



**GREENMOUNT
NATIONAL SCHOOL**



University College Cork, Ireland
Coláiste na hOllscoile Corcaigh

I.N.T.O. Conference on Special Education

Workshop on Maths Recovery and Inclusion

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**GREENMOUNT
NATIONAL SCHOOL**

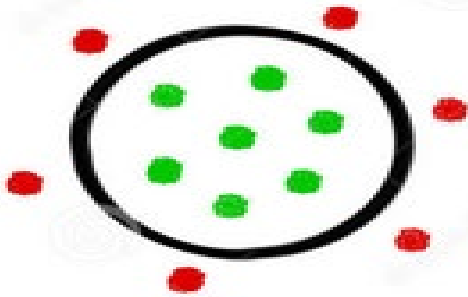


University College Cork, Ireland
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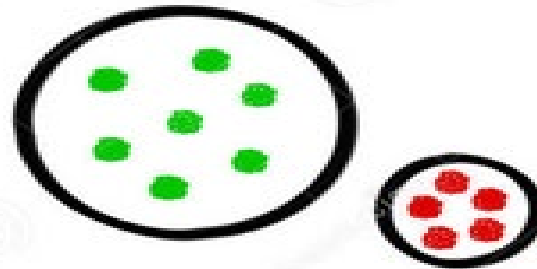
Championing Inclusion

From 'Most' + 'Some'to 'Everybody'

