

Blessed Sacrament
Catholic Primary School
Domino Games



Introduction

Double six dominoes have 28 pieces. Each domino piece is divided into two squares, called *faces*. Each face has a value determined by a number of spots, called *pips*. Each domino has between 0 to 6 pips on each face.

Seven of the pieces are *doubles* and have an equal number of pips on both faces.

The remaining 21 pieces are called *singles* and have a different number of pips on their faces.

A domino face with no pips is called a *blank* and has a zero value. The double-six piece is the domino with the greatest value. The double-blank has the least value. The values 0 to 6 are represented in each domino suit. There are seven suits, each with seven dominoes.

Except for doubles each domino is a member of two different suits. Have fun playing them.

The Maths Team.

P.S Here is a riddle for your children...

'One of my faces has 5 pips. My other face has 4 Pips. Who am I?

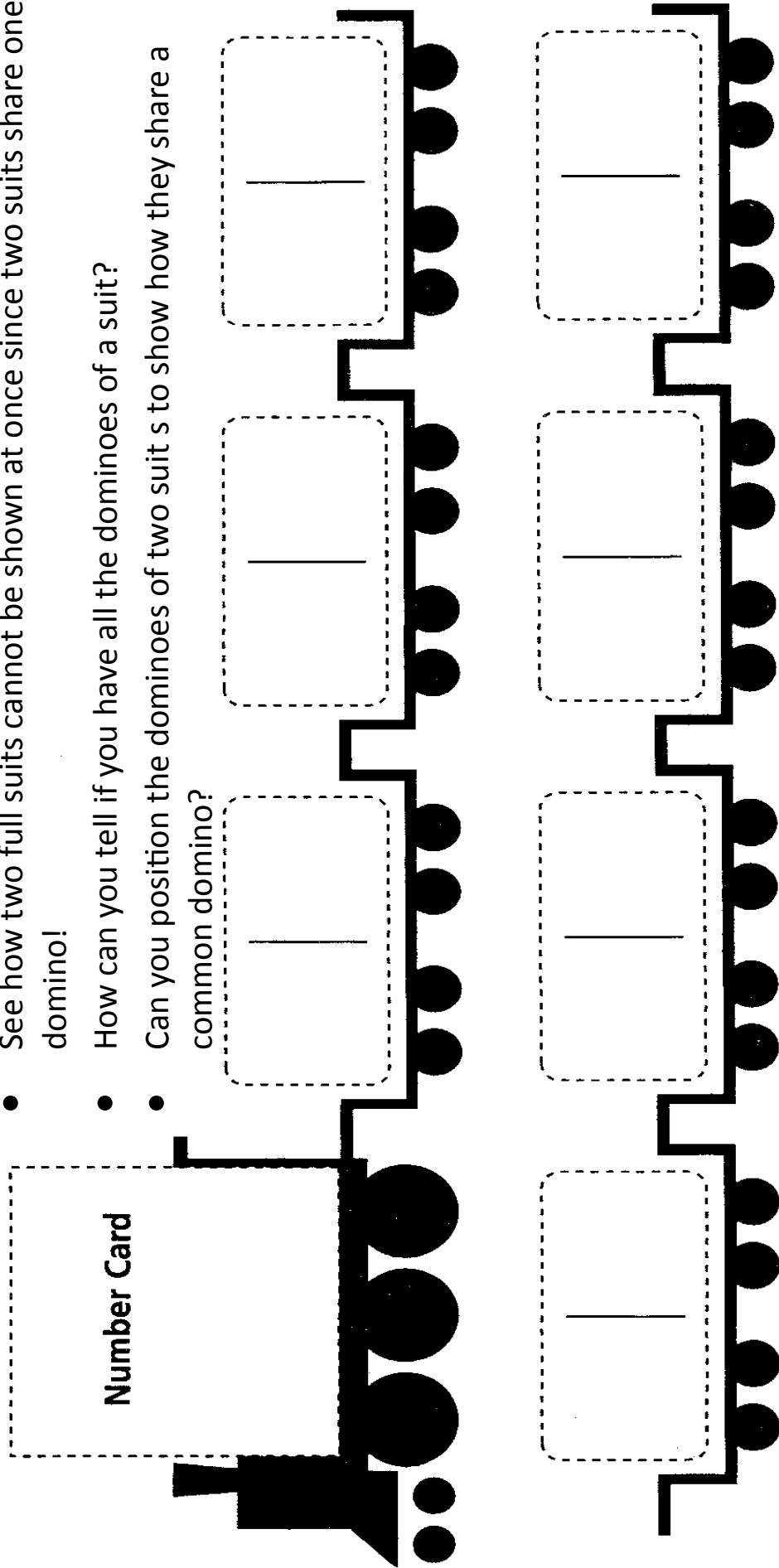
Nursery

Select a number card for the engine. This names the domino suit. For example if the number card "3" is picked the number train should be completed with all the dominoes of the "3 suit". Take turns to load the train by finding a complete suit of dominoes, from 0 to 6.

