PDST

Professional Development Service for Teachers | **An tSeirbhís um Fhorbairt Ghairmiúil do Mhúinteoirí**

www.pdst.ie

Junior
Certificate
School
Programme

Numeracy in the DEIS Context
Planning and developing a whole school approach to numeracy in the context of a JCSP school

Pat Coffey
Fergal Lyons
Hazel Gannon

PDST

Overview of the Day

Session 1 10:00 – 11.00	• Overview of JCSP and DEIS • DEIS Planning
11.00 – 11.15	Coffee
Session 2 11.15 – 13.00	• Sharing our Practice • Methodologies to Support Numeracy
13.00 – 14.00	Lunch
Session 3 14.00 – 3:30	• SSE Updates • Devising a DEIS Numeracy Plan • Close and Evaluation

PDST

Introductions?

PDST

Learning Intentions

- To provide an overview of DEIS planning

- To understand how JCSP can support your DEIS planning for numeracy

- To explore strategies/methodologies that will support numeracy development

- To understand the requirements of DEIS in the context of SSE

What is JCSP?

JCSP is a <u>social inclusion programme</u> that is aimed at students who are identified as being at risk of being <u>socially or academically isolated</u> or at risk of <u>early school leaving</u> before the Junior Certificate has been achieved

PDST

Aims of JCSP

To retain students

To build strong and positive learning foundations

To bridge the gap

To make school relevant and accessible to young people who find it difficult to cope with the school system

PDST
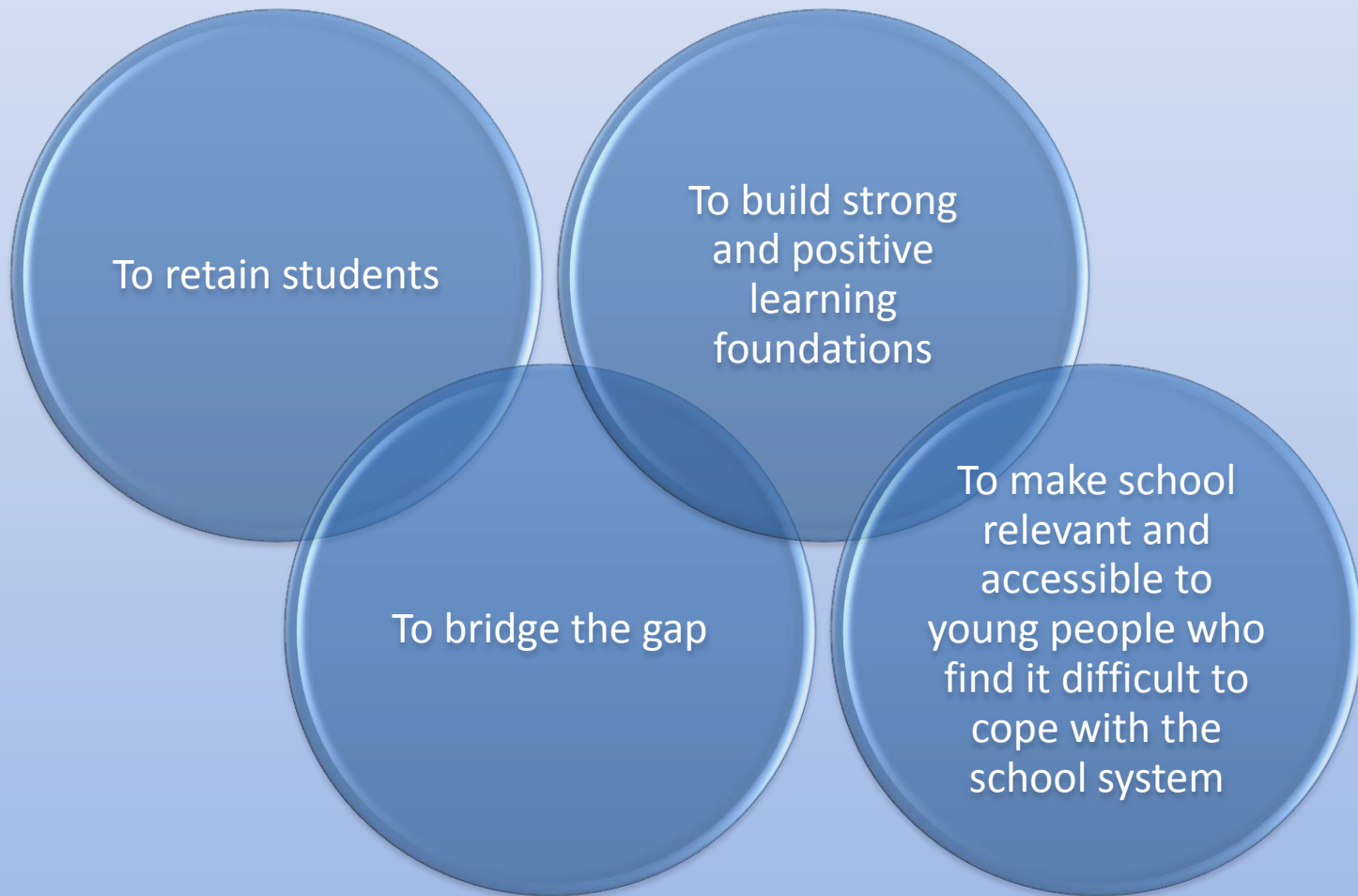
The JCSP Framework

- Builds confidence and self esteem

- Promotes inclusion

- Celebrates success

- Supports student engagement in learning

- Promotes active learning methodologies

- Supports differentiation

JCSP targets improvement in all identified areas of need . . .

|		
Literacy	Numeracy	Attendance
Behaviour	Communication Skills	Home
Social Skills	Self-esteem	Attainment

PDST

What is DEIS?

