size. Ask your child to help you organise items around the house.
- **Make patterns with objects**, colouring pencils, paint or Play-Doh.
- **Build structures** with Duplo, Lego or boxes.
- Solve problems. Work out "how many altogether" and "how many more". As your child questions such as "We have 3 red apples and 2 green apples, so how many apples do we have altogether?"

Older children

- **Talk about time.** For example, get them to work out what time you need to leave the house to get to school on time.
- **Cooking.** Measure ingredients and set the timer together. Get them to work out how much more food will you need if extra people are coming for dinner.
- **Talk about the shape and size of objects.** Look online for interesting facts, like tallest and shortest people, or biggest and smallest buildings etc.
- **When you are sharing food** like pizza or cake, ask your child to help you share it equally between the number of people eating.
- **Solve maths problems at home.** For example, ask them how many apples to buy at the shop and why, or how long will it take you to get to Gran's house if you go to the library on the way.
- **Collect information** and create a tally chart, for example to find out the family's favourite animal or fruit etc.
- **Make patterns** with objects, colouring pencils, paint or Play-Doh, and build structures with Lego or boxes

Activity 1. Telling the time

https://www.123homeschool4me.com/26-telling-time-games-and-activities_43/

Activity 2.

Noughts and crosses on the glass – great to play whilst visiting grandparents in isolation to promote social skills and interaction.

Activity 3. Multisensory Maths

The use of sight, touch, hearing, and movement can make it easier to understand what numbers and symbols represent. The following ideas and more can be found at https://www.understood.org/

Visualizing With Beads or Cereal

Using beads, dried beans, or cereal as manipulatives is a great way to have children represent math operations. For instance, your child might solve an addition sentence by adding two sets of beads together. Or they might find out how much is left after subtracting some beads. You can also group together different amounts of the items for multiplication and division.

By moving these items around and seeing how the quantities change, children have a concrete way of understanding how these math operations work. Manipulatives can also help your child develop number sense and understand amounts.

Building With Coloured Cubes and Tiles

Kids can use cubes or tiles to build shapes. This gives them a concrete idea of the measurement and properties of the figures they create.

Tiles and cubes also work when teaching number patterns and operations. For instance, you can stack cubes in groups of 2, 4, 6, and 8. Then ask you child to build the next stacks in the pattern, adding two cubes each time (10, 12, etc.).

Drawing Maths Problems

Drawing maths problems is a good next step after working with hands-on materials like beads or coloured tiles. It's a way for children to show their thinking—and it takes them one step closer to writing number sentences with numerals and symbols.

For instance, ask kids to solve the multiplication problem 4 × 6 by drawing 6 groups of 4 stars.

Movement and Maths

– Use a skipping rope, swing or trampoline to practise skip counting.

- The Number Line - Use chalk to make a big number line. Addition and subtraction can be done by walking or jumping on the number line.

Activity 4. Games with Dice

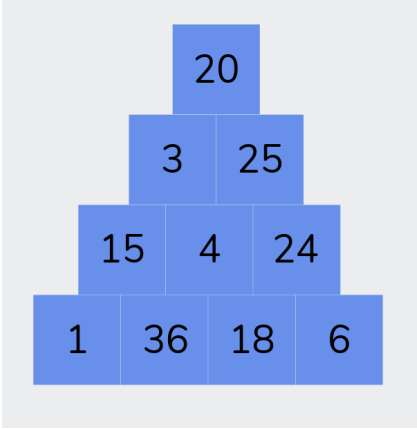
Triangle Tower

This game is a great way to test your child's times tables skills, and it only takes two minutes to set up!

What you need to play:

- Two dice
- A sheet of paper
- Counter or coins

How to play:
Step 1: Draw out a triangle made from squares, with four on the bottom up to one at the top.
Step 2: Each player chooses 10 numbers from: 1, 2, 3, 4, 5, 6, 8, 9, 10, 12, 15, 16, 18, 20, 24, 25, 30, 36. This is all of the possible options you can get when multiplying the numbers between 1 and 6 together.
Step 3: Write one number in each of the ten triangles from the product table results above.
Step 4: The first player then rolls 2 dice and multiplies the two numbers together. If they have the product of the two numbers written on their tower, they can then cover it with a counter.
Step 5: The winner is the first player to cover all their numbers in the tower.

