

ASSESSMENT IN THE PRIMARY SCHOOL CURRICULUM

Guidelines for Schools

Contents

Introduction		03
Section 1	Re-envisioning assessment	06
	What is the purpose of assessment in the <i>Primary School Curriculum</i> ?	07
	What does assessment involve?	07
	How has assessment developed since the publication of the <i>Primary School Curriculum</i> ?	08
Section 2	Classroom assessment methods	12
	Self-assessment	14
	Conferencing	24
	Portfolio assessment	30
	Concept mapping	36
	Questioning	42
	Teacher observation	46
	Teacher-designed tasks and tests	54
	Standardised testing	60
Section 3	A closer look at AfL and AoL	70
	Gathering assessment information	70
	Recording assessment information	70
	Interpreting assessment information	71
	Using assessment information	71
	Reporting assessment information	71
Section 4	School policy on assessment	76
	Content of the assessment policy	77
	Why should children's learning be assessed?	77
	What should be assessed?	77
	When should children's learning be assessed?	77
	How should children's learning be assessed?	78
	Where should assessment information be recorded?	79
	How should assessment information be recorded?	79
	With whom should assessment information be shared?	80
	How should assessment information be shared with others?	80
	For how long should assessment information be stored?	80
Appendices	Appendix A	
	Further information on classroom assessment methods	84
	Appendix B	
	Photocopiable resources	91
	Appendix C	
	Legislative requirements of schools in relation to assessment policy	95
	Appendix D	
	Roles of external organisations in supporting children's learning	97
Bibliography		99

Introduction

This document, *Assessment in the Primary School Curriculum: Guidelines for Schools*, has been developed to support teachers' knowledge and understanding of assessment, and to assist schools in developing and implementing an assessment policy. The guidelines provide examples of how teachers gather information about children's progress and achievement, use this information to enrich teaching and learning, and report this information to all those concerned with children's education.

The document contains four sections. Section 1, *Re-envisioning assessment*, presents two approaches to assessment—assessment for learning (AfL) and assessment of learning (AoL). These approaches build on the four purposes of assessment outlined in the *Primary School Curriculum* (1999) - formative, summative, evaluative and diagnostic. The section briefly describes AfL and AoL with further detail provided in Section 3.

Section 2, *Classroom assessment methods*, outlines a range of methods teachers use in assessing children's learning. Descriptions of how teachers use these methods to support children's learning, and their own teaching, are also included.

Section 3, *A closer look at AfL and AoL*, compares and contrasts the two approaches to assessment. It uses five assessment activities—gathering, recording, interpreting, using, and reporting—to show what the two approaches look like in practice.

Section 4, *School policy on assessment*, provides advice on developing the school's assessment policy. It highlights the legislative requirements for recording and reporting information about children's progress and achievement.

Appendix A presents further information on classroom assessment methods to supplement Section 2 with photocopiable resources for some of these methods contained in Appendix B. Appendix C outlines legislative requirements that affect schools in relation to assessment policy. Appendix D summarises the roles of various organisations in supporting children's learning.



A young boy with light brown hair, wearing a light blue polo shirt, is shown from the chest up. He is pointing his right arm towards a dense, green forest. The background is filled with lush green leaves and branches, creating a natural, outdoor setting. The lighting is bright, suggesting a sunny day.

SECTION 1

RE-ENVISIONING ASSESSMENT

Section 1

Re-envisioning assessment

Sample activity 1

Assessment in action

Curriculum area/Subject	Mathematics
Strand	Measures
Strand unit	Length
Curriculum objective	The child should be enabled to estimate, compare, measure and record length using non-standard units.
Class level	First and second classes
Strand	Number
Strand unit	Operations—Addition
Curriculum objective	The child should be enabled to add numbers without and with renaming within 99.
Class level	First and second classes

Ms. Coffey organises her twenty-six first and second class children into four groups—three groups of five children in second class and one larger group of eleven children in first class. Building on practical work over the previous days to add numbers with and without renaming within 99, Ms. Coffey presents each group of second class children with a series of number problems and a basket of resources (lollipop sticks, unifix cubes, stick-a-bricks, and number strips). The children work together solving the problems.

Meanwhile, Ms. Coffey works with the first class children to develop their skills in measuring length using non-standard units. After discussing why knowledge of length is important, and linking this to everyday activities, she demonstrates measuring the length of a book using matchboxes, the length of a desk using paintbrushes, and the length of the classroom using footsteps. Ms. Coffey invites the children to work in pairs (with one group of three children) to measure the length of objects including their maths copybooks, schoolbags, their arm-spans, and the class library. During these activities she observes the children at work and talks to them about their findings. She reminds the children about important strategies when measuring, for example placing the measuring units end-to-end, positioning the first unit at the edge of the object being measured, and pointing to the measuring units as they count them.