"Delivering Equality of Opportunity in Schools" (2005)

✓ DEIS is aimed at addressing the needs of children and young people from disadvantaged communities

✓ 194 Post Primary Schools

✓ 680 Primary Schools

✓ Educational measures and social measures

PDST

Action Plan for Education
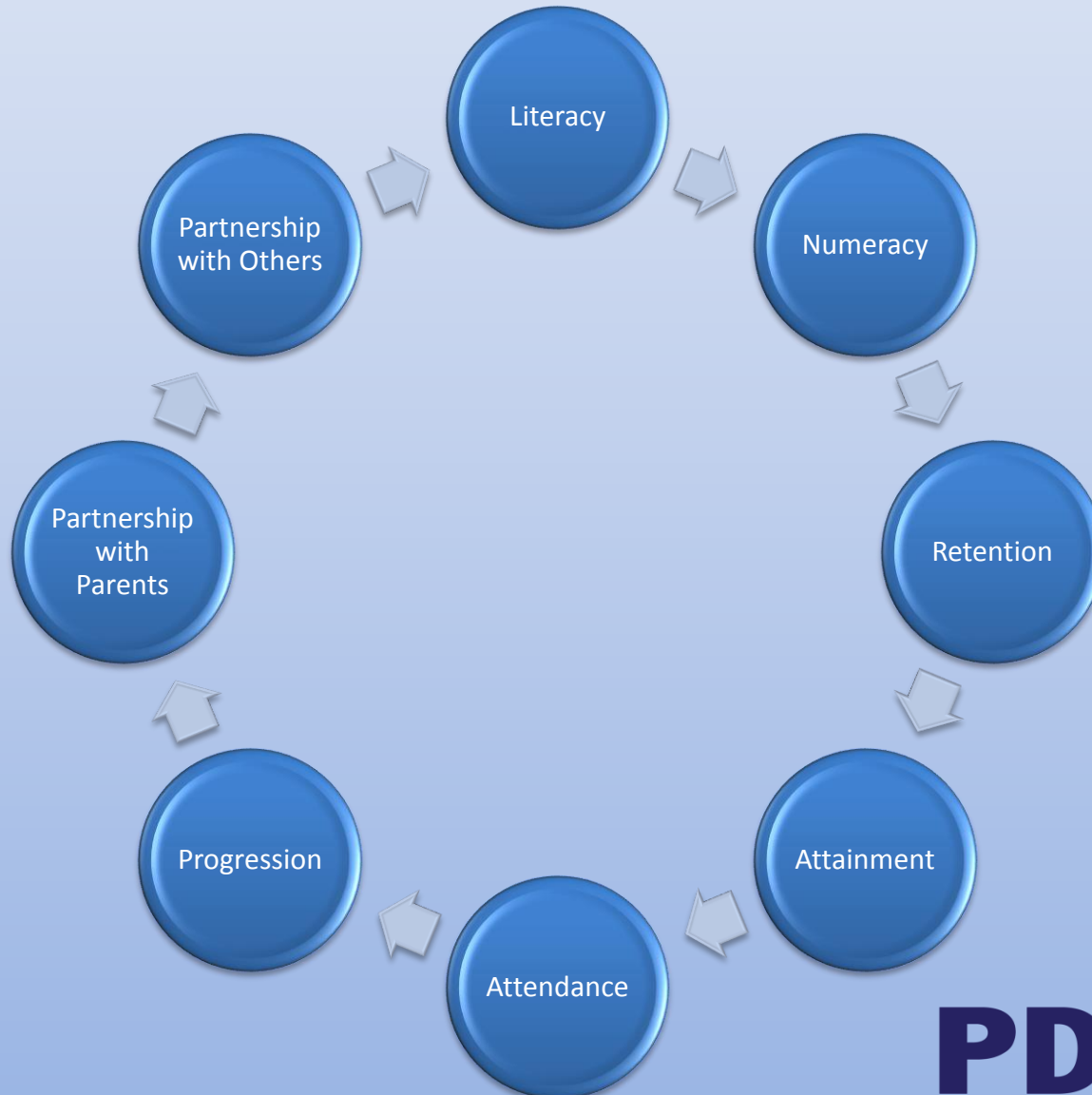# 2016-2019
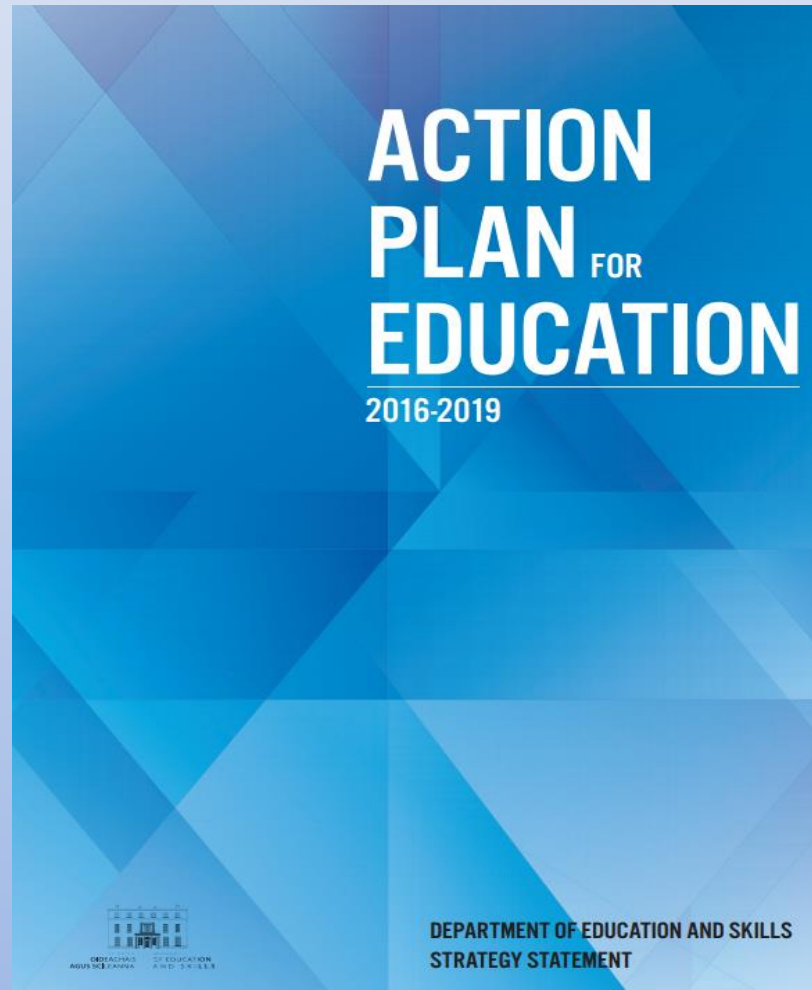
5 Goals

1. Improve the learning experience and the success of learners
2. <u>Improve the progress of learners at risk of educational disadvantage or learners with special educational needs</u>
3. Help those delivering education services to continuously improve
4. Build stronger bridges between education and the wider community
5. Improve national planning and support services

PDST

Goal 2: Improve the progress of learners at risk of educational disadvantage or learners with special educational needs

- DEIS is currently under review and seeking to incorporate best practice into a new programme

- Retention – proportion has grown from 68.2% ten years ago to 82.7% for those students who began second-level in 2009 (non DEIS is 92%)

- Literacy and numeracy outcomes have improved in DEIS schools, however, achievement data shows that outcomes are below the national norm

PDST

8 Areas of DEIS

- Literacy
- Numeracy
- Retention
- Attainment
- Attendance
- Progression
- Partnership with Parents
- Partnership with Others

www.pdst.ie

PDST

Student Needs Supported By . . .