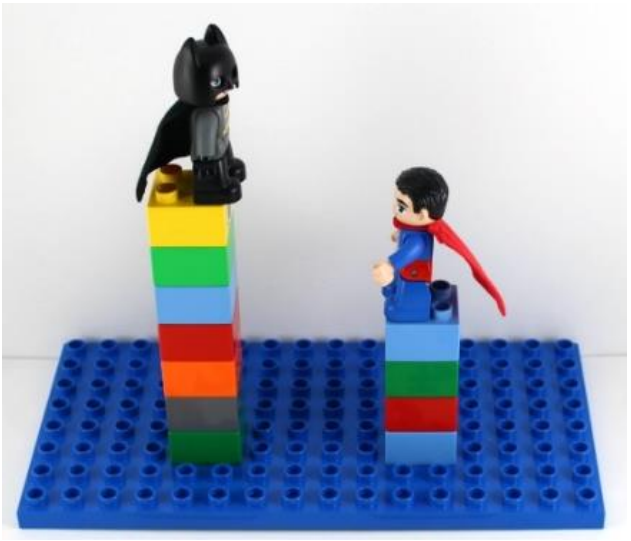


First to 10 (or 20)

This game is great for simple adding (and subtracting). It also involves a competitive element.

What you need to play:

- Dice (you can play with one or two)
- A Lego® baseboard
- A minifigure each
- Lego® bricks



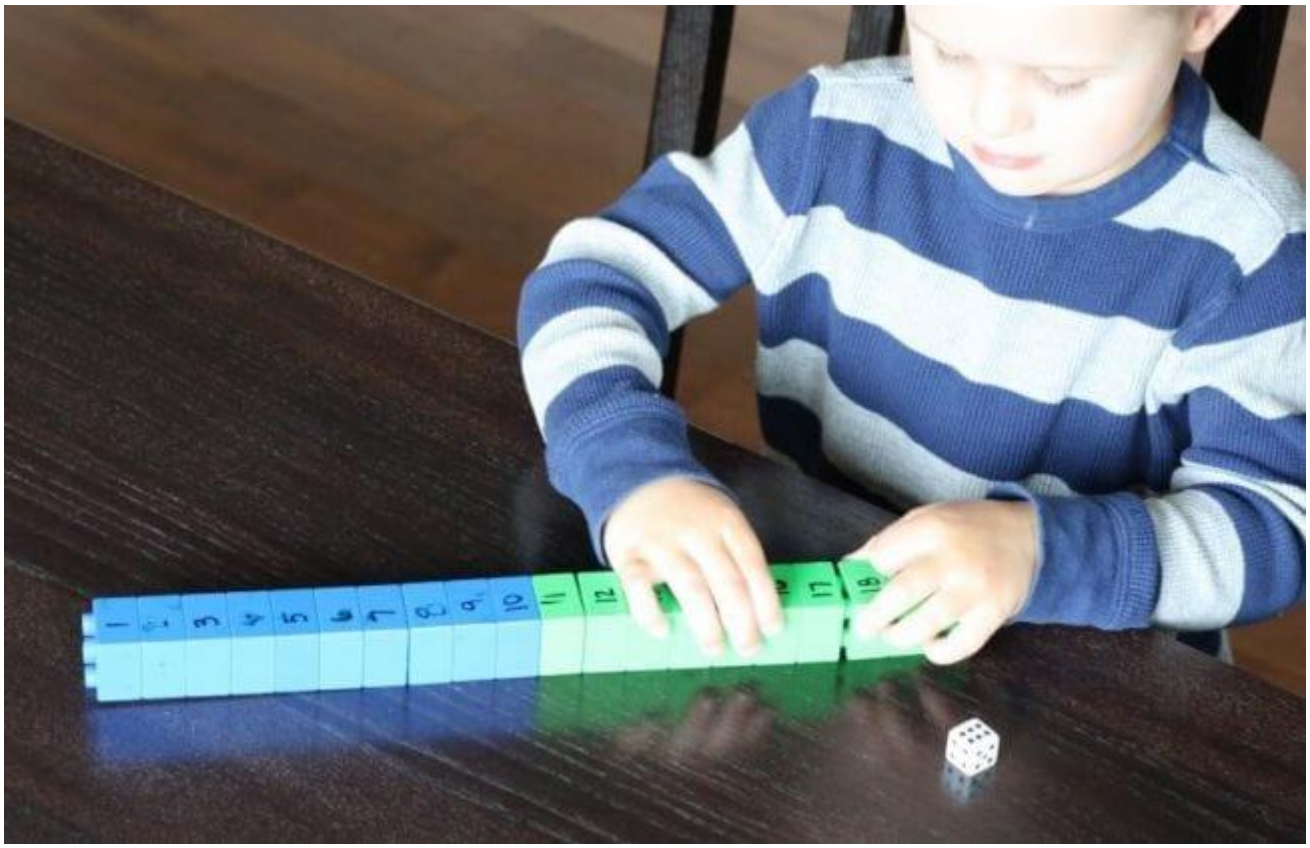
How to play:

1. Choose your minifigure and place it on the baseboard.
2. Decide what will be the winning score (e.g. 10).
3. Take turns to throw the dice. Place that number of bricks under your minifigure.
4. First one to reach the score wins the battle.