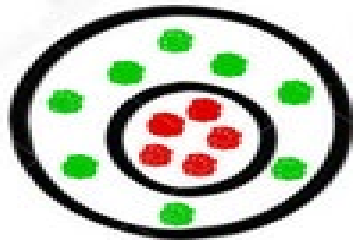
EXCLUSION



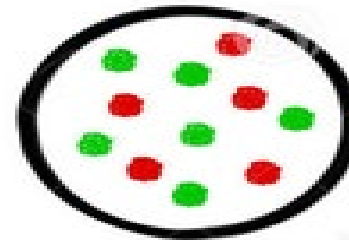
SEPARATION



INTEGRATION



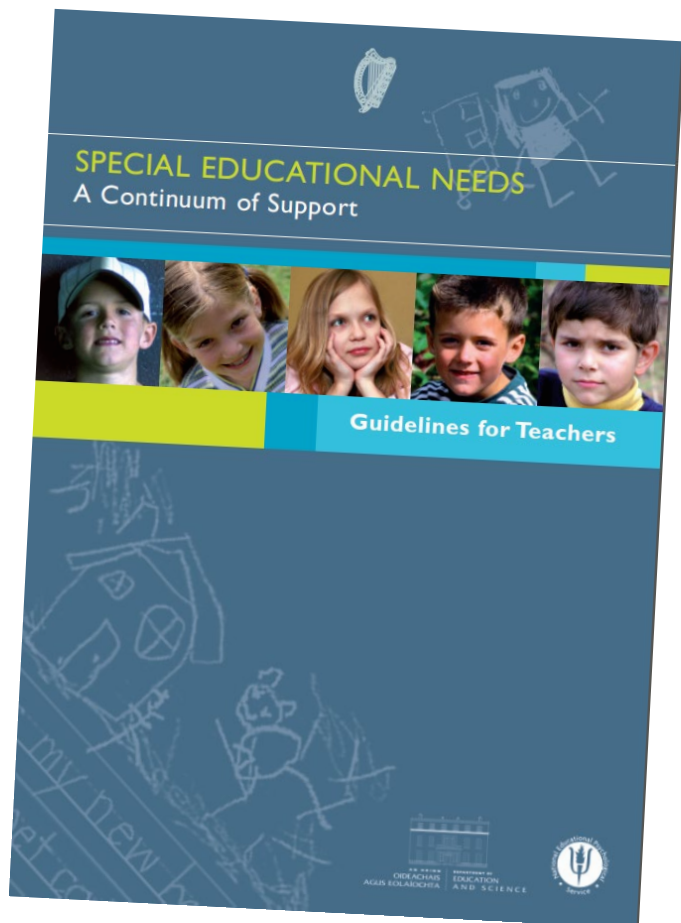
INCLUSION



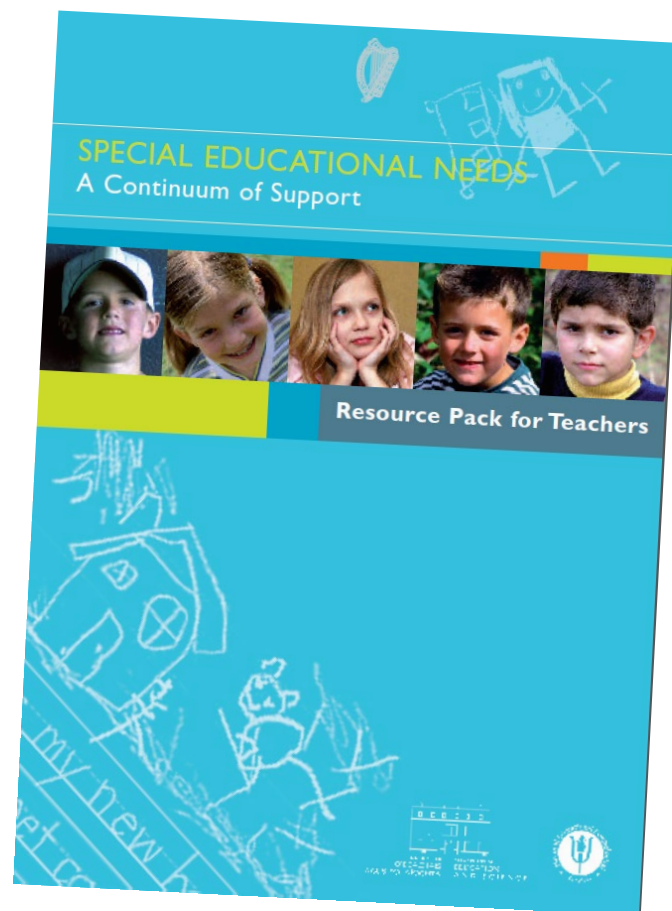
'Most' + 'Some'

'Everybody'

INTO Consultative Conference Theme: *'Inclusion – a continuum of support'*.



