Helping primary children succeed ir
mathematics

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3 questions:

- Why is maths difficult to learn?
- Who are the "low attainers" in maths?
- What can we do to help children succeed?

Why is maths difficult to learn?

- Badly taught (sometimes)
- Hierarchical (in parts)
- Abstract (eventually)

Who are the low attainers?

- Poor readers or writers
- · Badly taught in the past
- Frequent absence from school
- Poor concentration/memory
- · Lack of confidence
- Physical/perceptual difficulties
- Behavioural 'problems'

What can we do to help children succeed?

4 areas of action:

- · Reduce anxiety
- Increase personal involvement
- Encourage independence
- Use assessment

Reduce anxiety (the fear of getting things wrong)

- Acknowledge that something may not have been explained well enough before.
- Point out strengths in other areas of maths.
- Emphasise that you can learn more when you make a mistake...

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Reduce anxiety In the doughnut factory 1000	
The doughnut factory	
10000	
Reduce anxiety	
 Provide a friendly working atmosphere. Don't rush. 	

Increase personal involvement

- Importance of motivation.
- Contexts which are age-appropriate.
- Don't teach skills in isolation.

Increase personal involvement

- Have clear aims for learning and teaching.
- Emphasise the value of personal methods.

Encourage independence

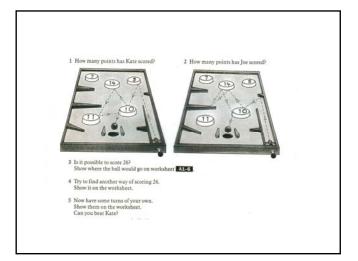
Some children learn <u>dependence</u>.
 Need to give children control and responsibility.



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Encourage independence

- Teach reading.
- Think about 'readability'.



	out how muc comics at 10p	h these cost. each (b) 3 bo	oks at 20p	each	
(a) 4 (d) 2	plates	(b) 2 glasses (e) 3 toy cars	(c) 2 dist (f) 2 pla (i) 4 pos	nt pot holders	
Сору	this bill and c	s, 4 dishes and 4 complete it.		4 mugs cost 4 dishes cost 4 plans cost Total cost	
	2 comic 3 dishes 2 toy car	s	es anappa	5 egg cups I plant pot helder 2 posters	

Encourage independence

- Encourage children to make up questions, not just find answers.
- Use a mixture of ways of working

because it aids concentration, increases confidence, and is more likely to include a method which a particular pupil will enjoy!

Children who are badly organised need more practice at getting organised!

Use assessment

- Evidence of success and progress is important.
- Even a 'failed' assessment can have positive outcomes.

Example: Shaun and the pigeons

There are 5 birds.
They have 2 legs each.
How many legs altogether?

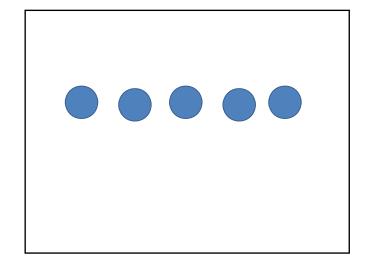
Use assessment

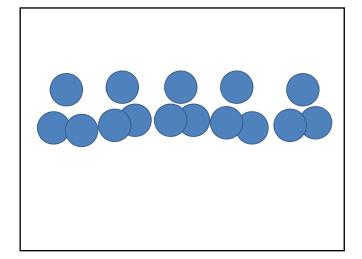
Example: Shaun and the pigeons

There are 5 birds.
They have 2 legs each.
How many legs altogether?

Shaun's answer was 15.

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Two weeks later...

There are 8 birds.

3 flew away.

How many birds were left?

Shaun's answer was 10.

Use assessment

- Evidence of success and progress is important.
- Child should know the purpose of the assessment.
- Look at the <u>process</u> as well as the end result; be prepared to ask the child about their logic.
- Assessment should lead to action.