You can always play in reverse. Start with 20 and take-away bricks. First to the ground (the base plate) wins.

Activity 5. Lego and Maths

Race to 20 to practice counting on.

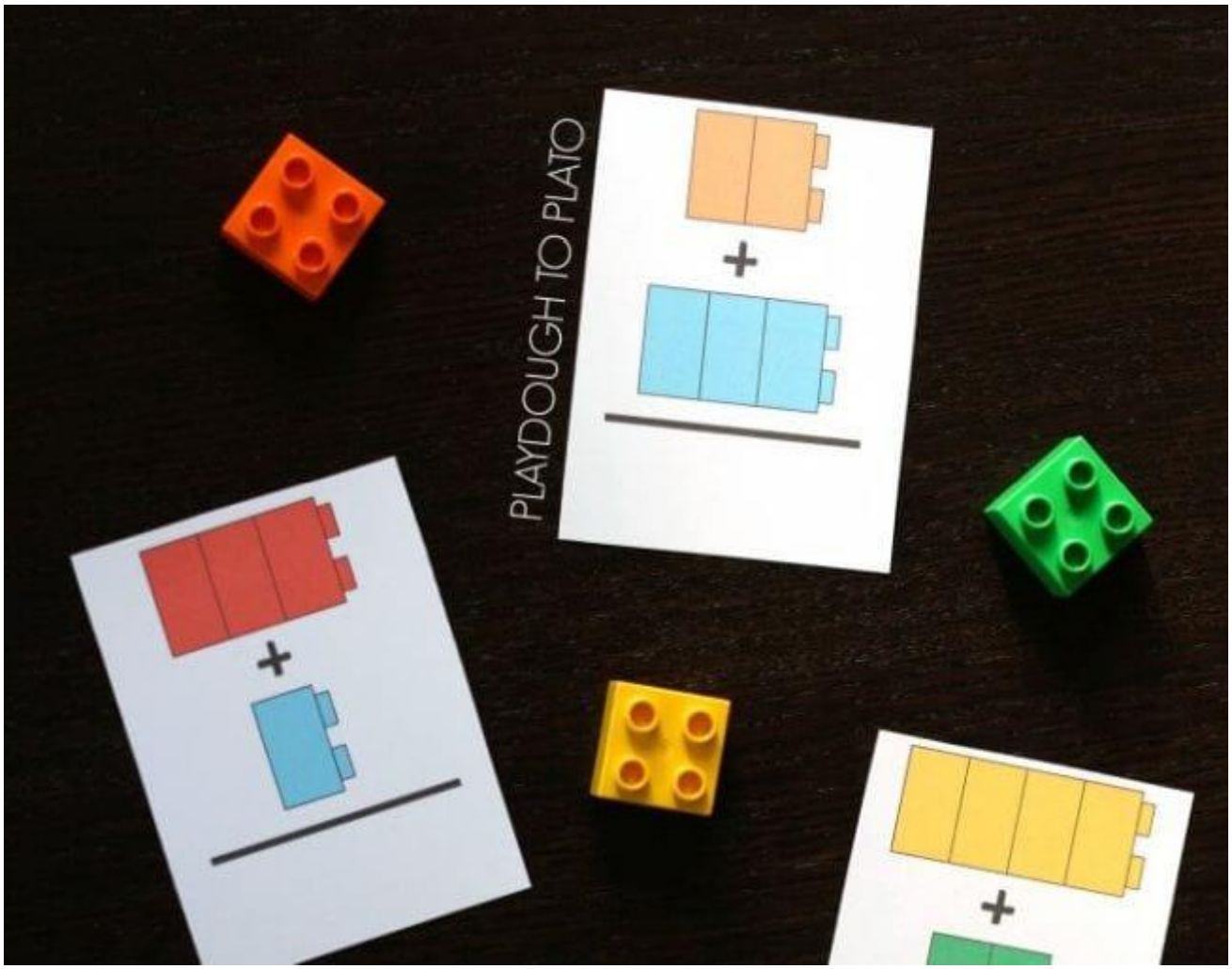


This activity is great for 2+ players. Write the numbers one to twenty (one number each) on the flat side of 20 LEGO (or DUPLO) bricks with wet-erase markers. Kids start with the brick labeled "1" and roll a die. They add the indicated number of bricks to their stack in the correct order, racing to see who can be the first to get to 20. You can expand this game to include as many bricks as you have available!