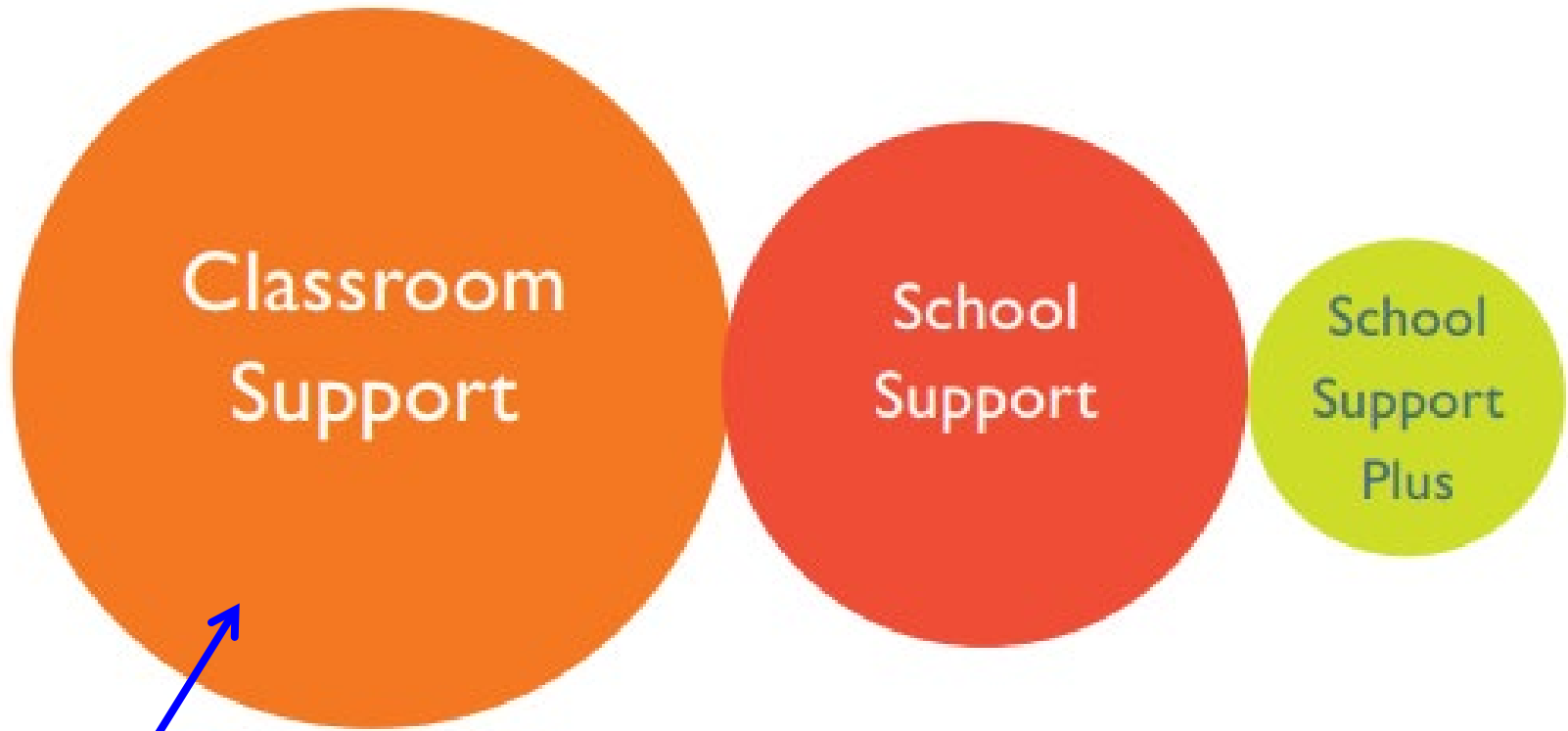
NEPS
2007



www.education.ie/en/Schools-Colleges/Services/National-Educational-Psychological-Service-NEPS-/neps_special_needs_guidelines.pdf

www.education.ie/en/Schools-Colleges/Services/National-Educational-Psychological-Service-NEPS-/neps_special_needs_resource_pack.pdf

INTO Consultative Conference Theme: *'Inclusion – a continuum of support'*.