School Books
School Meals

Higher Teacher Ratio

LCA

JCSP

Enhanced guidance for Junior Cycle students

DES Resources to DEIS Schools

SCP

HSCL

www.pdst.ie

PDST
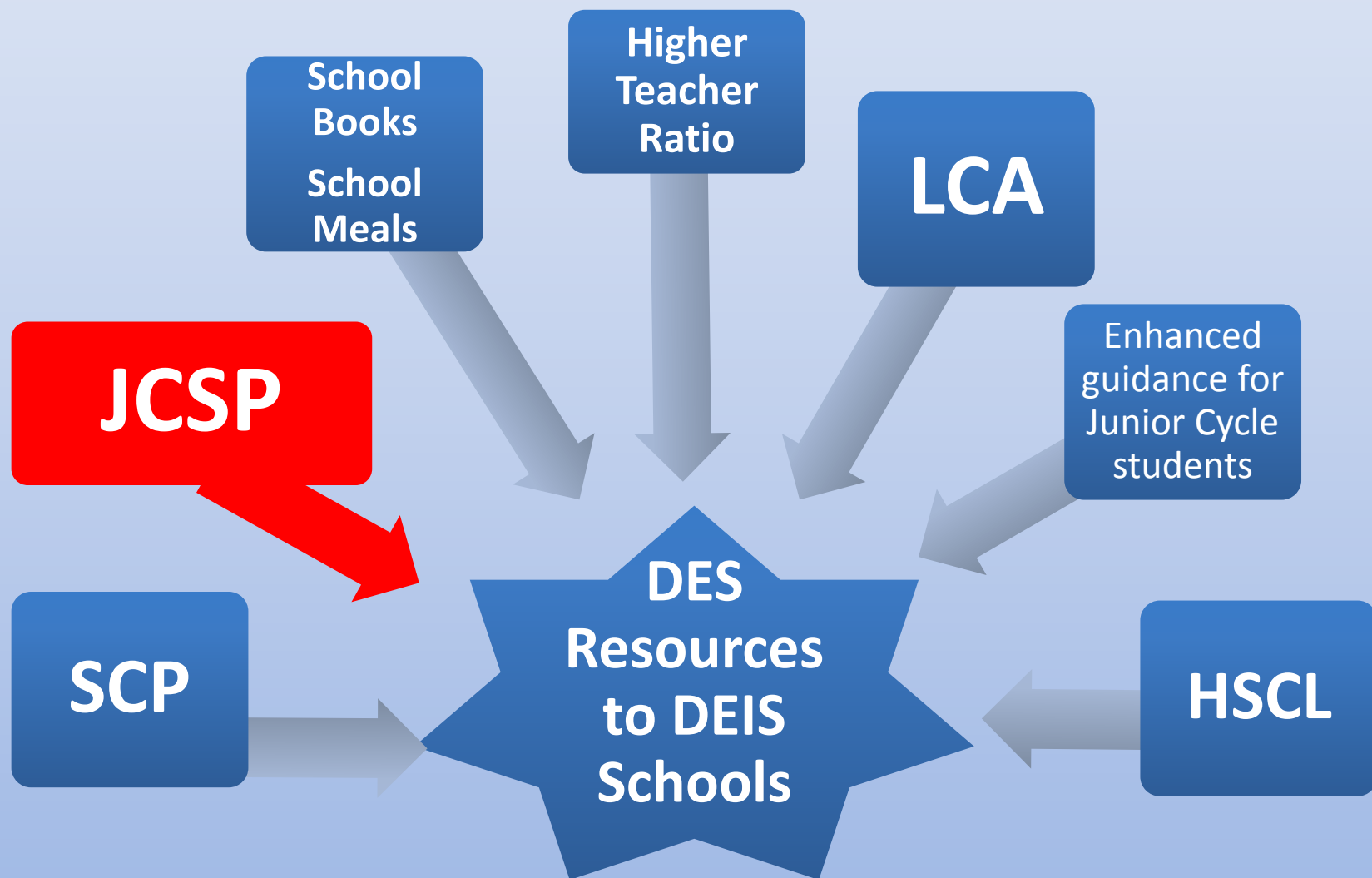
Working Together to Support Students

Students

Parents

All Teachers

HSCL

School Management

SCP

Principal

JCSP

B.O.M.