Skip count with LEGO maths

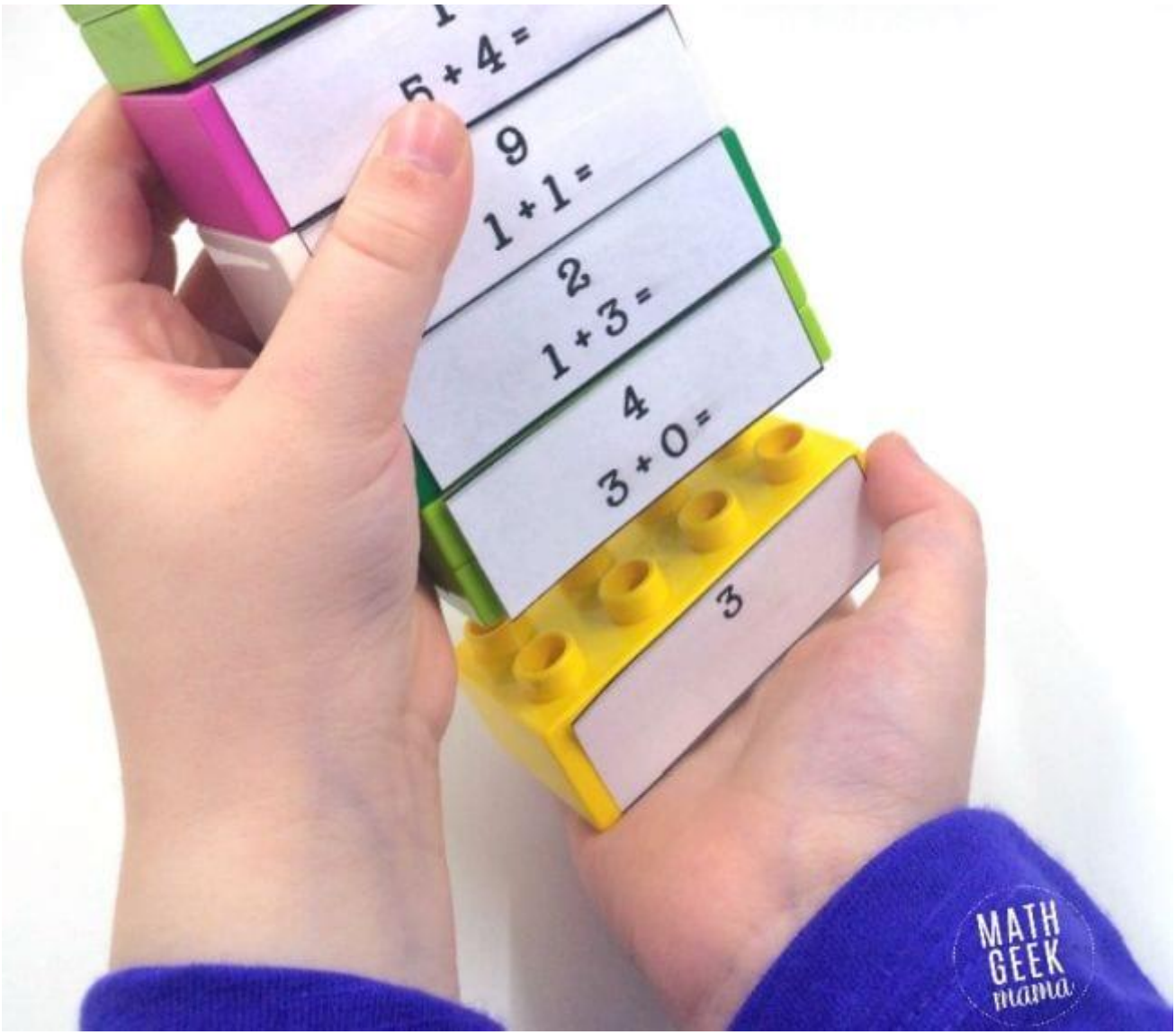
Use the same stack-and-count activity as above, but change the numbers to work on skip counting by 2, 5, 10, or whatever you're currently working to master.

Use LEGO math to practice addition facts.



These are so much more fun than traditional flashcards! Grab your free printable set at the link and use LEGO math to practice basic addition facts.

Put together addition fact puzzles.



Think of this as a version of dominoes. Tape a math fact card to each brick. Kids look at the top number, then look to find the brick with the equation that has that sum as the answer. They continue on, stacking bricks as they go.


PLACE VALUE BRICK TOWERS
Number: 47
TENS
ONES
FrugalFun4Boys.com

Activity 6. Card games

Try for a total of 10.