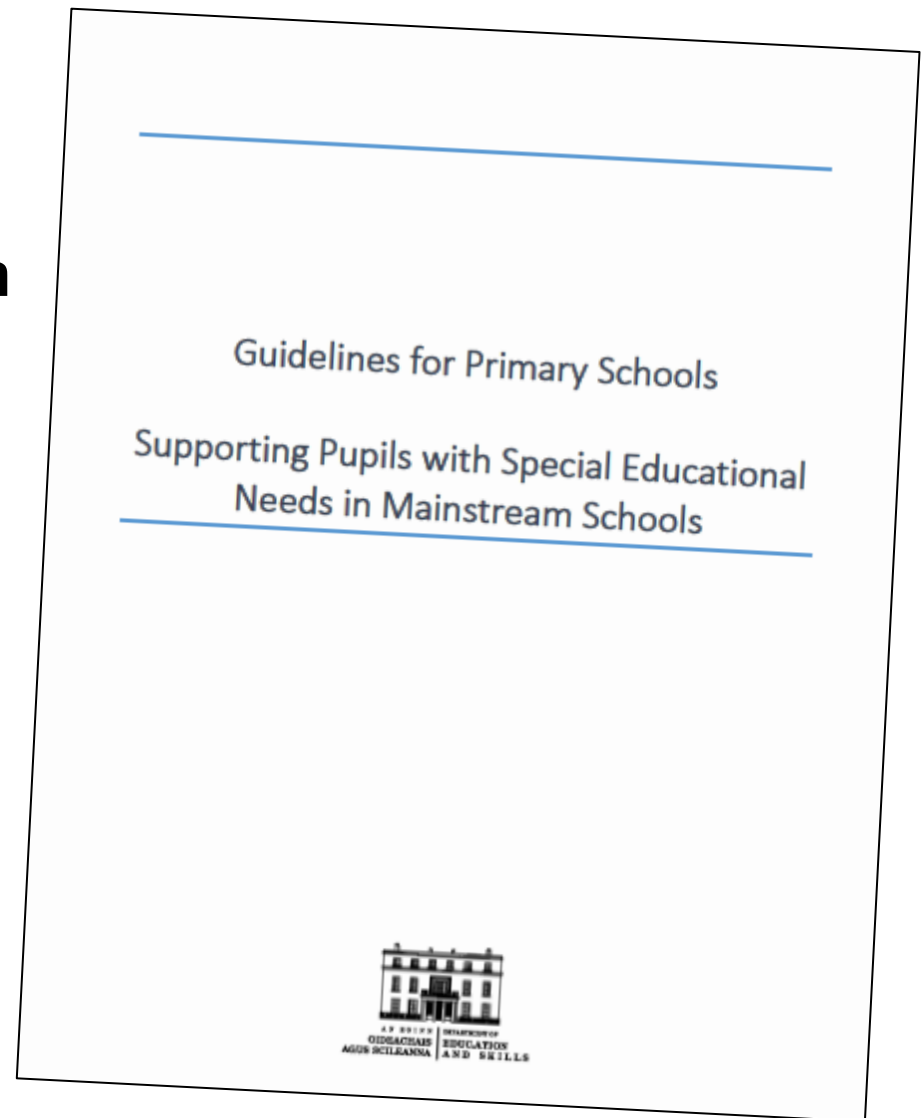


NEPS 2007

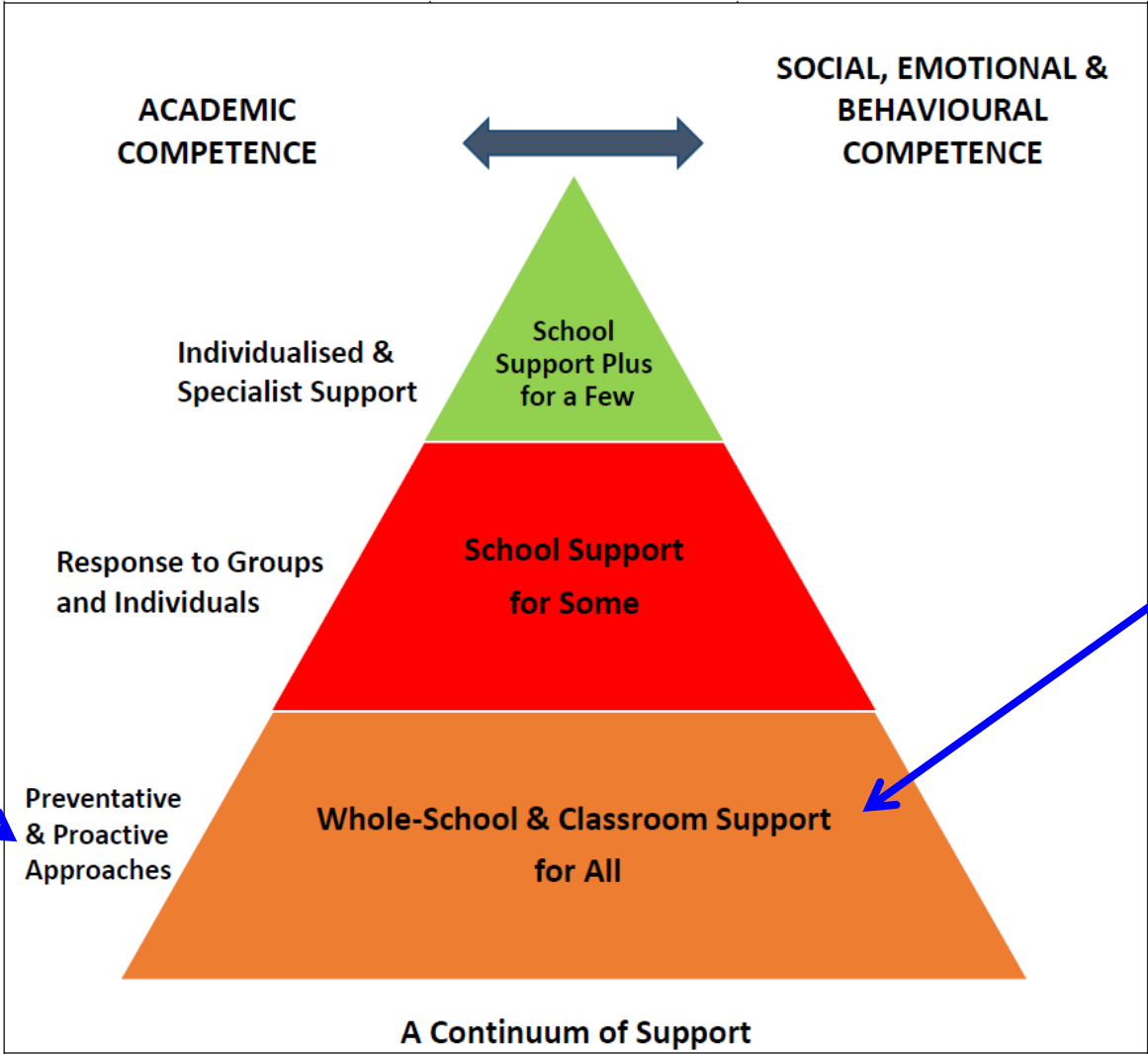
Continuum of Support: From 2007 to 2017

Supporting Pupils with Special Educational Needs in Mainstream Schools: - *Guidelines for Primary Schools* (DES 2017)

www.education.ie/en/The-Education-System/Special-Education/Guidelines-for-Primary-Schools-Supporting-Pupils-with-Special-Educational-Needs-in-Mainstream-Schools.pdf