DEIS Targets

LCA

www.pdst.ie

PDST
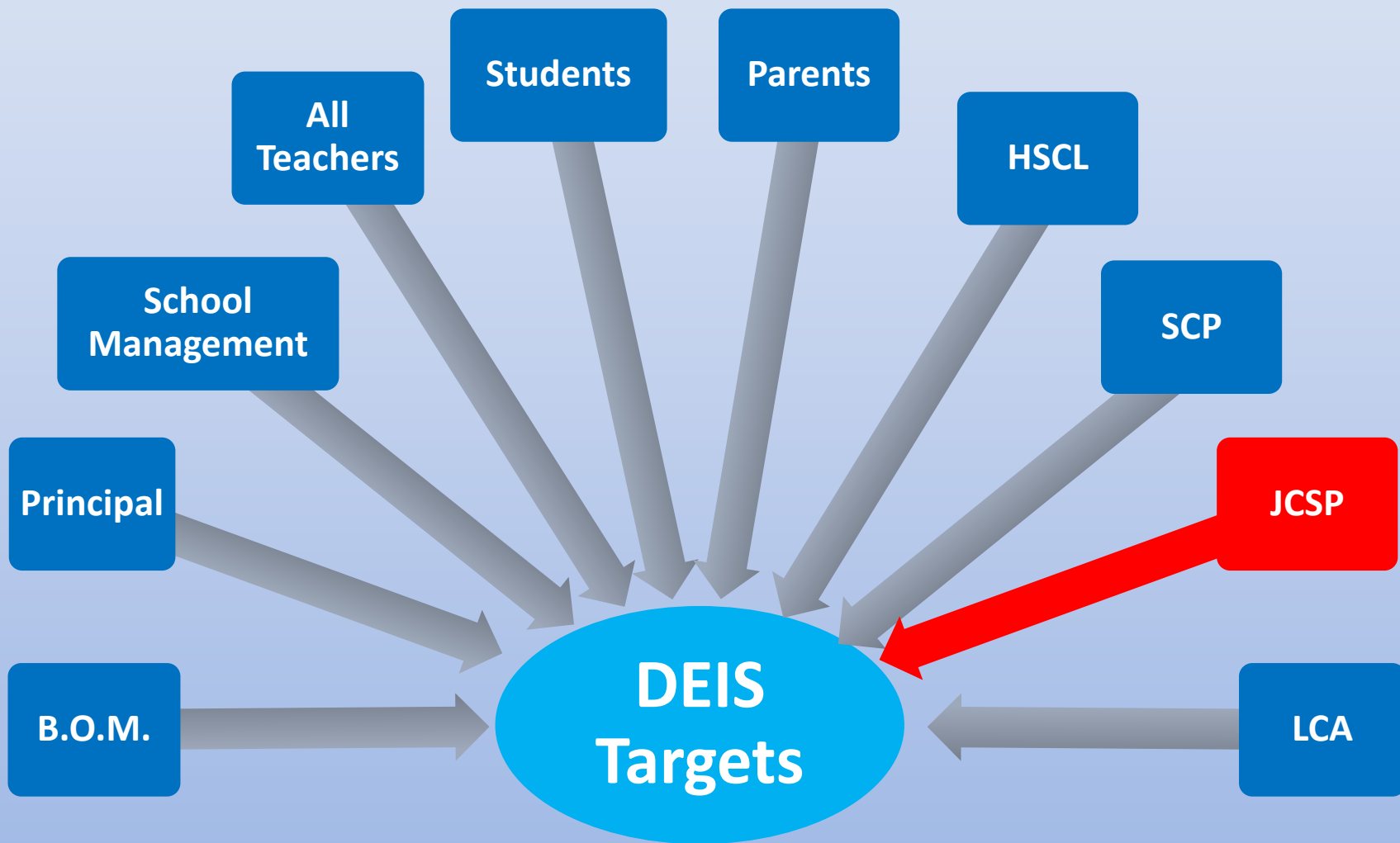
DEIS Core Team/Action Plan

Principal/Deputy

BOM

All Teachers

JCSP&LCA

Resource Team

Guidance

HSCL/SCP

Parents

PDST

JCSP Building Success in DEIS Schools

Retention and Attendance

Numeracy

Literacy

Profiling – Ensuring Success
Timetabled meetings
Student involvement
Cross curricular Initiatives
Research
Make a Book
Celebrations

Initiatives
Materials
CPD Resources
Interventions
Classroom Strategies
JCSP Library
Programme

Initiatives
Materials
CPD Resources
Interventions
Classroom Strategies
Make a Book
JCSP Library
Programme

"JCSP had a positive impact on student retention levels and enhanced student attendance levels".

Building on Success – JCSP Evaluation

Academic profiling
Success in
JC Examination
Homework initiative
Study Skills initiative
Specially Developed
Materials
Subject Statements
Certification

Celebrations
Postcards
JCSP Network
Initiatives
Transfer Programme
Final Profile Awards
Make a Book

Attainment and Progression

Partnerships

Whole School Approach

Accountability and student attainment are crucial in reviewing the DEIS Plan
All staff
need to be aware of DEIS targets and must be included in subject dept planning,
have a responsibility to ensure that DEIS targets are met ,
must familiarise themselves with the DEIS initiatives that are run in the school and how effective they are

PDST

Working Together in Your School

Successes?

Challenges?

Solutions?

Principals indicating that pupil, family, school and community obstacles to achievement were 'a major problem' for their school

- Poor achievement of incoming pupils – 47.1%

- Unemployment in the community – 85.7%

- Lack of parental involvement – 58%

- Emotional and behavioural problems – 56.5%

- Ongoing pupil absenteeism – 28.7%

- Affects of dysfunction among pupils families – 51.1%

A REPORT ON THE EVALUATION OF DEIS AT SECOND LEVEL

ERC 2014

www.pdst.ie

PDST

Think . . . Pair . . . Share . . .

What does disadvantage in terms of numeracy development mean?

PDST
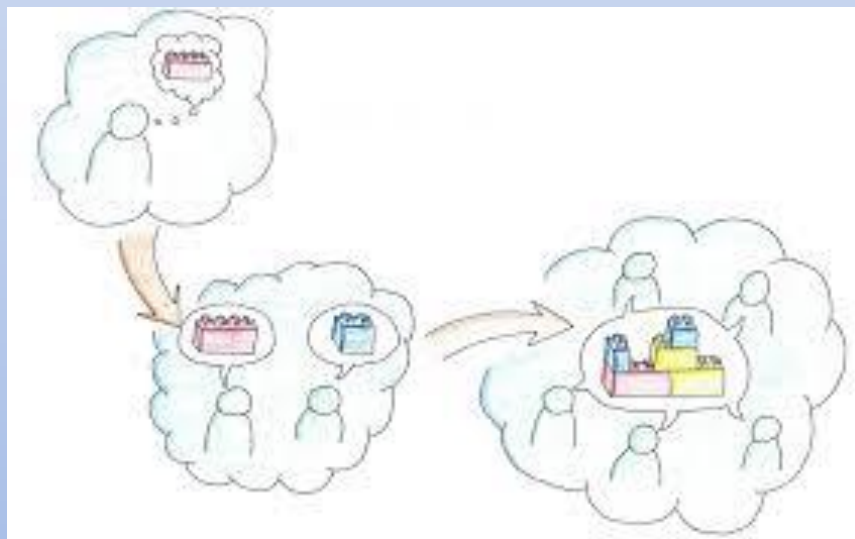
DEIS Evaluations 2013 – Inspectorates Findings Numeracy

34% had good target setting practices

27% had good practice in the implementation of strategies

18% had good practice in the measurement of the impact and progress of strategies

In all areas weaknesses significantly outweighed strengths.

1 in 8 students were unsure of their progress in maths

Major "misapprehension that needs to be checked and corrected is the over – identification of numeracy with mathematics as a subject"

PDST

Positives . . .

Clear target setting relating to increasing by specific percentage, the number of students taking mathematics at <u>ordinary instead of foundation level</u>. Schools were commended for supporting this target through more flexible teacher deployment and class formation.