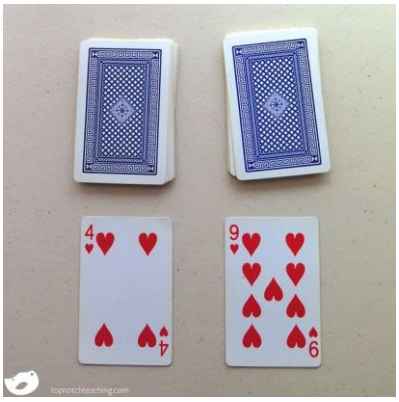
Play this maths card game alone or as a team. Lay out 20 cards on the table (leave out face cards or change them to equal 0, while aces equal 1).

Take turns to remove sets of cards that add up to 10, ultimately trying to remove all the cards from the table. It's harder than you think!

Do some basic fast facts practice.

Give your flash cards a rest and practice facts with maths card games instead.

Simply lay down two cards from the deck (remove the face cards first) and add, subtract, or multiply them. Kids can work on this alone, or you can make it a contest to see who can call out the correct answer first.



http://www.suffolkmaths.co.uk/pages/Problem%20solving/Playing%20Cards/1%20Primary%20Numeracy%20Activities%201.pdf

21 (2-4 players)

This game is a simplified version played in casinos, with no gambling involved. Object: be the closest to 21 without going over! Each player is dealt two cards to start. Each player has the

option to take another card to attempt to improve their hand to the number 21. If they go over or "bust" they get 0 points. If they are the closest to 21 without going over, they get 1 point. If there is a tie, all the players that are tied get 1 point. If they get 21 on the first 2 cards dealt, they get 2 points. First player to 10 points wins.

Make Ten Solitaire(1-2 players)

This game is traditionally played as solitaire, but can easily be modified for two players. It allows younger kids to be able to practice their math facts to 10.

Deal the cards into three rows of five face up, the rest are in a pile face down to the side. If you can add two cards that equal the sum of 10, you collect the cards. New cards are dealt into the holes that were left from the cards that were picked up. Face cards (K,Q, J, 10) can only be picked up if you have a matching pair. If you are playing the solitaire version, you win if you can pick up all the cards in the entire deck without getting stuck! If you are playing with two players, and there are no more moves to be made, the player with the most cards at that time is the winner.

Activity 7.Dice, dominoes and cards – there's maths in that game!

The following set of six games involve little equipment and, as well as being fun and revealing the odd competitive streak here and there, they are stocked full of maths.

When using dice and dominoes, children will become familiar with dot patterns and will eventually be able to recognise them on sight. The children may notice (or be guided to notice) that the patterns are linked.

For example, on the dice,

This is '1'

3 is '2 and 1 more'

5 is '4 and 1 more'

Recognising a quantity without counting is called 'subitising' and this is one of the skills that underpins addition and subtraction going forward.

The domino tiles have the same layout of dots (pips) for each number as the dice but they have a potential two numbers on one tile (one on each half). For some games, children may need to take into account one of these numbers on each turn and for some, they may need to combine them. This further supports with understanding parts and wholes.

Playing cards offer something different and potentially less familiar in terms of patterns. When playing games, challenge children to see 'numbers within numbers'. For example, in the Winner Takes the Difference game later in the blog, the example uses the following cards with counters to match:

Can children identify 'the five' and 'the three' on the eight card? Is there only one way?

Dotzi

1 or more players, you will need:

- 6 dotty dice

Optional equipment:

- A container (if you wish to contain the dice!)
- A timer (for timed games)

How to play

- Player 1 rolls all 6 dice (or shakes the dice in the container for tidier play!) and keeps any dice that show the number 5.

- Player 2 rolls the remaining dice and keeps any dice that show the number 5.

- Continue taking it in turns to roll the remaining dice. If there are no dice that show the number 5, the next player rolls. When all of the dice have been taken, the player with the most dice wins!

For single players, keep any dice that show the number 5 on each roll. Either count how many rolls it takes or use a timer to see how long it takes. Then try to beat that number of rolls or time on your next go!

Changing it up!

Try one of the following…

- Change the target number for keeping dice, e.g. take all of the dice that show a number 6.
- Keep any matching pairs or seats, e.g.

Player 1: I have rolled two threes, a six, a five, a two and a four. I can keep the threes because there are two of them. They are a pair.

Player 2: I have rolled three sixes and a one. I can keep the sixes because there are three of them. They are a set.

- Keep any odd numbers.
- Keep any even numbers.
- Keep any numbers that add to total 7 (pairs or sets), eg.

Player 1: I can keep the three and the four because 3 more than 4 is 7.