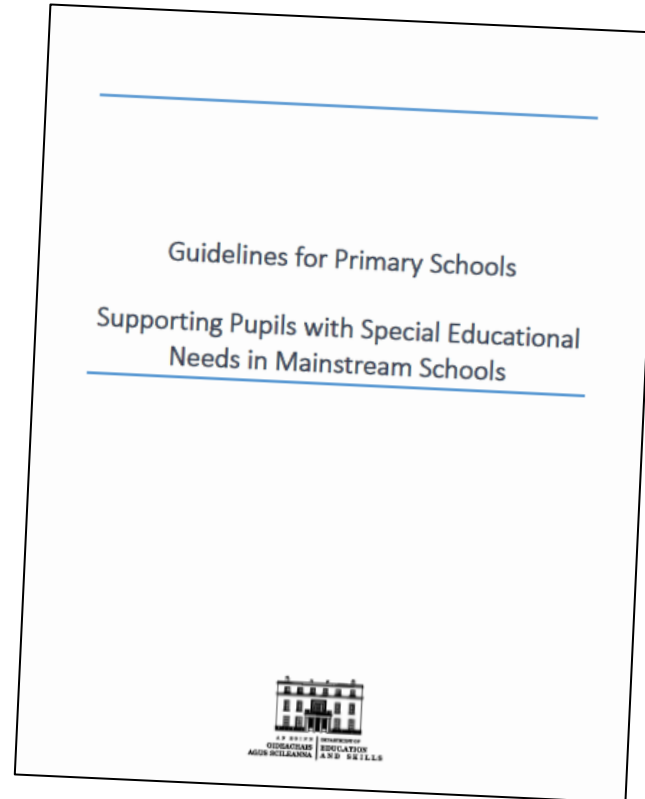
INTO Consultative Conference Theme: *'Inclusion – a continuum of support'*



DES 2017

Learning and support needs of pupils - addressed through a continuum of support process.

- Benefits of **early intervention and prevention** programmes in meeting pupils learning needs

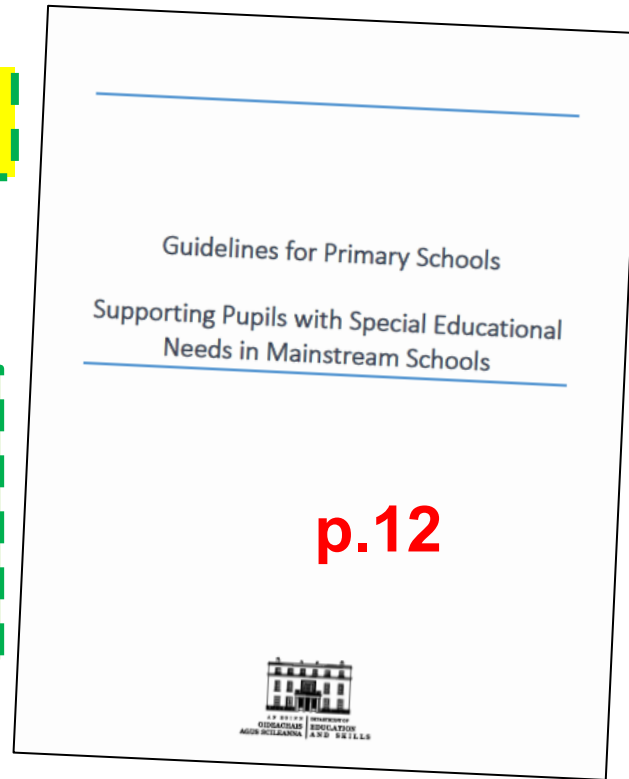


- **Co-operative teaching and learning** within mainstream classrooms

Mainstream class teachers - implementing teaching approaches and methodologies that **facilitate the meaningful inclusion of students in mainstream classes.**

