

Welcome to our PIN afternoon.

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Monday 29th January 2018

**TEAM Numeracy – Y2, Y5, Parents
and Teachers!**

What is PIN?

Project Started 1998 School Improvement

The Strategy Document for the Promotion of Literacy and Numeracy in Primary and Secondary Schools in Northern Ireland states:

‘The Government shares the widely-held view that partnership with parents can be highly effective in supporting and complementing the work done in school.....’ [Advert](#)

Why Parental Involvement?

The Research

- *If parents engage with their children's education, the attainment of the child will increase by 15% no matter what the social background of the family. - Professor Charles Deforges*
- Research (up to 2.24)
- Children whose parents take an active interest in their child's education make greater **progress**, have more **positive attitudes** towards school, **feel happier** at school and **achieve more** at school.

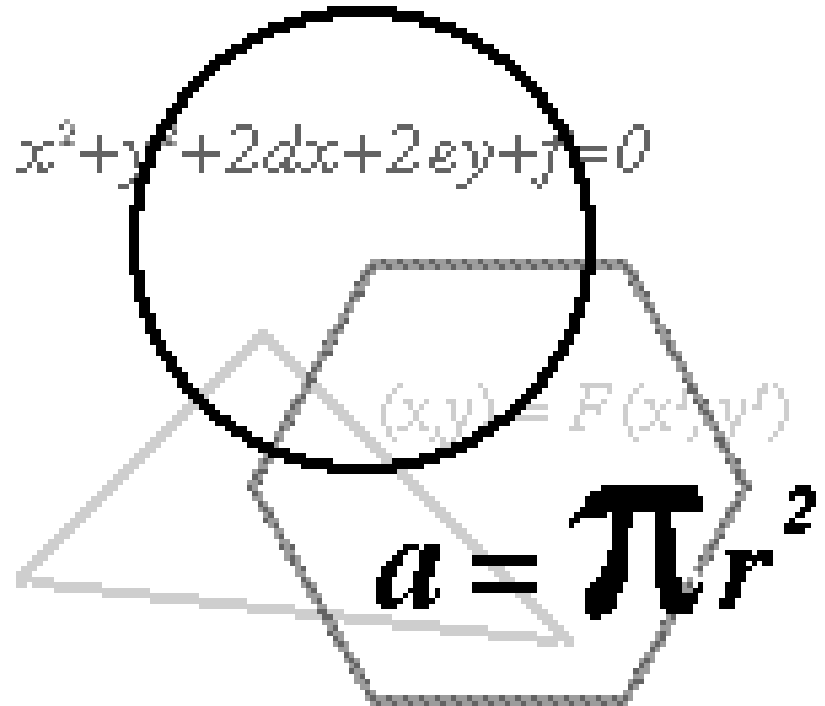
IN THE PAST

- Arithmetic – the four rules of number
- Pages of sums without any underlying understanding
- Drill and practice

⊕ Attitudes to Mathematics

- ⊕ Bad experiences
- ⊕ Negative feelings
- ⊕ Right or wrong answer
- ⊕ Fear of maths
- ⊕ Mental Arithmetic
- ⊕ Quick fire questions

Parents unknowingly
pass on these negative
attitudes to the child



Mathematics In Our Classrooms Today

✚ Taught range of **Strategies**

✚ **Work Mentally**

✚ Observe **Patterns**

✚ Predict **Results**

✚ Talk about **Connections**

✚ **THINK FOR
THEMSELVES**

■ **Games and Puzzles**

■ Present images of numbers in different structured formats

■ Motivate children to tackle numerous calculations **in their heads**

■ Reflect on numerical relationships that will be advantageous in their game strategy



In our school number skills are taught
using different strategies

- ***Practically using a variety of apparatus.***
- ***Mentally***
- ***Pencil and paper methods.***



Decomposition – an example

■ $24 - 17 = ?$

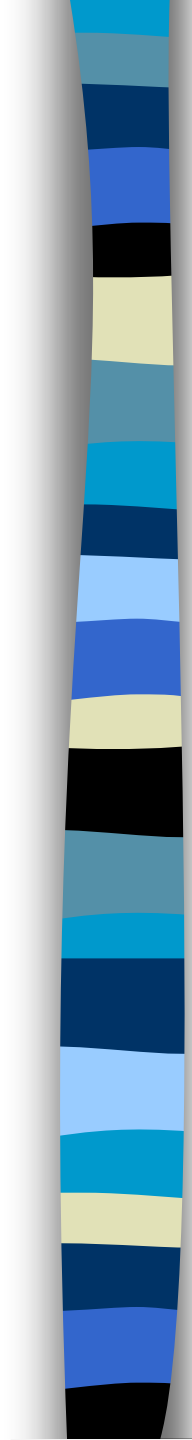
SPEAK THE SUM

- Twenty-four take away seventeen equals ?
- Twenty-four subtract seventeen equals?
 - Twenty-four minus seventeen equals?
 - Find the difference between twenty-four and seventeen.



The children can approach this sum in a variety of ways

- Use the **number line/apparatus** to count back 17 from 24.
- Use their knowledge of **addition in reverse of subtraction** e.g.
 $(17 + 7 = 24)$ therefore $(24 - 17 = 7)$
- By **rounding and adjusting** e.g.
 $24 - 17 =$ is the same as
 $24 - 20 + 3 = 7$
- By **counting on** 17 to 20 (+3) to 24 (+4) = +7
- By **partitioning** $24 - 17$ is the same as $24 - 10 - 7$
- **Paper and pencil** sum



The language used at this stage is very important. $94 - 47 = ?$

Always TOP take away BOTTOM (TTAB)

- Four take away seven.
- Go to tens side.
- Take one ten over to units side.
- Exchange the ten for ten units/ones.
- Add on the four – make 14
- 14 take away seven
- Leaves seven.
- Eight tens left.
- Eight tens take away four leaves four tens.

$$\begin{array}{r} 94 \\ -47 \\ \hline 47 \end{array}$$

What will it involve?



Playing maths games at home!

Why Paired Games?

Games can help to:

- ❖ Stimulate children
- ❖ Improve their mental skills
- ❖ Provide opportunities for children to ask as well as answer questions
- ❖ Help to develop their potential to think creatively
- ❖ Develop children's language skills
- ❖ Develop self-esteem and confidence in their ability to do maths



Why Paired Games?

Positive early experiences help
children to believe that they



can do

Maths.

How will the paired games be organised?

- You and your child will sign a contract this afternoon agreeing to play **2 maths games** a week for **6 weeks**. Your child will choose and take home a game on a *Monday and Thursday*.
- The games must be returned to school on Mondays (given out on previous Thursday) and Thursdays (*given out on Mondays*)

Please ensure that games are returned with all the contents intact - a list of contents will be found in each bag.

● Your child will also receive a 'Record Book' for the games.

● In this little book they can give their own opinion of the game –

did they find it easy/difficult, fun or boring?

would they recommend it to their friends?

what did the game teach them?

● The information gathered in these record books will be used to inform the purchasing of more games in the future.

WEEK 1

The games I played this week were called

These games were easy 1 •

2 •

3 •

4 •

difficult 5 •

These games were fun/boring

I would recommend this game yes/no

These games taught me to _____

Before you go

- ✓ Please make sure you have filled in a **questionnaire**.
- ✓ Please sign the paired maths games **contract** with your child. This contract will then be put on display within the school.
- ✓ Please feel free to have a **look at the games** and play them with your child on the tables in your child's classroom.
- ✓ As always, **thank you very much** for coming and for your continued support.

Happy Gaming!