Efforts to <u>extend numeracy beyond the "maths space"</u> were noted with good practices being in place in the efforts to create a numeracy rich environment

Where good practice was observed it reflected <u>strategic use of available data</u>

PDST

Areas for Improvement . . .

Found the problem is "too little done" rather than "the wrong things done" and the development of numeracy skills need to have a higher profile

Broad approach to the development of numeracy is needed

PDST

DEIS Planning . . .

Identify priority

Targets

Actions

Gather data

Analyse data and draw conclusions

Implement and monitor

Evaluate

PDST

Numeracy Data – what to gather

Primary Transfer Data

Sten scores Lit & Num	English

Post Primary Entrance Test

CAT Verbal	Standardised Tests Numeracy	Maths Competency Test

Qualitative Data/ on transfer

HSCL	SCP	SEN	NBSS

Attitudinal Data

Literacy	Student engagement	Parental voice	Student voice

Teaching & Learning

Attainment in State Exams	Student Engagement in Learning	Teaching Approaches

Skills Analysis From Primary Report

Maths

- Understanding and Recalling

- Using Procedures

- Reasoning and Problem Solving

- Explaining and Communicating

English

- Listening Comprehension

- Oral Expression

- Reading

- Written Expression

PDST

Everyone's Voice Matters

Who

Students

Parents

Teachers

Management

How

- Surveys
- Focus Groups
- Questionnaires
- Checklists
- Photographic Evidence
- Student Work
- Teacher Professional Opinion

PDST

Make Haste Slowly . . .

- **Take time** to draw conclusions about evidence gathered
- **Take time** to see how the evidence gathered fits against the **Teaching and Learning Quality Framework**
- **Benchmark** – to gauge how your school's teaching and learning fits against measures of best practice
- **Based on results** identify areas of improvement
- Write targets and actions
- **All targets in your DEIS plan focus on learner outcomes and classroom practices**

PDST

Analysing the Evidence

- How have you analysed data in the past?

- Who has traditionally carried out this work?

- What would you change going forward?

PDST

Target Setting

- There must be a rationale for all targets set – targets can't be set in a vacuum must be based on analysis of Baseline Data . This data should be triangulated if possible

- SMART Targets

- Separate Targets and Actions

Formula & Language of Targets

Verb	Thing affected	From (baseline)	Level intended	By (date)

To increase	To raise	To expand	To meet
To decrease	**To reduce**	**To cut**	**To complete**

An example

To increase   the percentage of pupils taking higher level   **(thing affected)**
from 60% **(baseline)** to 65% **(level intended)** by the end of year 1   70% by the
end of year 2 and 75% by the end of year 3.

Create Actions

Department level

Classroom level

Whole school level
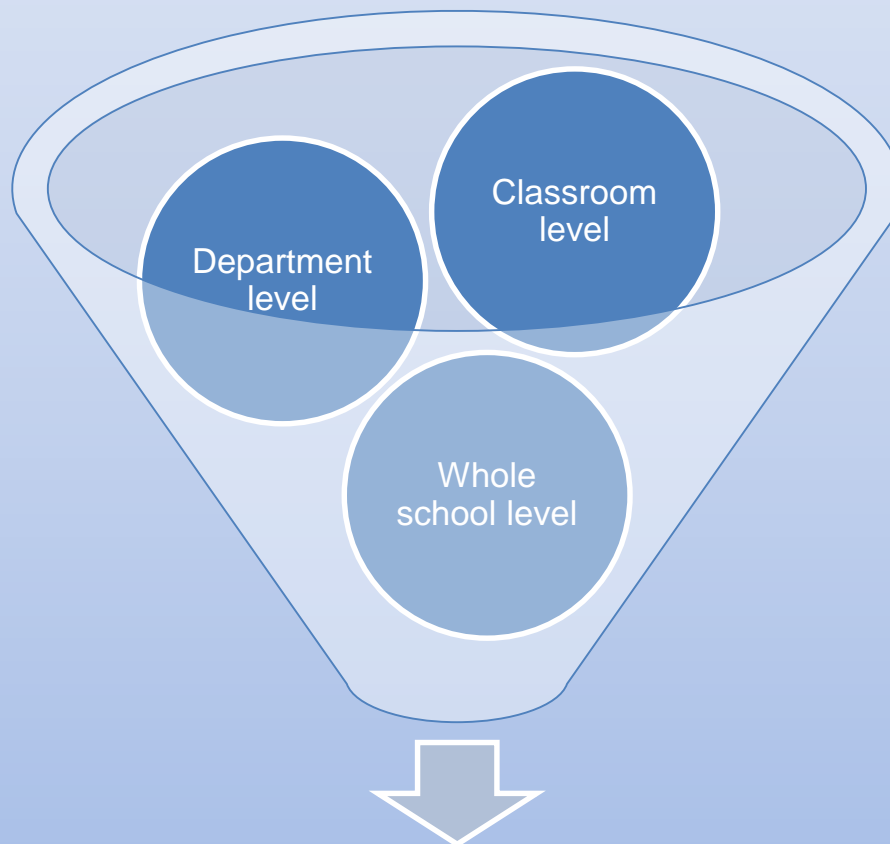
Improvement in Student Numeracy outcomes

PDST

Why Monitor?

What do we monitor?

PDST

Schools Should Decide . . .

- What will be monitored?

- Who is responsible?

- How will progress be determined and reported?

- When and to whom progress will be reported?

- If targets and actions are realistic or need to be changed

PDST

Looking At Action Planning for Improvement In DEIS Post Primary Schools 2015 (Numeracy)

School Doing Well:
- Selecting whole school interventions and using resources to extend numerical understanding
- Selecting whole school approaches to teaching and learning to support development of students' numeracy skills

Schools to do Better:
- Sharpen literacy and numeracy focus in subject planning
- Use of active learning methodologies
- Use of AFL strategies
- Address implementation gap
- Set SMART targets

NB

Collaborative planning
Strong support from management
Improved co-ordination systems

PDST

Reflection

Is DEIS planning on the agenda?

Where are we currently with numeracy?

Is there a whole school approach to numeracy development?

Are numeracy targets in place?

Are numeracy strategies being monitored?

What have we found out?

Think . . . Pair . . . Share . . .

What numeracy strategies/activities/initiatives are working well in your school?