- **Differentiation**

- **Collaborative problem-solving activities**

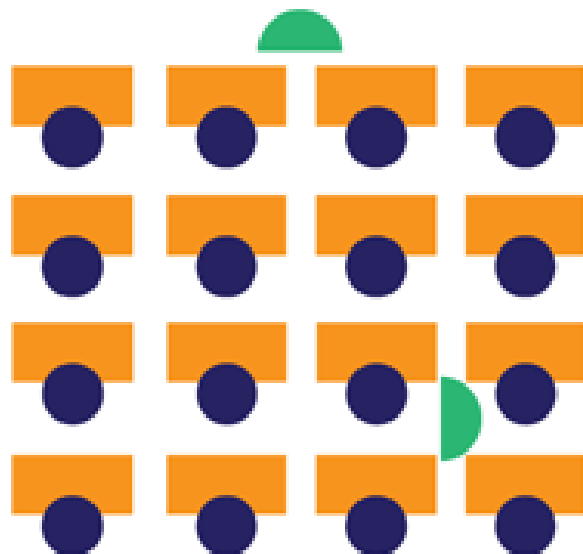


- **Heterogeneous group work**

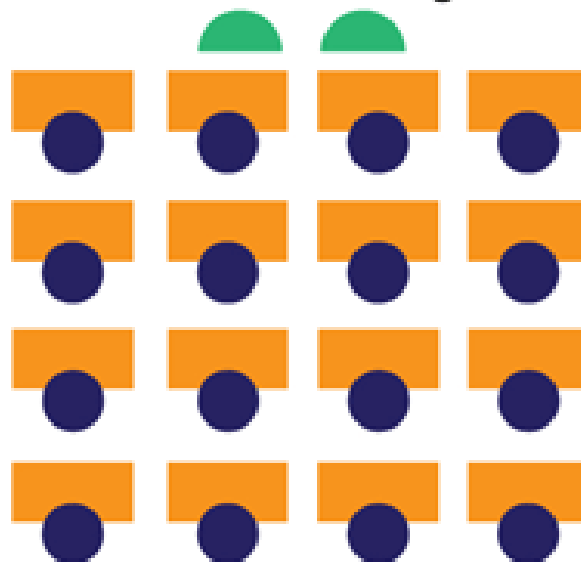
- **Utilising station teaching approaches [especially in the junior classes].**

Schools have the **flexibility to be innovative** in developing new approaches.....**and in sharing successful practices.**