When the children have completed their measuring tasks, Ms. Coffey invites them to share their findings as a group. Providing feedback through discussion, she helps them to explore reasons for significant differences in their findings. These arise mainly from the children not placing the measuring units end-to-end while a few are caused by counting errors. Noting that a number of the children require more experience in measuring accurately, Ms. Coffey plans to provide similar tasks the following day.

This account of one teacher's classroom practice shows how, as the *Primary School Curriculum* suggests, *assessment is integral to all areas of the curriculum and it encompasses the diverse aspects of learning* (*Primary School Curriculum, Introduction*, p. 18). In this example, the assessment process provides the teacher with the information she needs in order to make important decisions about the teaching and learning process—selecting curriculum objectives, identifying appropriate teaching methodologies, designing learning activities, choosing suitable resources, differentiating learning, and giving feedback to children on how well they are doing. These everyday activities place assessment at the very heart of teaching and learning.

What is the purpose of assessment in the Primary School Curriculum?

Assessment is about building a picture over time of a child's progress and/or achievement in learning across the *Primary School Curriculum*. Information about **how** the child learns (the learning process) as well as **what** the child learns (the products of learning) shapes the picture. The teacher uses this information to identify and celebrate the child's current learning, and to provide him/her with appropriate support for future learning.

What does assessment involve?

For the teacher, assessment involves gathering information to understand better how each child is progressing at school and using that information to further the child's learning. Assessment, therefore, goes far beyond just testing. It concerns the daily interactions between the teacher and each child that include moment-by-moment conversations, observations and actions.

Assessment is the process of **gathering, recording, interpreting, using, and reporting** information about a child's progress and achievement in developing knowledge, skills and attitudes.

Whether the teacher is questioning and listening to children, observing children working on a task, or using the results of a weekly test to inform teaching and learning, assessment involves many overlapping and often simultaneous activities—gathering, recording, interpreting, using, and reporting information. These activities can happen within a few seconds or, in contrast, over a period of days or weeks depending on the purpose of the assessment and the methods used. The information gathered enriches the teacher's understanding both of what and how the child learns. The teacher uses that information to plan learning experiences based on appropriate objectives from the curriculum, and on the child's previous learning: *Through assessment the teacher constructs a comprehensive picture of the short-term and long-term needs of the child and plans future work accordingly* (*Primary School Curriculum, Introduction*, p. 17). Using assessment information in these ways, the teacher supports and extends the child's learning.

Assessment is, therefore, part of what the teacher does on a daily basis in his/her classroom, as shown in Figure 1.

Figure 1: Assessment as part of classroom practice



How has assessment developed since the publication of the Primary School Curriculum?

The *Primary School Curriculum* emphasises, in general terms, the importance of assessment in enabling the teacher to extend and enrich children’s learning across all curriculum areas. In recent years, research, theory and practice in teaching and learning have highlighted more specifically **how** the teacher can use assessment to make learning more enjoyable, more motivating, and more successful for each child. Drawing on these developments, these guidelines describe a *re-envisioning of assessment* in the primary school and provide the teacher with information and examples to show how assessment can translate into daily practice in the classroom.

The curriculum describes assessment as having four functions—formative, summative, evaluative and diagnostic. In re-envisioning assessment in the primary school, these guidelines build on these functions, and focus on two principal approaches to assessment:

- Assessment for Learning (AfL)
- Assessment of Learning (AoL).

These interrelated and complementary approaches emphasise two aspects of assessment that are central to the teacher’s work:

- The teacher uses evidence on an ongoing basis to inform teaching and learning (AfL).
- The teacher periodically records children’s progress and achievement for the purpose of reporting to parents¹, teachers and other relevant persons (AoL).

¹ Throughout these guidelines, the term *parents* refers to the child’s primary caregivers and educators. These include the child’s father and mother and/or guardians.

Assessment for Learning (AfL)

The concept of assessment for learning (AfL) extends the potential of formative assessment. It emphasises the child's active role in his/her own learning, in that the teacher and child agree what the outcomes of the learning should be and the criteria for judging to what extent the outcomes have been achieved. In essence, AfL helps teachers and children to focus on three key questions:

- **where are children now** in their learning?
- **where are children going** in their learning?
- **how** will children get to the **next point** in their learning?