Player 2: I can keep the five, the one and the one because the sum of 5, 1 and 1 is 7.

Note: Players can keep more than one pair or set from a throw, e.g.

I can keep the six and the one because 1 plus 6 is 7. I can also keep the two twos and the three because double 2 equals 4. 4 and 3 make 7 altogether.

- Change the target total, e.g. keep any numbers that add to total 10.
- Keep any consecutive numbers.
- Keep any dice that show a number that is less than 3.
- Keep any dice with a difference of 2, e.g. 1 and 3, 2 and 4, 3 and 5 or 4 and 6.
- Make the winner the player with the highest total number of dots won. e.g. in a round of 'keep the dice that show odd numbers':

Player 1 won four dice and Player 2 won two but Player 2 is the overall winner because 5 + 5 = 10 which is worth more than 1 + 3 + 1 + 1 = 6.

Note: Keep the dice the same way up as when they were won so that the total can be counted or draw a picture of the dice combinations won each time.

- Single players could keep rolling until the numbers 1 to 6 have been collected.

Questions to consider:

Can you explain why you are allowed to take the dice in a different way?

For example, in a game where the target total is 6,

I can take these two dice because…

-

- The sum of 2 and 4 is 6.
- 4 plus 2 equals 6.
- 6 is 4 more than 2.
- 4 and 2 total 6 altogether.
- If 2 and 4 are the parts, the whole equals 6.
- 4 add 2 is 6.

When using each rule to play, is it possible to get a draw?

What is the highest / lowest possible number of dots you could win when playing each rule?

Will all of the dice be used in each game? If not, why not?

Can you make up your own rule?

Make 10

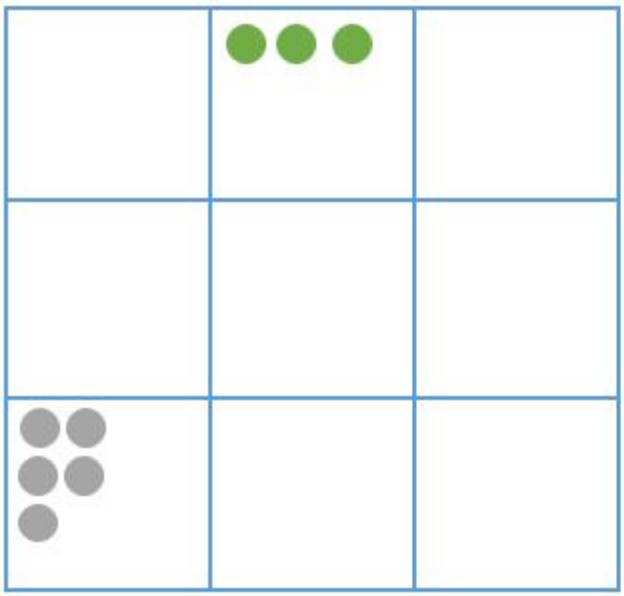
2 or more players

You will need:

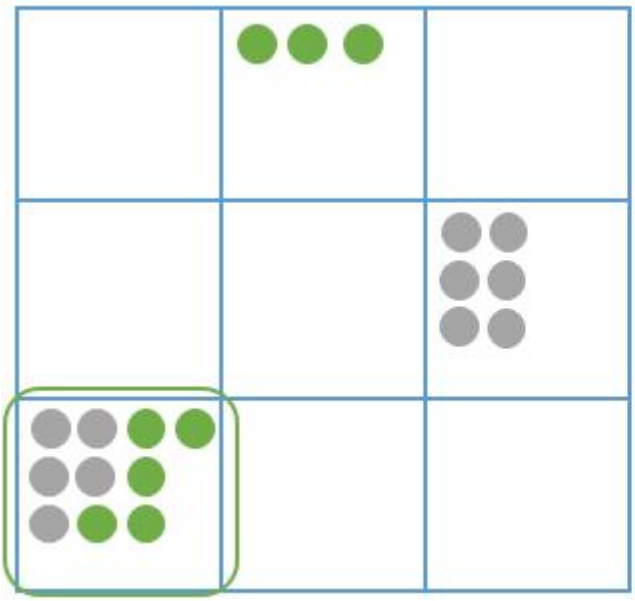
- A dotty dice
- A 3x3 grid drawn on a piece of paper
- A pen / pencil

How to play:

- Take it in turns to roll the dice and record the number of dots rolled in a square on the grid, e.g.



- On each turn, a player may choose to add to a square that already contains dots or to start a new square, e.g.



- The player that completes a square with exactly 10 dots wins that square. The player may initial that square or outline it in their colour pen, e.g. for Player 2 above.
- Squares are not allowed to contain more than 10 dots so if a player rolls a number that cannot fit in any squares, the next player takes their turn.