PDST
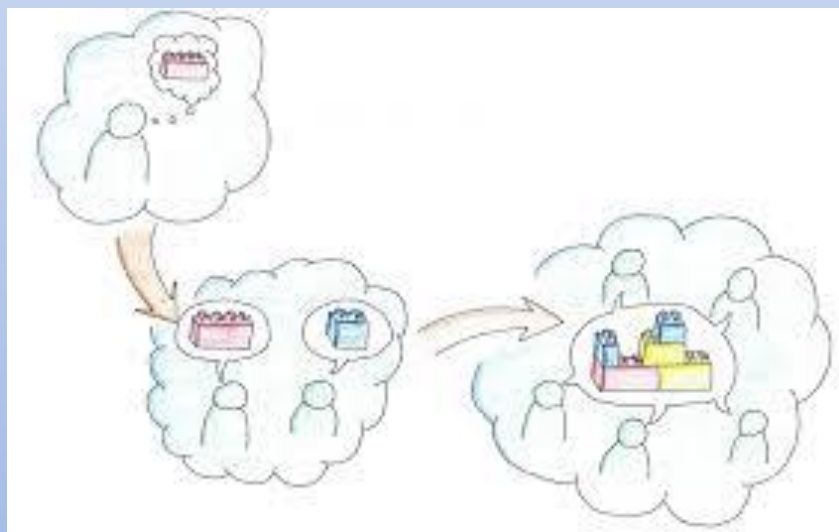
Popular Numeracy Initiative Examples

Paired Maths	Maths Laboratory	Maths Games
Flashmaster Maths / Gaming Devices	General Numeracy	Number Millionaire
	DEAS	

PDST

Any Questions?

PDST

Coffee!

PDST

Sharing of Practice

Eadaoin Quinn

Lorraine Counihane

Louise Kenny

PDST

How do we choose which area of numeracy to focus on?

PDST

Active Learning Methodologies to Support Whole School Numeracy Development . . .

PDST

Placemat

Use sentence starters like: We thought, We agreed, We feel, Our ideas were………

Share as a group and write the ideas that are common/ you all agree on in this middle section

Common Elements

PDST

Group Activity: Place Mat

PDST
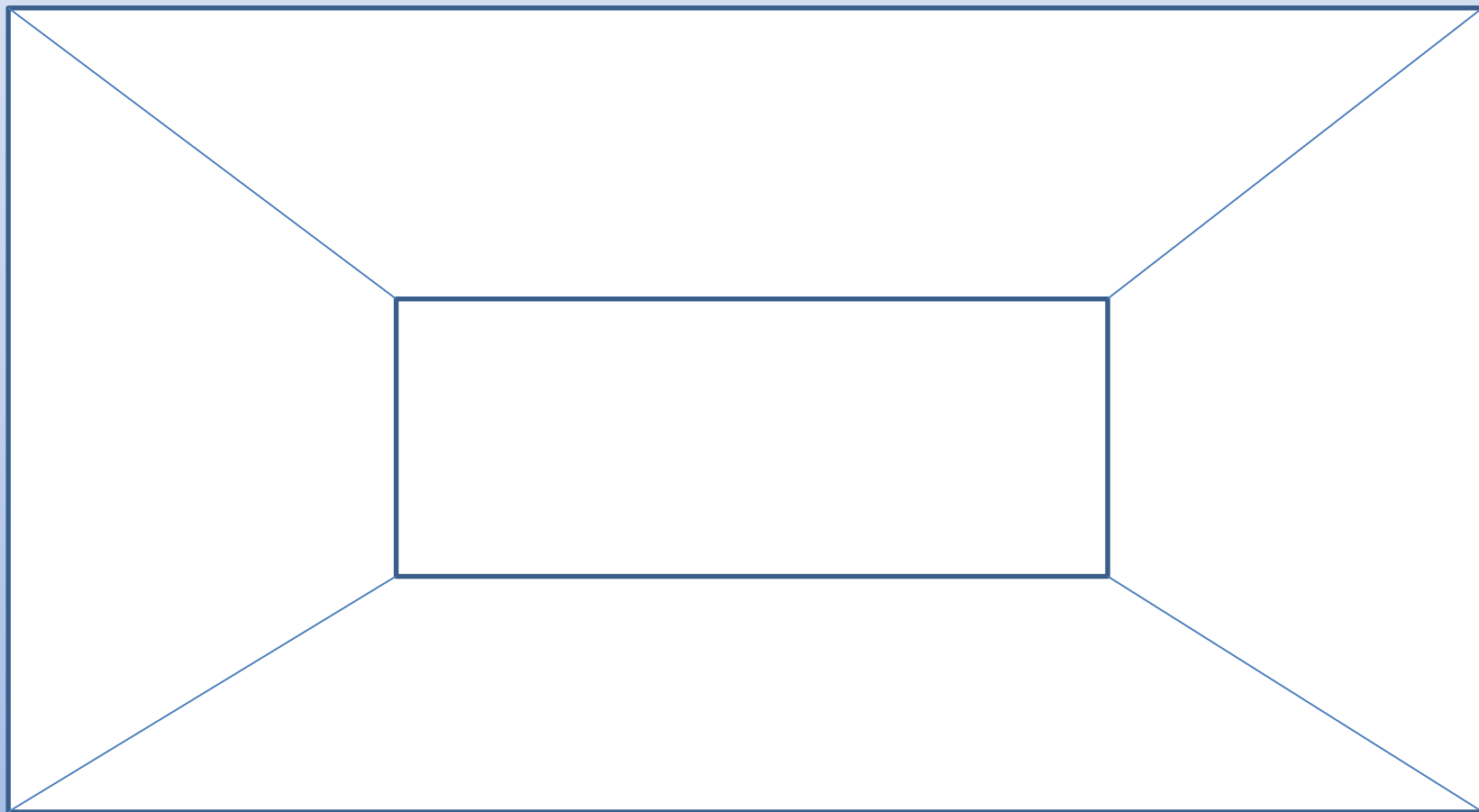
Four Step Review: Place Mat

- Useful for correction of homework or tests

- Also good for review of a new topic

- Method:

  1. Students write the answer individually

  2. The group members agree on a answer

  3. The teacher gives the answers

  4. Groups check how they did

PDST

Graphic Organisers

- Visual method of organising and summarising information
- High quality teaching and learning methodology for mixed ability classrooms
- Supports learning styles or intelligences
- May be used for:
    - Pre-teaching/introduce a topic
    - Teaching a topic
    - Assessment for learning
    - Studying
    - Revision of a topic
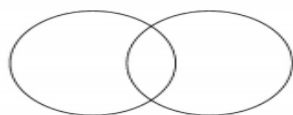
Graphic Organisers

