

Making

Maths

Fun

SPACE involves

- reading and drawing maps
- interpreting and drawing graphs
- constructing geometrical shapes
- reading and drawing plans
- constructing models from plans.

MEASUREMENT involves

- understanding and using metric measures
- telling the time
- estimating size, distance and temperature
- using informal measures such as a pinch and a hand span.

NUMBER involves

- understanding numbers and counting
- memorising basic facts (addition, subtraction, multiplication and division)
- estimating and checking estimations
- calculating mentally, using pen and paper and or calculators.

All three sections involve mathematical problems and some use of calculators and computers.

We know that children:

- learn mathematics at different rates and in different ways
- need to handle objects to develop their mathematical competence
- learn about mathematics through using language
- can learn to use calculators and computers in a variety of ways
- learn best through practical activities which relate to their everyday experiences.

Tables

The learning of tables is essential, as is the learning of mathematical processes. Children will learn not only multiplication tables but also addition, subtraction and division tables.

It is important for children to know the language and meaning behind a tables question such as '8 times 7?' They will begin by using counters and blocks because these help their understanding. It is when children have these understandings that they should be given practice in order to memorise tables.

'Tables' are not the only basic mathematics primary children need to learn.

They should be:

- confident and 'at home' with numbers
- able to estimate quickly
- able to read maps and plans
- able to measure and estimate the size and quantities of common objects
- able to tell the time
- able to understand graphs
- able to use computers and calculators.

Q. HOW CAN I HELP?

- A. You can help your child by making maths fun, interesting and easy to understand. As parents we are our children's first teachers. We continue to teach our children throughout their years of schooling. Remember to:
- **TALK** positively to your child about maths and **LISTEN** to his or her discoveries. Don't say, "I was never good at maths" or "Girls are not good at maths".
 - **SHOW** how we use things like maths in everyday things like shopping, cooking and getting to and from work. Involve your child in some of these activities.
 - **ENCOURAGE** your child to look at the world in mathematical ways, e.g. patterns made by floor tiles, natural patterns in trees, pine cones and flowers.
 - **PLAY** games that involve your child in counting, addition, estimation and logic, e.g. cards, draughts, chess and other board games and outdoor sports.
 - **ALLOW** your child to try to solve problems in his or her own way, e.g. using different things like counters, pen and paper or calculator.
 - **ENCOURAGE** your child to approach mathematics with confidence. If you lack confidence in mathematics talk to your child's teacher or a friend about your concerns.
 - **USE** the activities in the remainder of this book to show your child that mathematics can be fun.

Maths is Everywhere

“You are so good at math’s!” We all work better and achieve better results when we feel confident. Example: Tammy works out the pattern of the tiles in the bathroom. Praise her for this.

Maths is everywhere. Try these situations to “talk” maths.

- Going shopping
- In the garden
- Playing and learning
- In the car
- Sport health and exercise

Fun Maths for Learning Tables and Combinations

- Table memory
- Speed races
- Magic dice
- Combination 15
- Goodies and baddies
- Tapes
- Posters
- Table rhythm patterns
- Snakes and ladders
- Monopoly



LOOKING FOR SOMETHING TO DO?

On some days, such as on rainy Sundays, you feel like doing something different together ... something challenging and fun.

Why not try some activities that allow your child to gain further understanding of mathematical concepts?

Remember: You can make these activities easier or more difficult, appropriate to the needs of your child.

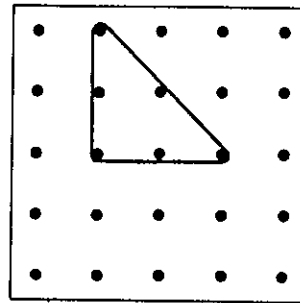
Make a Geoboard

Geoboards are a fun way to learn about plane shapes, symmetry, area, perimeter and many other mathematical concepts. They can be used by children of all ages.

Using a geoboard could mean your child can make a shape he or she cannot draw.

You will need:

a wooden board (large enough to nail 5 rows of 5 nails into),
25 roundhead nails,
rubber bands
(perhaps coloured).