See how each domino has one face that identifies the suit and another face with the numbers 0 through to 6.

- See how two full suits cannot be shown at once since two suits share one domino!
- How can you tell if you have all the dominoes of a suit?
- Can you position the dominoes of two suits to show how they share a common domino?

Get on Board



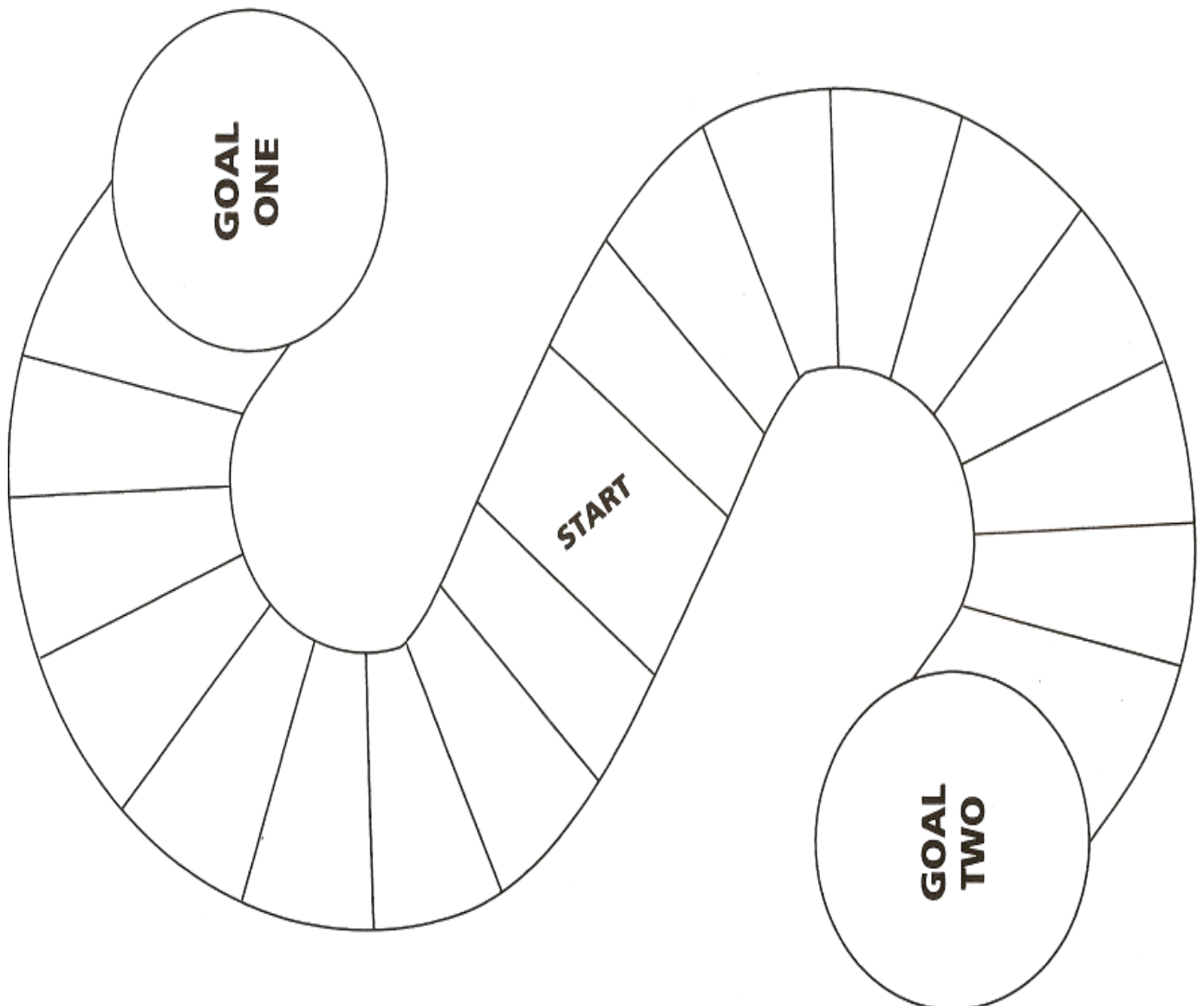
Foundation Stage (Nursery & Reception)

Task—subtract the lesser number pips on one domino face from the greater number of pips of the other.