Ranking Ladder
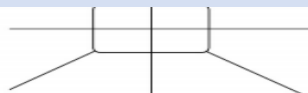
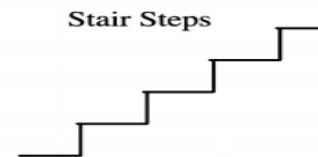Four Corner Organiser
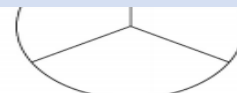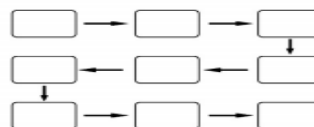
Brain Droplets
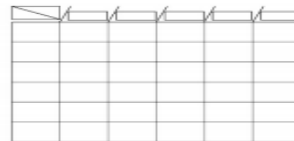
Cross Classification Chart

Funnel

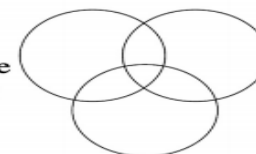Double Venn

Sequence Chart
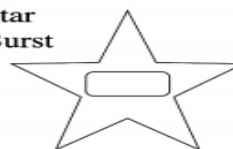
Stair Steps

Fish Bone

Chain of linked events

Triple Venn

Research Grid

Star Burst

PDST

Reflecting On My Learning Poster

Bloom's Taxonomy in Practice

1. Knowledge	2. Comprehension	3. Application
Identify	Explain	Apply
Name/label	Interpret	Calculate/solve
Define	Predict	Choose/select
Describe	Compare	Determine
Match	Contrast	Illustrate
Recite	Characterise	Organise
State (5w's)	Conclude	Present

PDST

Bloom's Taxonomy in Practice

4. Analysis	5. Synthesis	6. Evaluation
Analyse	Imagine	Consider
Distinguish	Create/compose	Debate
Explain	Compile	Critique
Observe	Judge	Determine
Compare/contrast	Elaborate	Evaluate
Investigate	Formulate	Recommend
Observe	Integrate	Support/prove

PDST

Lunch!

PDST
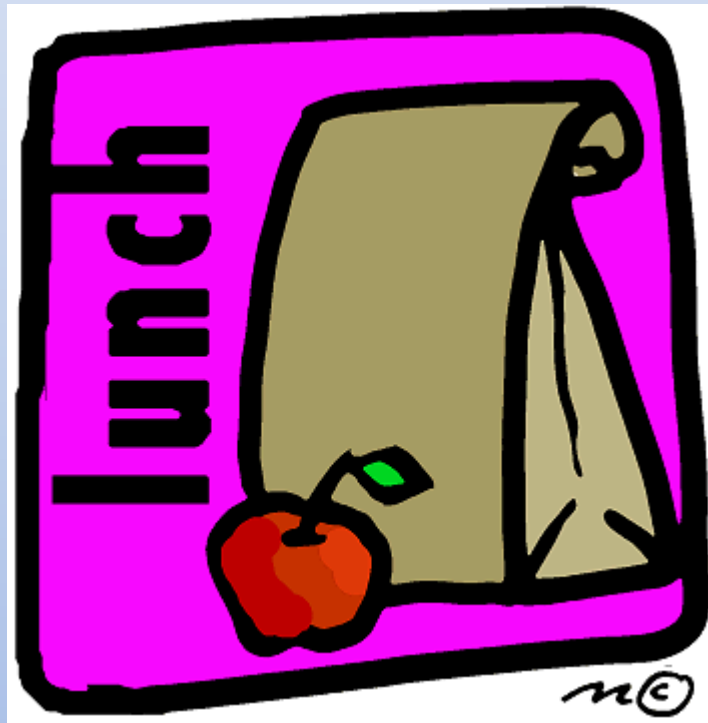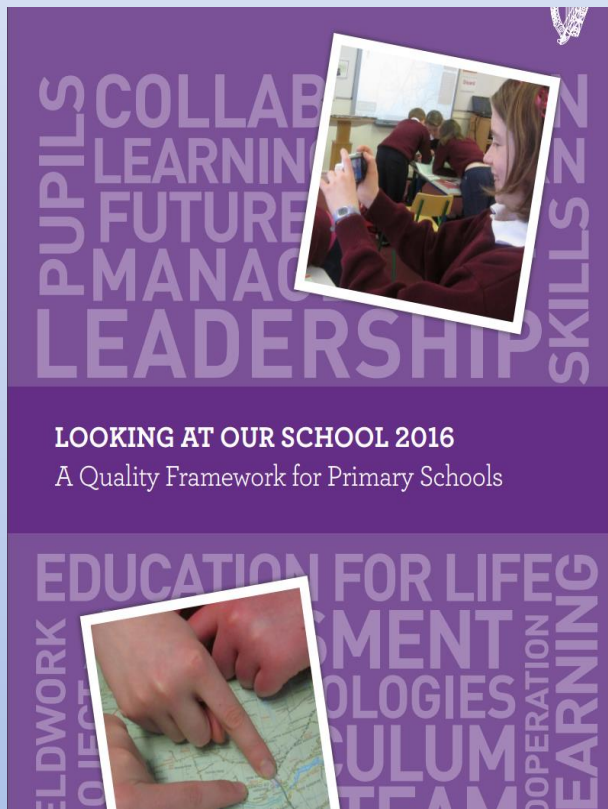
Quality framework and SSE 2016-2020

Circular 0040/2016

LOOKING AT OUR SCHOOL 2016
A Quality Framework for Primary Schools

www.pdst.ie

PDST

The 6-Step Process

- Identify Focus
- Gather Evidence
- Analyse and Make Judgements
- Write and Share Report and Improvement Plan
- Put Improvement Plan into Action
- Monitor Actions and Evaluate Impact
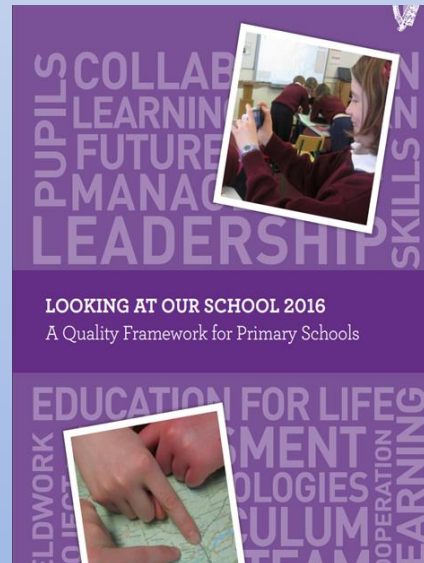
PDST

Looking at Our School 2016

A quality framework for schools

A set of standards for schools

Quality Framework:

- Has **two** dimensions
    - Teaching and Learning (focus 2016-2020)
    - Leadership and Management
- Each dimension is subdivided into domains….