Providing feedback to children is therefore central to AfL. This feedback is based on evidence of how and what the children are learning. Feedback focused on the learning or task in hand, can help children identify and celebrate their progress and achievements, pinpoint challenges they experience, and decide what the next steps should be. This level of involvement in shaping their own learning can heighten children's awareness of themselves as learners and encourage them to take more personal responsibility for, and pride in, their learning.

AfL does not generally happen at the end of a particular piece of work or a period of time. It usually takes place in the day-to-day minute-by-minute interactions between teachers and children. Everything children do, say and make—asking questions, working on a project or a task alone or collaboratively, playing, designing or making a model, and so on—has the potential of providing the teacher and the children themselves with information about what they do and don't understand and what they can and cannot do. Using AfL, the teacher interprets this information and uses it to support children in their work and to plan ahead. In this way, the teacher can integrate AfL into teacher-child interactions and children can come to regard it a natural part of how they learn in school.

The teacher can also use information from AfL to evaluate his/her teaching. Based on information gathered from children, the teacher can make changes to his/her planning, organisational strategies, and teaching methodologies in order to make learning more successful for the children.

Assessment of Learning (AoL)

In contrast, assessment of learning (AoL) focuses more on medium- and long-term assessment. AoL generally involves assessing a child's learning at the end of a given period, such as the end of a unit of work, a week, a term, or a year. The emphasis in AoL is on measuring a child's cumulative progress towards curriculum objectives. A grade or a score is often the only feedback a child receives. While these results are useful to the teacher they can be of limited value to the child, unless the teacher identifies the essential information they provide about the child's progress and achievement and communicates this to the child. AoL also helps the teacher to plan future work, to set new targets, and to provide feedback and information for end-of-year assessment.

The teacher uses information from AoL for reporting, particularly to parents and other teachers. The Department of Education and Science (DES) inspector may access assessment records to ascertain literacy and numeracy standards, and/or to assess progress in curriculum implementation as part of the Whole School Evaluation process. The National Educational Psychological Service (NEPS) psychologist may also access the information gathered through AoL in order to work with schools in meeting the learning needs of individual children.

Section 3 of these guidelines presents **AfL** and **AoL** in more detail and highlights the acronyms in bold to help distinguish between the two. It compares and contrasts the two approaches using the five activities in the assessment process: gathering, recording, interpreting, using, and reporting information about a child's progress and achievement.



A young child with dark skin and short hair is sitting on a large, bright yellow ball in a grassy field. The child is wearing a light blue, patterned, long-sleeved outfit and dark boots with red and white checkered socks. The background consists of dense green trees. The text 'SECTION 2' is written in blue, bold, sans-serif font on a white, tilted rectangular background in the upper right corner.

SECTION 2

**CLASSROOM
ASSESSMENT
METHODS**

Section 2

Classroom

Assessment Methods

This section introduces a variety of methods for gathering and using information about how well children are learning across the curriculum. The methods range from observation and questioning as part of daily teaching and learning to the more formal and structured method, standardised testing. By using a combination of methods over time, the teacher gathers evidence of children's progress and achievement. Based on this evidence, he/she plans how future learning can be supported most effectively.

Not everything a child learns can be assessed or needs to be assessed. In partnership with colleagues, the teacher can use the *Primary School Curriculum* to prioritise what the child should be enabled to do and understand in terms of knowledge, skills, values, attitudes, and dispositions. He/she will sometimes focus on the child's learning in a particular subject but at other times look at the child's learning across different subjects. Having decided **what** is to be assessed, the teacher considers **how** it will be assessed and **how** the assessment information will be used.

Much of the teacher's assessment is done intuitively while some is planned for particular purposes. Intuitive assessment and planned assessment are complementary and both are necessary if the teacher is to gain a comprehensive picture of each child's progress and achievement. For example, in helping a group of senior infants to draft a story about their visit to the nearby park, the teacher notices that one child forms an 'a' incorrectly and that another child does likewise with a 'c' and a 'd'. This can prompt the teacher to plan some focused observation with these two children over the following few days. Through focused observations the teacher can identify the need to support one of the children in forming the 'c, o, a, d and p' family of letters. By interpreting much of the information children share through their words, their silences, their actions, and their interactions the teacher can balance intuitive and planned assessment in order to benefit each child as a learner.

This section supports the classroom teacher in answering the questions:

- How will I **assess**?
- How will I **use the information I gather**?