- When all of the squares have been won, the player with the most squares overall wins!

Changing it up!

- All squares must contain at least one dot before dots can be added to other dots.
- Allow players to split the dots on their dice between more than one square. Any square that's filled during the turn can be claimed.
- Change the game to 'Make 100%' where each dot is worth 10%. Explain what is in the square you add to each time, e.g. *There were 3 dots here so that's 30%. I added 5 dots so now it is 80% complete. 2 more dots are needed to make the final 20%.*

Questions to consider:

- In which boxes is it easier to see how many dots there are? Why is that?
- Which numbers are you more likely to be able to fit in a box? Why?
- Can there ever be a draw?
- How many different combinations of dots are there that make 10? How will you know if you have them all?
- Can a player with less dots overall still be the winner?

Twelve Pips

1 or more players

You will need:

- A set of dominoes

How to play:

- Place the dominoes face down, shuffle them and lay in rows to make a grid.
- Take it in turns to turn over two domino tiles.
- If the dots on both tiles total 12 altogether, keep the tiles. If not, turn them back over. Try to remember where they are!
- The player with the most dominoes at the end wins!

For single players, see how many pairs you can make before you turn over the 'double five' domino.

Changing it up!

- Allow players to turn over a third domino if the dots on the pair don't yet total 12. If the set of 3 total 12, the player takes them all.

- If the player before you doesn't make it to 12, you can choose to keep their tiles turned over and begin your turn from there.
- Players get a bonus point if they use a 'double domino'.
- If a player turns over double 3 and then doesn't find a tile to make 12, the other player gets two turns in a row.

Questions to consider:

- Is it possible to match all of the domino tiles in pairs to make 12 without having any left over?
- Is it easier to remember the location of certain dominoes? Why is that?

Make it a Multiple

2 or more players

You will need:

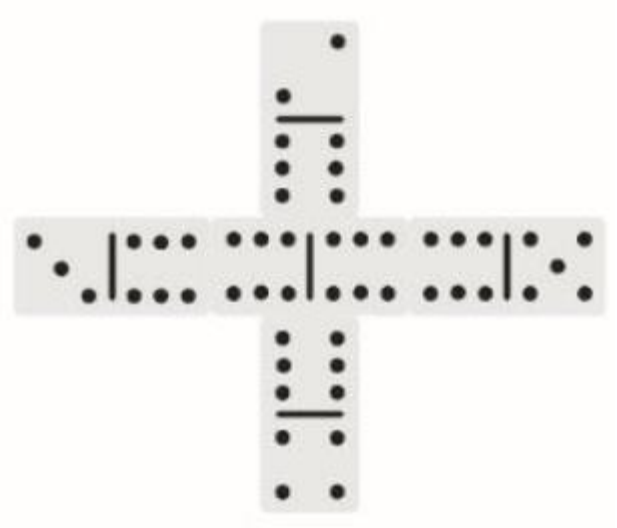
- A set of dominoes

Optional equipment:

- Domino racks

How to play:

- Place the dominoes face down and shuffle them.
- If there are 2 players, each player takes 7 tiles (6 tiles each for 3 players and 5 tiles each for 4 players).
- Any remaining tiles are left face down to be taken during the game.
- Player 1 lays down a domino to start the game. It doesn't have to be a double. However, the first double played is the only double that can be played off of all four sides (see below).
- Players in turn then lay tiles on the open ends of the domino layout. Domino ends must connect with a matching number of pips (dots on the domino), e.g. if the double six started the game:



- Any player who does not hold a tile in their hand with the correct number of pips must take a tile from the overturned dominoes.
- Players score when they play a tile on the layout and the pips on all the open ends add up to equal a multiple of 5.
  - 1 point is earned if the total is 5
  - 2 points are earned if the total is 10
  - 3 points are earned if the total is 15 etc
- Continue to play until one player gets rid of all of their tiles. That player is the winner!
- If play is blocked and no player can add a tile to the layout then the game is over and the player who earned the most points through scoring for making multiples of 5 wins!

Changing it up!

- Change the multiples that score points.
- Score points for totalling a specific amount on the ends of the lines, e.g. 12.

Questions to consider:

- If you don't start with a double (and therefore only have 2 'branches', how does this affect your chances of making a multiple of 5 on the ends?
- How many different ways can the multiples of 5 be made using domino tiles? Are there more ways to make 20 than there are to make 15? Can you prove it?