PDST

Each Dimension has Four Domains

- Teaching and Learning

1. Learner Outcomes
2. Learner Experiences
3. Teacher's individual practice
4. Teacher's Collegial/

Collaborative Practice

- Leadership and Management

1. Leading Learning and Teaching
2. Managing the Organisation
3. Leading School Development
4. Developing Leadership Capacity

PDST

Domain and Standards

Learner Outcomes

Attitudes to learning

Understanding of themselves and others

Acquisition of curriculum knowledge & skills

Levels of attainment

Learner Experiences

Levels of engagement as learners

Growth as learners

Self-reflection & ownership as learners

Development as lifelong learners

Teacher's Individual Practice

Teacher's knowledge and skills

Use of practice that progress students learning

Use of appropriate teaching approaches

Responsiveness to individual learning needs

Teacher's Collective/Collaborative Practice

Teacher's professional development and collaboration

Co-operation to extend student's learning opportunities

Collective use of assessment practices

Sharing of expertise to build capacity

PDST

Step 1

- Identify the Focus (3)

PDST

Step 2: Gather Evidence (4 and 5)

1. Assessment data and student's progress
2. Teacher's views and records – evidence
3. Voice and opinions of students and parents
4. Professional reflection, professional collaboration and dialogue between teachers – effective means of gathering evidence

PDST

Step 3: Analyse and Make Judgements (4)

- Evaluate effectiveness of current practice (p.15-21)

  – "statements of effective practice"

  and

  – "statements of highly effective practice"

  Schools build on existing strengths and work towards excellence

PDST

Step 4: Write and Share
Report and Improvement Plan (6)

Single document (3 pages) – report and improvement plan (once annually)

- **Report** – account of progress, new aspect of T & L chosen for SSE and priority areas
- **IP** – targets, actions, who will undertake actions, who will monitor, how parents can help, timeframe for achievement

Share summary of both with whole school community
Template on www.schoolself-evaluation.ie

Step 5: Put Improvement Plan into Action

- Key step in process

- When the actions in the improvement plan are implemented the work of the school can improve

- Actions become part of the normal T&L process

Ownership of Actions

- Teacher
- Subject Department
- Whole School level

PDST

Step 6: Monitor Actions and Evaluate Impact

- Schools will need to decide:
1. How monitoring will occur?
2. Who is responsible for monitoring?
3. How progress will be determined and reported?
4. When and to whom progress will be reported?
5. If targets and actions are realistic or need to be changed ?

PDST

Step 6 Continued . . . .

- To evaluate, monitoring must of taken place

- Leads to a number of questions:

1. Has practice changed in the classrooms?

2. What are teacher's experiences of the agreed changes?

3. What are students experiences of the agreed changes?

PDST

Standards and statements of quality

Standards	Statements of effective practice	Statements of highly effective practice
Students engage purposefully in meaningful learning activities	Students demonstrate high levels of interest and participation in learning. They are able to work both independently and collaboratively in a purposeful manner. They understand and can explain the purpose of the learning tasks they are engaged in. They are able to report on, present, and explain the process and outcome of learning activities to a competent level.	Students demonstrate very high levels of interest and participation in learning. They are able to work both independently and collaboratively in a very purposeful and productive manner. They understand and can explain the purpose of the learning tasks they are engaged in, and can extend and develop the activity meaningfully. They are able to report on, present, and explain the process and outcome of learning activities to a highly competent level.

PDST

SSE Circulars: Key issues addressed

- Avoid duplication: SSE and school development planning are NOT different processes
- School self-evaluation contributes to the process of school development planning
- **SSE incorporates DEIS action planning – in a DEIS school the School Improvement plan is the DEIS action plan**
- Special schools also engage in SSE with topics and issues of relevance to teaching and learning in their context

PDST

SSE Circulars: Key issues addressed

- No required subjects or curricular areas
- Each school to focus on between two and four areas/aspects of teaching and learning within their own context and that the school believes require improvement over the next four years
- While school is free to choose any issues within teaching and learning for SSE, it is suggested that SSE should be used to implement curricular changes

    e.g. Junior Cycle implementation

PDST

SSE Circulars: Key issues addressed

- Maintain focus on teaching and learning

- Want to embed the practice of schools reflecting upon and improving their teaching and learning

- Build on what they have done in literacy and numeracy in the first cycle of SSE

PDST

Activity . . . .

- Use the data given to formulate a draft DEIS plan for numeracy . . .
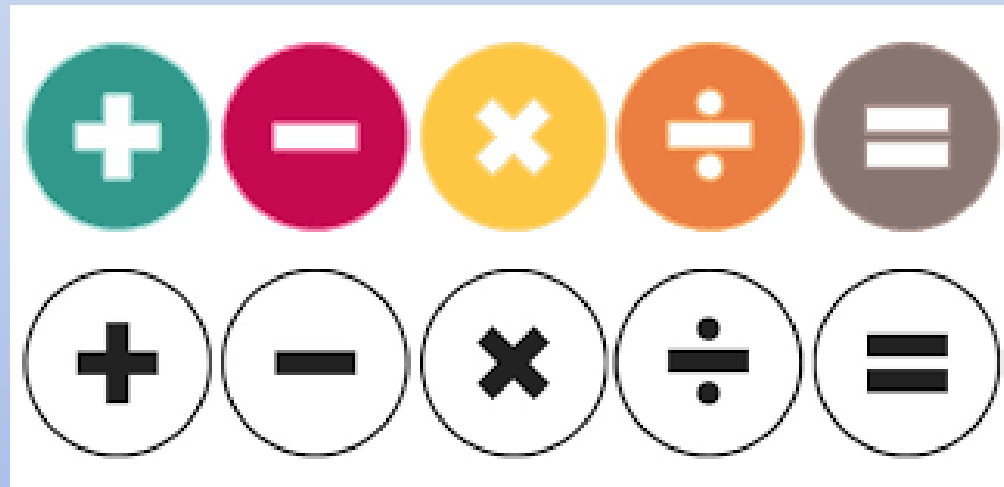
Where to next?

PDST

Useful websites

- www.jcsp.ie
- www.pdst.ie (numeracy)
- www.schoolself-evaluation.ie
- www.juniorcycle.ie

PDST

Supporting Teaching and Learning

Thank You