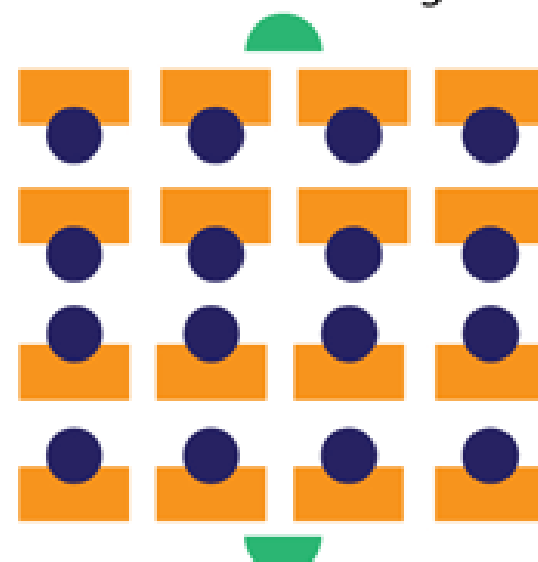
One teach, one drift



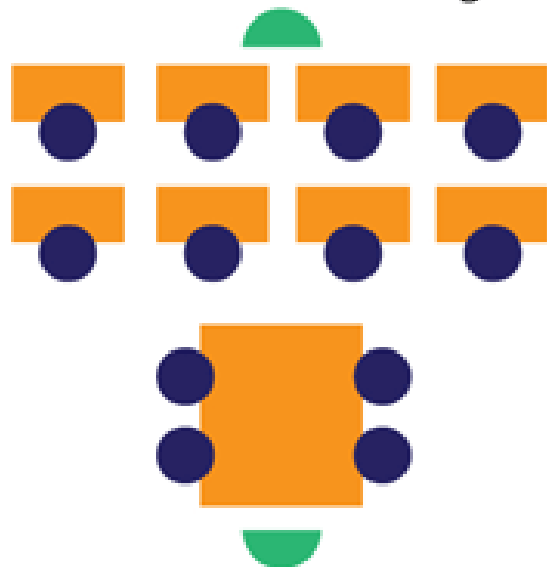
Team teaching



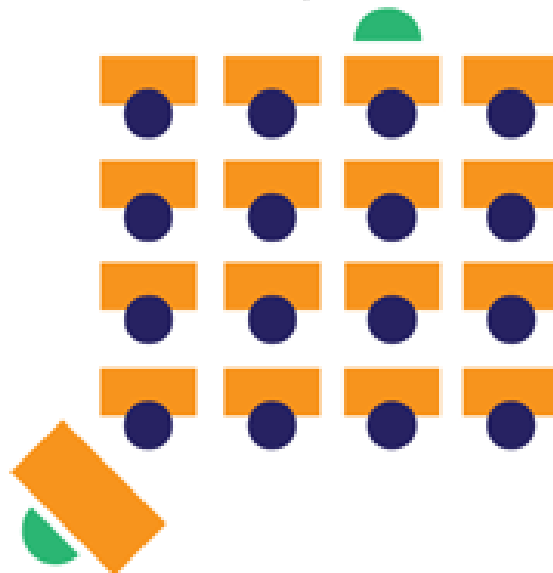
Parallel teaching



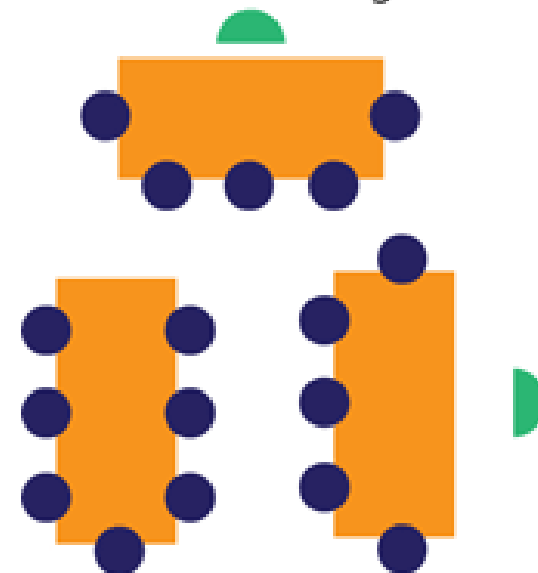
Alternative teaching



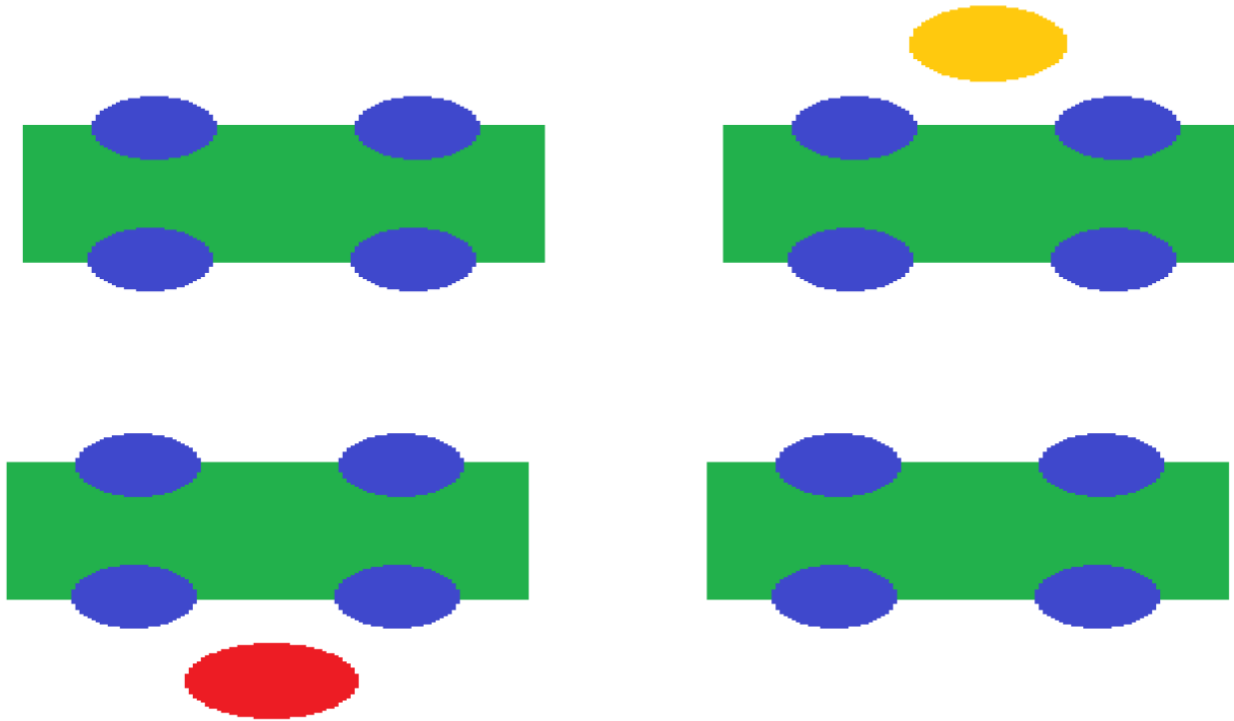
One teach, one observe



Station teaching



Station Teaching



Station Teaching:

- Two (or more) teachers - divide content.
- Each teacher delivers a portion of lesson to section of the class
- Students rotate between teachers
- OR teachers rotate between students
- Planning & timing are important.