It provides information on eight assessment methods and shows how these methods can be used for AfL and AoL. (See Sections 1 and 3.) The methods are self-assessment, conferencing, portfolio assessment, concept mapping, questioning, teacher observation, teacher-designed tasks and tests, and standardised testing.

While there are many more assessment methods that teachers can and do use, the guidelines use these eight to demonstrate the diversity of assessment methods and the benefits that can accrue from using a combination of methods. No one assessment method, of itself, will provide sufficiently useful information to the teacher. Indeed any one method usually involves using other methods to a greater or lesser extent, for example a teacher-designed task may also involve questioning and observing children.

In these guidelines, each method is described in response to questions such as the following:

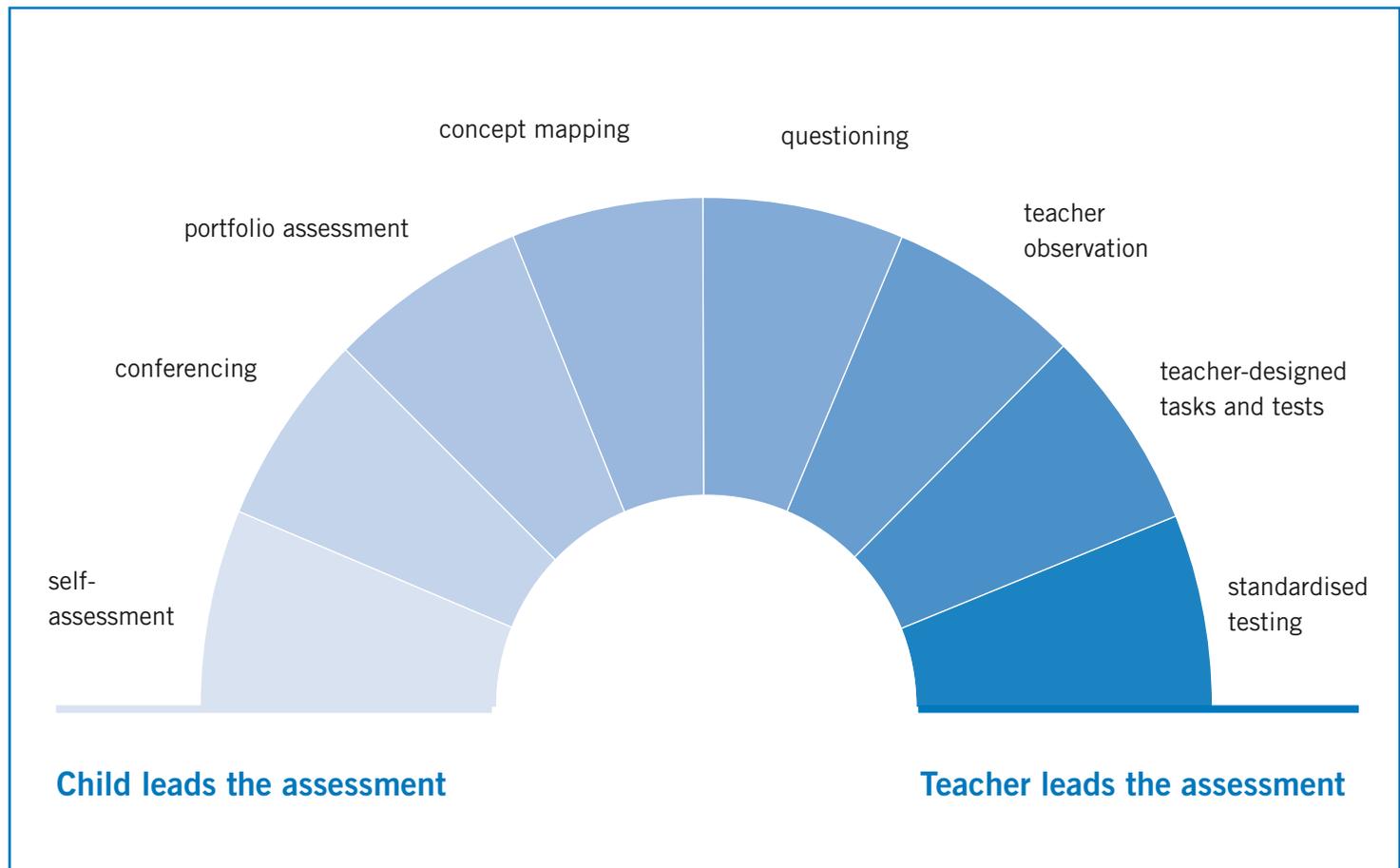
- **What is the purpose of this assessment method?**
- **How is the method used?**
- **What information is recorded?**
- **How is this information used?**