Place the counters at the start. One player selects a domino, determines which face has greater value and subtracts the lesser face value from it. After finding the difference between the faces move the same number of spaces towards Goal One. The other player moves towards Goal Two. When a double is picked the difference is zero so the counter isn't moved.

Key Questions

- Which dominoes might you pick that would keep you from moving?
- Which dominoes are best to pick? Why?








Play against 'Math Marvel'

Put a set of dominoes in the bag. Pick one out and write the sum of its faces. If the sum equals 4, 5, 6, 7, or 8 then math Marvel wins. If it is any other number, you win.

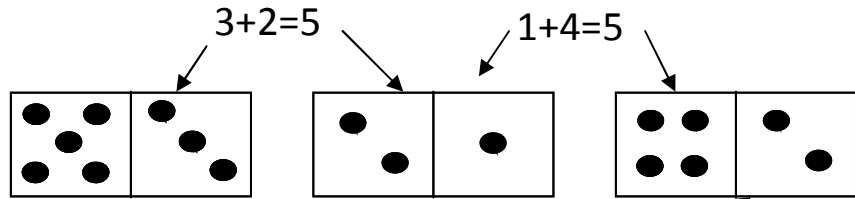
- Try to predict what the outcome of some of the picks might be.
- Try to pick some dominoes that would win for Math Marvel.
- Try to pick some dominoes that would win for yourselves.

Discussion

- Talk about the results and whether the game is fair.
- Play additional games and chart results.
- Sort out the dominoes into those with which Math Marvel wins and those with which you win. (Math Marvel can win with 16 dominoes you can win with 12).
- Could we change the rules to make the game fair?

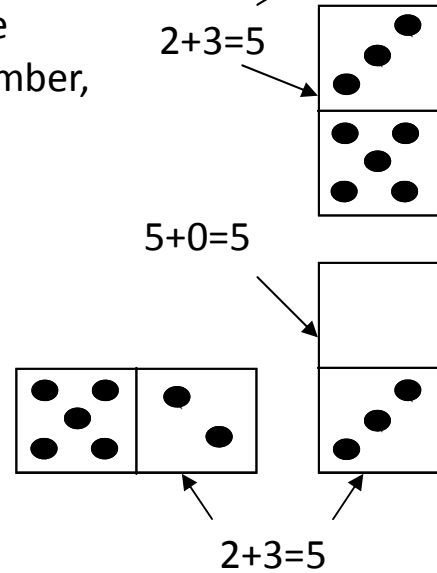
PICK	DOMINO	SUM	CIRCLE WINNER	
1 ST			Math Marvel	You
2 ND			Math Marvel	You
3 RD			Math Marvel	You
4 TH			Math Marvel	You
5 TH			Math Marvel	You

Year 1 & 2



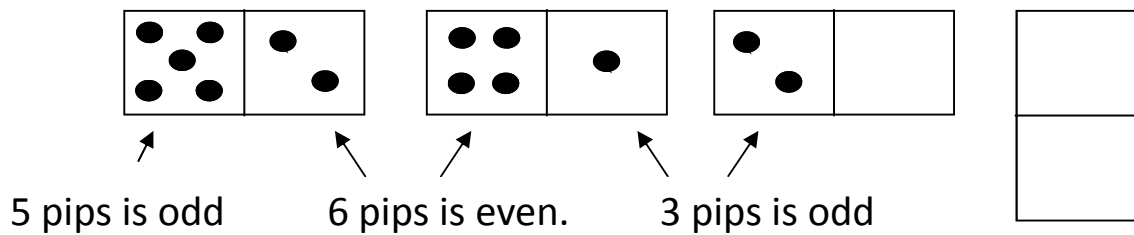
This activity will help your child to see all the different ways of making 5. Use another number, for example number 7, if you have time!

- Can you see a pattern in these dominoes?
- Can you arrange your dominoes to continue this pattern?
- Can you use all of your dominoes?