STATION TEACHING IN JUNIOR CLASSES

PRACTICAL TIPS FOR YOUR CLASSROOM



TRAINING
DVDs
INCLUDED



Written by Dr. Dympna Daly
Edited by Ann Daly and Siobhán O'Regan

 West Cork
Education Centre
Ionad Oideachais Iarthar Chorcaí

- Guidance on organisational issues
- List of useful resources and planning sheets.
- Advice on literacy activities at the Stations.
- Detailed instructions for teachers running Stations in **Junior Infants, Senior Infants and First classes.**
- Training DVDs

<https://westcorkeducationcentre.ie>

Click on **“Resources”** Link
[€15.00 + P&P]

Maths Recovery

Overview and Application

Origin of Maths Recovery

- Intervention programme for early number learning, developed by Dr. Robert J. (Bob) Wright, Southern Cross University, New South Wales
- Based on his research work over the last twenty-five years
- Implemented in New Zealand, Ireland, the UK, the USA, Canada, Mexico, South Africa and elsewhere...

Maths Recovery Programme

- Provides specialist training for teachers to advance the numeracy levels of young children assessed as low-attainers.
- Extensive application to classroom teaching and to average and able learners as well as low-attainers.

Origins of Maths Recovery

“A three-year difference in the early years of school becomes a seven-year difference for low-attaining children after about ten years of school”.

Wright et al., 2006, p.2

Early intervention...

- Before gap is too wide
- Before the child experiences too much failure

Learning Framework in Number (LFIN)

- Provides an **overview** of instruction in whole number arithmetic (first six years of primary education)
- Teachers can use the LFIN to organise:
 - Assessment
 - Planning
 - Instruction

Basic Elements of the LFIN

- **Three bands** of learning with a focus on Band 2: Early Number (EN) and Band 3: Middle Number (MN)
- **Three pedagogical tools:**
 1. Assessment schedules
 2. Models of learning progressions
 3. Teaching charts

Basic Elements of the LFIN

- **Nine key domains** of number from emergent numeracy through to strong additive and multiplicative arithmetic
 - Developed over years of research and teaching
 - Substantial area of learning (ranging from a few months up to three years)
 - Distinctive assessment tasks and instructional procedures

Progression of Pedagogical Tools

1. **Assessment schedules**

- Interview... no reading, no writing
- Neither age-related nor curriculum based

2. **Models of learning progressions**

- Responses from each assessment determine the levels or stages of numerical knowledge

3. **Teaching charts**

- Assessment responses and the models guide the development of an instructional plan and their subsequent progression

LFIN

“Teachers must learn to think mathematically as if they were the children.”

Leslie P. Steffe

(Foreword to Wright and Ellemor Collins, 2018)

A look at the Stages of Early Arithmetical Learning (*SEAL*)

- Stage 0: Emergent Counting
- Stage 1: Perceptual Counting
- Stage 2: Figurative Counting
- Stage 3: Initial Number Sequence
- Stage 4: Intermediate Number Sequence
- Stage 5: Facile Number Sequence

SEAL

Let's look at some videos
which illustrate the Stages of
Early Arithmetical Learning...

Application of the Maths Recovery Programme

A variety of MR implementations are in place:

- Maths Recovery (as a DEIS Intervention)
- Mata sa Rang (through the Education Centres)
- Maths Blast (school-based implementation)
- Maths Factor (school-based implementation)

In-class Implementation

Let's look at some videos of Maths Recovery in action in the classroom...

Bibliography

- Wright, R.J. & Ellemor-Collins, D. (2018) *The Learning Framework in Number*. London: Sage
- Wright, R.J., Ellemor-Collins, D. & Tabor, P. (2012) *Developing number knowledge: Assessment, teaching and intervention with 7 – 11 year olds*. London: Sage
- Wright, R.J., Martland, J. & Stafford, A. (2006a) *Early numeracy: Assessment for teaching and intervention* (2nd edn). London: Sage
- Wright, R.J., Martland, J., Stafford, A. & Stanger, G. (2006b) *Teaching number: Advancing children's skills and strategies* (2nd edn). London: Sage
- Wright, R.J., Stanger, G., Stafford, A. & Martland, J. (2014) *Teaching number in the classroom with 4 – 8 year olds* (2nd edn.). London: Sage

Thank you for your attention

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www.mata.ie