The methods are illustrated by examples from practice. These examples, referred to as **sample activities**, help to show how the methods operate in actual classrooms. The sample activities focus on particular subjects or areas of the curriculum and on particular class levels. However, many of the methods can be used with other subjects or curriculum areas and can be adapted to other class levels.² The sample activities begin with an outline of the relevant curriculum area, subject, strand, strand unit, curriculum objective(s), and class level(s) in the *Primary School Curriculum*, which can be downloaded from or viewed at <http://www.curriculumonline.ie>. In the case of sample activities which focus on English, a '/' sign is used to present the relevant strand(s) and strand units(s). This strategy takes account of *English: Additional Support Material* published in 2005.

The eight assessment methods are presented on a continuum in Figure 2. Methods positioned towards the left are those in which the child plays a leading role in assessing his/her own work; towards the right of the continuum the teacher plays a greater role in leading the assessment. While no single assessment method is exclusive to AfL or AoL, those towards the left of the continuum (the child in a leading role) generally have a stronger AfL focus while those to the right generally have a stronger AoL focus.

² In the case of some of the sample activities, teachers are referred to using first names while in other sample activities they are referred to using their last name. This reflects the variety of practice across primary schools in Ireland.

Figure 2: A continuum of assessment methods



The discussion of assessment methods in this section follows the order shown in Figure 2. Each method is presented as a fold-out from the main document.

- Self-assessment page 14
- Conferencing page 24
- Portfolio assessment page 30
- Concept mapping page 36
- Questioning page 42
- Teacher observation page 46
- Teacher-designed tasks and tests page 54
- Standardised testing page 60.

Self-assessment

What is self-assessment?

Children are involved in self-assessment when they look at their own work in a reflective way, identify aspects of it that are good and that could be improved, and then set personal learning targets for themselves.

Self-assessment involves metacognition—the process of being aware of and reflecting on one’s own learning. Self-assessment skills include effective questioning, reflection, problem-solving, comparative analysis, and the ability to share thoughts in a variety of ways. Self-assessment can be used by children of all ability levels and in all areas of learning. In age-appropriate ways, it can be used throughout the primary school and across subjects. Whole class discussions, group situations or one-to-one conferencing are all platforms for self-assessment.

In looking at examples of self-assessment across the curriculum, the child can use self-assessment skills in drafting, revising, editing and publishing a piece of his/her own writing. He/she can use the skills in choosing the best samples of his/her work to include in a portfolio for Social, Environmental and Scientific Education (SESE), Social, Personal and Health Education (SPHE) or Arts Education. (See Section 2, pp. 30-33 for more information on portfolio assessment.) Self-assessment can also play a critical role in creating, talking about, and recording musical compositions. Keeping a portfolio as a personal record of progress and reviewing its contents encourages the child in self-assessment by helping him/her to clarify objectives and set new learning targets. It can be used to foster reflection, both verbal and non-verbal, and higher-level thinking skills. A learning log can be used to document the child’s self-assessment and reflection on his/her work samples or collections.

What is its value as an assessment method?

Self-assessment is an essential part of AfL. It enables the child to take greater responsibility for his/her own learning. The child can use different strategies when thinking about what he/she has learned and use a set of criteria to make judgements about it. The most successful criteria are those that are agreed beforehand by the teacher and the class. Self-assessment helps the child to recognise the next steps in his/her learning and to become more independent and motivated. As the child develops self-confidence he/she can feel more secure about not always being right. In this way, self-assessment contributes to a positive classroom climate in which making mistakes is considered central to the learning process. The results of the child’s self-assessment (for example, learning logs, portfolios, pieces of writing) can be shared with his/her parents during parent/teacher meetings. This can give parents more information about the child’s learning from the child’s own perspective.

How is self-assessment used?

The skills of self-assessment need to be learned over time. This involves a long-term, continuing process that is planned at class and school level. The skills the child needs can be taught or modelled by the teacher and practised by the child until he/she feels comfortable using them independently.

The teacher can encourage the child to think about his/her own work using guiding questions, tools or aids. These include, for example, rubrics, *Know, Want to know, Learned* (KWL) grids, *Plus, Minus and Interesting* (PMI) diagrams, ladders, traffic lights, talk partners/buddies, checklists and webs. (See Appendix A, pp. 84-85 for more information on self-assessment tools.) The teacher can incorporate learning targets and success criteria into classroom discussions. The child can then learn to assess his/her work against these targets or criteria. By giving positive, informative feedback to the child the teacher can support him/her in recognising and taking the next appropriate steps in learning.



