PROJECT MATHS

Information Evening
30th Sept 2013

Background to the introduction of Project Maths

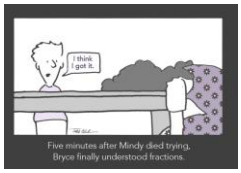
"Just not good at maths"

- Poor self esteem
- No confidence
- This **attitude** results in students not even trying to understand certain topics

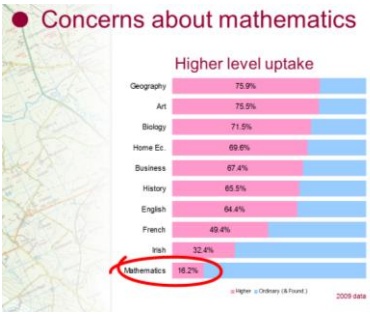
Background to the introduction of Project Maths

"Can't do maths – Won't do maths!"

- This impacts their **motivation** and **retention**.
- Hard for students to see the **connection** between their lives and maths



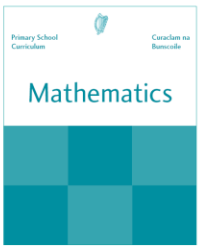
National concerns with Maths



THE NEW SYLLABUS

Project Maths

Continuity

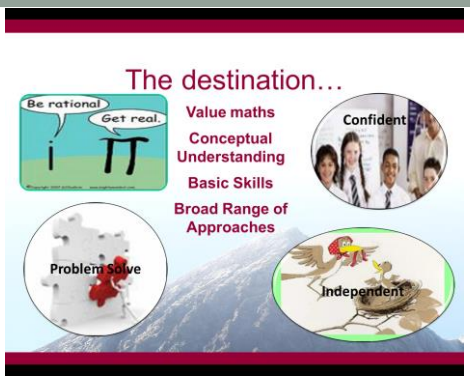


Primary School Curriculum

Primary	Post-primary
Data	Statistics & Probability
Shape and Space	Geometry & Trigonometry
Measure	
Number	Number
Algebra	Algebra
	Functions

Strand 1	Statistics & Probability
Strand 2	Geometry & Trigonometry
Strand 3	Number
Strand 4	Algebra
Strand 5	Functions

WHAT DO WE WANT FOR **OUR** STUDENTS?



How does Project Maths differ from 'Maths'?

1. A change in teaching **methodologies**
2. The layout of the **exam** paper
3. A change in the type of **skills** required by the student

New teaching methodologies

- **Use of ICT in the classroom**
  - Video clips
  - Powerpoints
  - Geogebra
- **"Hands-on" activities with concrete materials**
  - Student discovery through activities
  - Pair work/ group work
- Mathematical games/Quizzes
- Using real data to understand statistics

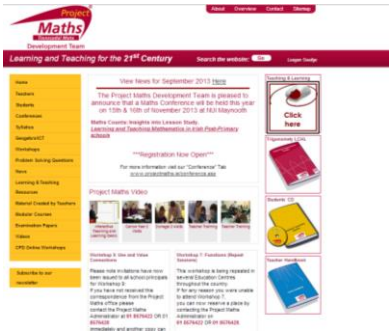
Resources we use

- PROBABILITY KIT
- JUMBO PLAYING CARDS
- GEO STRIPS
- GEOMETRIC CONSTRUCTION KIT
- STUDENT WHITE BOARDS
- CLINOMETER
- Angle Estimators
- Rainbow fraction tiles
- Unifix cubes
- Tape Measures
- Measuring Cylinders
- Getting Into Solids Kit
- Relational GeoStrips
- Number Lines
- http://www.projectmaths.ie/videos/carlow.asp

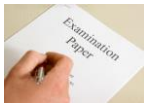



Project maths website

www.projectmaths.ie



Layout of exam paper



- There is **no** choice on the paper
- The student writes answers on to the exam paper
- The no. of questions can vary
- Requires students to 'think on their feet'

Sample Q

Question 7 (75 marks)

The table below shows the rates of births, marriages and deaths in Ireland from 1990 to 2010. The rates are per 10000 of the estimated population.

Number of Births, Marriages and Deaths in Ireland (per 10000 of the estimated population)

Year	Births	Marriages	Deaths
1990	151	51	90
1991	150	49	89
1992	144	47	87
1993	138	47	90
1994	135	46	86
1995	133	43	90
1996	140	45	87
1997	144	43	86
1998	146	45	85
1999	144	50	87
2000	145	51	83
2001	150	50	79
2002	155	52	76
2003	155	51	73
2004	153	52	71
2005	148	52	68
2006	154	52	67
2007	163	52	64
2008	168	50	63
2009	167	48	63
2010	165	46	61

(Source: Central Statistics Office, http://www.cso.ie)

(a) Complete the back to back stem and leaf plot below to show the marriage rate and death rate in Ireland during the period covered in the table above.

Marriage rate | Death rate

4
5
6
7
8
9

Key:

(b) State one difference that can be observed between the distributions of the marriage rate and the death rate in your plot.

(c) Find the median and interquartile range of the yearly marriage rates in Ireland from 1990 to 2010.

Median | Interquartile range

Your role…

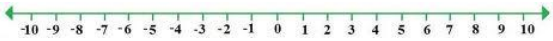
- Relate maths problems (tasks) to **real life** situations where possible
- Encourage your child to try different **strategies** in order to solve the problem.

Problem Solving Strategies

- How can you relate negative numbers to **real** life?

Temperature!

Strategy: use a number line



Problem Solving Strategies

Saoirse thinks of a number and divides it by 2 and adds 5 to her answer. The result is 9.

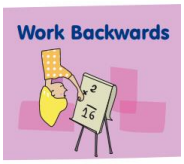
$$\begin{aligned} & 9 \\ & -5 \\ & = 4 \\ & \times 2 \\ & = 8 \end{aligned}$$

Check!

$$8 \div 2 = 4 + 5 = 9$$

Algebra

$$\frac{x}{2} + 5 = 9$$

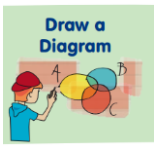


Problem Solving Strategies

- Find the surface area of a cube with side 3cm

http://www.projectmaths.ie/students/strand3JC/cube.html

- One square $3 \times 3 = 9$
- Six squares $9 \times 6 = 36$



Your role

- Encourage your child
- Instil confidence
- Relate maths problems (tasks) to real life situations
- Play games involving numbers e.g. playing cards
- And most importantly encourage a positive approach to maths!