N.B. 10 x 10 boards are also popular.

Hammer the nails in exactly the same distance apart until you have 5 equal rows of 5 nails (see diagram). You now have a geoboard ready to use!

Ways to use a geoboard:

make shapes using the rubber bands
copy shapes already made
enlarge a shape
copy a shape upside down, turn the shape east, west
make a mirror image.

Fun Ways to Learn Mathematics

Three Dice

In turn each player throws 3 dice and adds the numbers together. The first player to reach 25 is the winner. The winner must reach 25 exactly.

Make it Easier!

Use 2 dice or 1 die.

Make it a Challenge!

Make the winner the first player to 57, 99, 150 ...

Dice 1000

You will need 2 dice, a piece of paper and a pencil.

In turn, each player throws 2 dice and multiplies the numbers shown to find the answer. The answers are added until one player scores 1000 points exactly.

Make it Easier!

Use one die and make the winner the first to 20, 50 ... adding up as you go.

Make it a Challenge!

Use 3 dice.

Dice Tables

Throw 1 die. Each answer is multiplied by 2 until one player scores 100.

Other Ideas:

Multiply each answer by 5, 8 ...

Increase the target score to 1 000.

Decrease the target to 50.

Keep score on the calculator.

When playing board games multiply instead of adding dice.

Dividing Dice

You will need 3 dice, pen and paper, and a calculator.

The game helps to revise division number facts.

Decide the order of play by throwing one of the dice.

The player has to use the numbers thrown to make a division number sentence. One die must show the dividing number (the number of shares). The other two dice show the number being divided. Remainders are ignored.

For example, if a player throws a 6, a 4 and a 2 he or she can make a division number question such as $64 \div 2 = \underline{\quad}$. The answer to this question is the player's score for that round. So the player would score 32 points. If the player had divided 24 by 6 then the score would be 4.

The way this game is played can be changed each time it is played. For example, players could decide that the best score after five rounds wins.

The game can be made harder by making the aim to score exactly 100 points. In this case players could choose to throw only two of the dice as their total scores come closer to 100.

Dice 999

You will need 3 dice, pen and paper and a calculator (optional).

Each player starts with 999 points. The object of the game is to have no points left.

Decide the order of play by throwing one of the dice.

The first player throws all three dice together. The numbers showing on the dice are used to make a three digit number to take away from 999. For example if the player throws a 3, a 6 and a 1, then 631 can be taken away from 999.

Each player has a turn. The number shown by the dice is taken away from the remaining total. If the player throws a 5, a 4 and a 1 he or she could make 154 to take away from 368. The player could not take away 541 or 451, for example, since the answer would be less than zero. The turns continue until one player's score is exactly 0. Players do not have to throw all the dice each time.

Measure your Pet

Find out the mass of your dog. Ask your child how this could be done.

- e.g. Child holds pet and stands on bathroom scales.
Child is then weighed separately.
Mass of child and pet, take away the mass of child = mass of pet.

Make a Daily Timetable

Help your child set out a daily time chart. You make one too!

e.g.

<u>ME</u>	<u>DAD</u>
7.30 get up	6.30 have a shower
8.00 have breakfast, etc.	7.00 dress, shave, etc.

Coin Rubbings

You will need a collection of different coins.
Place a coin on the table and put paper over it.
Use a lead pencil to rub over the paper where the coin is underneath. Try using different coins.

Investigate which parts of the coins come out lightest / darkest.
Make patterns using the coin rubbings.
Discuss the animals on the coins. If possible, visit these animals at a zoo, wildlife sanctuary or animal park.
Use plasticine or play dough (see recipe p. 34) to make coin pressings.

Make a Dollar

You will need 1 cent, 2 cent, 5 cent, 10 cent, 20 cent, 50 cent and \$1.00 coins.

Roll 2 dice and collect from the "bank" an amount in cents equal to the total of the dice. As the game continues, trade 1 cent coins for 2 cent, 5 cent coins etc. The winner is the first player to have a dollar coin.

Using 1 cent, 10 cent and 1 dollar coins only will help to reinforce ideas of the base 10 number system.