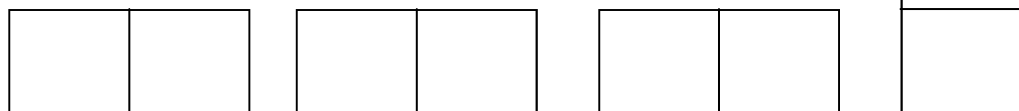


Domino - odds and evens

Take turns to make an odds and even domino pathway.



- Can you use all of your dominoes?
- Draw the dominoes that you have arranged to show your pattern?
- Are there any dominoes that you could not use?



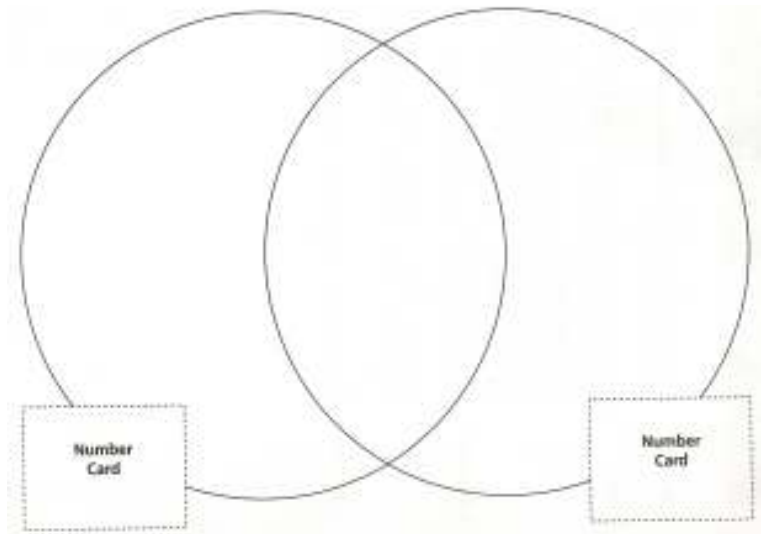
I'm All Set

Task—Sort dominoes by suits to form a Venn Diagram

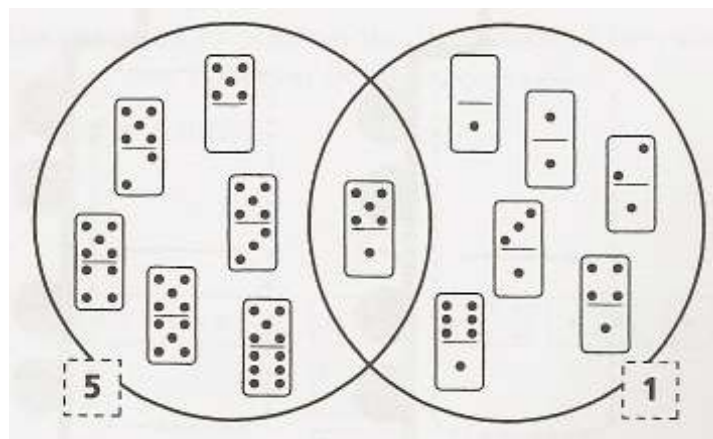
Draw two large, over-lapping circles with a number card box on each side .

This is your Venn diagram.

Use one set of dominoes and a set of 0-6 number cards. Each person draws a number card and places it on the number card *box* on each side of the Venn diagram. These two cards denote the two suits to be used.



Sort out all the dominoes for the two suits. The dominoes for one suit should be placed in circle on the left and the dominoes of the other suit should be placed in the circle on the right. The domino common to both suits should be placed in the overlapping section, or intersection of the circles (see sample solution below).



- Why does one domino belong in the intersection of the circles?
- How can you tell which domino is shared by both suits?
- Repeat for another two suits.

Double Circle Sets

Requires—Set Cards and a Double Circle Set Mat (see previous page)

Choose two cards from the card sets below and place one in each circle. Each pick 6 dominoes. Take turns placing each domino in either circle or into the intersection of the circles, according to the descriptions on the set cards. After each domino is played another is picked from the pile, until none are left.

A picked domino that doesn't belong in either circle is placed outside the playing area.

- Stress that the domino must meet the description of both set cards to be placed in the intersection of both circles.
- Point out that sometimes no dominoes belong inside the intersection.
- Children could write out their own set descriptions.

Key Questions

- How did you decide where to place your domino?
- What would the game mat look like if it was played with the set cards “Doubles” and “Has an even-number sum”?

Has at least one face blank	Has an even-number sum	Faces have a difference of 2	Has 4 pips on at least one face
Doubles	Has a sum of 7	Has an odd-number sum	Has 6 pips on at least one face