Winner Takes the Difference

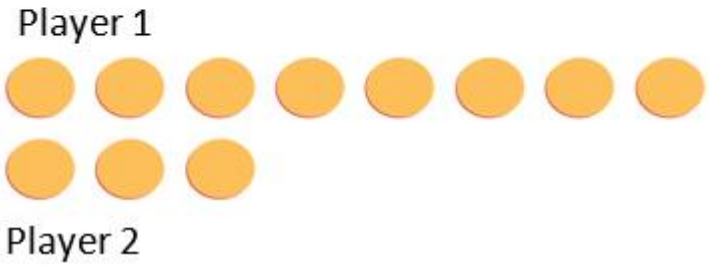
2 Players

You will need:

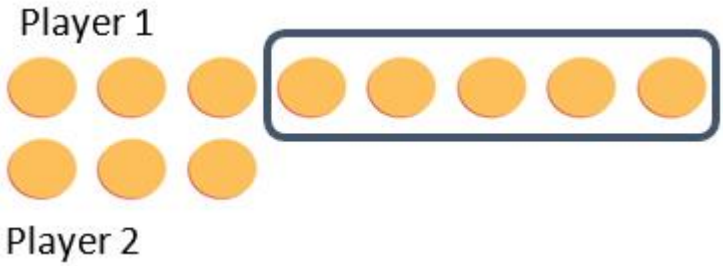
- A pack of playing cards with the picture cards and jokers removed
- A bowl of counters (or suitable alternative small objects for counting)

How to play:

- The card pack is placed face down as a deck.
- Players each take a card and take that number of counters.



- Identify who has the most and what the difference is



Player 1 has the most and the difference between 8 and 3 is 5.

- The player who picked the largest number keeps the difference between their counters and the other player's counters (5 in the example above) and returns the other counters to the bowl.
- The first player to 25 counters wins!

For single players, take two cards, make the lines of counters and play as above. Count how many turns it takes to make the total of 25. Have another go and see if you can do it in less turns.

Changing it up!

- Keep the picture cards in the pack and give them values, e.g. Jack = 11, Queen = 12 and King = 13.
- Each player starts on 50 points and adds their counters from there. The first player to reach 75 is the winner.
- Each player starts on 25 points and subtracts the difference each time. The first player to reach 0 is the winner.

Questions to consider:

- What is the smallest possible difference you could have?
- What is the largest possible difference you could have?
- What are the possible odd / even differences? Which numbers could they be between?

Risky

2 players

You will need:

- A pack of playing cards with the jokers removed
- Pen and paper

How to play:

- Shuffle the cards and place the deck face down.
- Cards 2 to 10 are worth their face value; Jacks = 9; Queens = 11; King or Ace = no score for that turn
- Player 1 turns over as many cards as they dare, adding to a running total as they go. If a King or Ace is turned, all cards must be returned to the bottom of the deck. If Player 1 stops before that happens, the total can be noted down, e.g. 3, 7, J (9), 1, 5, "stop" = 25 points
- Player 2 takes their turn. 6, 9, Q (11), 5, 7, 8, 2, J (9), K = put all cards back – 0 points
- Each time a player takes a turn, they start adding to their previous total. In this example, Player 1 would start from 25 and Player 2 from 0.

- If a player then turns over a King or an Ace, they return only to the last recorded total rather than to 0 (unless no totals have yet been recorded – then it's back to 0), e.g. for Player 1: 5, 1, 2, Ace = put these cards back – 0 points added – stay at 25
- The first to reach 100 wins!

For single players, can you reach 100 in less than 5 turns? Can you make it in 1 turn without turning over an Ace or a King? Is it possible?

Changing it up!

- Lower the target total for a game with more than 2 players.
- Start from a different total, e.g. 300. First to 400 wins!
- Start from 100 and subtract the value of each card. First to 0 wins!
- Change the value of the Jack and Queen.
- If you stop and your score is a multiple of 8 during the game, your score is doubled.
- Prime numbers can be doubled before adding to the running total.

Questions to consider:

- What is the highest possible total you could reach if all of the Kings and Aces were at the bottom of the pack?
- Does it become more or less risky to carry on turning over cards the further into the game you get? Why?

Playing mathematical dominoes:

https://www.st-georges.enfield.sch.uk/attachments/download.asp?file=55&type=pdf

https://nzmaths.co.nz/playing-mathematical-dominoes

Other useful websites for home learning and numeracy can be found below.

http://www.edu.gov.on.ca/eng/literacynumeracy/parentGuideNumEn.pdf

https://www.bbc.co.uk/cbeebies/grownups/help-your-child-with-maths

Activities from Twinkle

Twinkle has a range of anxiety activities for numeracy and SEN. Please click on the link below:

https://www.twinkl.co.uk/search and search **'SEN Maths activities'**