Sample activity 2.1

Using a rubric for self-assessment

Curriculum area Arts Education
Subject Visual arts
Strand Construction
Strand unit Looking and responding
Curriculum objective The child should be enabled to look at and talk about his/her work and the work of other children.
Class level Third and fourth classes

The children in Mr. Byrne’s third and fourth classes are given the task of building a model of a bridge. They have learned about many kinds of bridges over a few lessons. Mr. Byrne wants them to show that they understand the essential functions of a bridge, its construction, and its features. The children have to show the plan they have drawn of the bridge, and they have to tell why the bridge is built in this way. They can use any kind of suitable materials to make it. The teacher has discussed the important elements in planning and building this model with the class. The following rubric is used after the model is built.

A sample rubric

Feature	1	2	3
Plan	I made out a plan for my model with a few details.	I made out a plan of my model with quite a few details.	I made out a very detailed plan for my model.
Design	I didn’t show the important features of the bridge.	I showed some of the features in my model.	I showed a lot or all of the features in my model.
Materials	The materials I used to make the bridge were not suitable.	I used some suitable materials.	All the materials I used were very suitable.
Why the bridge was built like this	I didn’t explain this.	I partly explained it.	I explained it very well.
Appearance	My bridge looks OK.	My bridge looks good.	My bridge looks great.

The children complete the rubric by ticking or colouring the appropriate level of quality they judge their model to show. Differentiating according to the children’s ability, Mr. Byrne helps some children use the rubric by reading the statements and talking to the children about what they think of the quality of their bridges.

Variations on this rubric include extending the range of quality to perhaps four levels. For example, for children who have more experience of using assessment rubrics this could include familiarising the children with the expected standards or levels of quality before beginning the model work, and demonstrating what such levels would look like by showing similar work done by other children.

Sample activity 2.2

Using questions for self-assessment

Curriculum area/Subject

Mathematics

Strand

Shape and space

Strand unit

3-D shapes

Curriculum objective

The child should be enabled to explore the relationship between 2-D and 3-D shapes.

Class level

First and second classes

The school where Ray teaches is working on self-assessment with children from junior infants to sixth class. Because his first and second classes have been working on self-assessment for some time now and are comfortable with the process, Ray often encourages them to work in pairs or small groups to discuss how they feel about their learning. He sometimes works with all the children together.

At the end of a maths lesson on shape in May, he encourages the children to think and talk about their learning. He models some prompt questions for them, as follows:

Prompt questions

- Where did I get stuck?
- What did I do?
- What helped me best?
- Who did I ask?
- What new thing did I learn?

He suggests some possible answers and then gives the children two minutes to think. Working with the whole class, Ray listens to the children's responses to each question.

Ahmed (Has good mathematical ability): *I think it's hard to remember the difference between 2-D and 3-D shapes.*

Tom (Works with the learning support teacher): *Some of the names are hard to say.*

Ciara *Well, I checked the 3-D shapes in the Maths Corner for the names I couldn't remember.*

Shane *I just asked Dara.*

Marie-Claire *I learned the word cuboid.*

Anna *A cuboid is very like a cube.*

Considering the children's comments, Ray orders more books on shape for the classroom library. He also adds more computer programs on mathematics to the class software collection. He encourages the children to search the books and the programs for answers to some of their questions.

Ray pins the five self-assessment questions in large letters to the notice-board at the top of the class. Over the following weeks, he gives the class some time after each maths lesson to reflect on the questions. As the children respond, he makes sure that the more-able children are allowed time to say what they found difficult so that everyone in the class understands that anyone can experience challenges while learning and that's ok!

Sample activity 2.2 (continued)

Ray usually asks the children to give their responses orally. He sometimes asks them to write their answers but he is aware that the children's self-assessment might be reduced to what they find easy to write. Sometimes he chats with individual children about their assessment of their own work. He might mark a checklist he has already prepared. (See example below.)

Sample checklist

Date: 01.10.07 Naming 2-D shapes				
Name	square	rectangle	circle	triangle
1st Class				
Ciara	✓	✓	✓	✓
Noor	confuses square and rectangle		✓	✓
2st Class				
Juli	✓	✓	✓	✓
Pat	confuses square and rectangle		can't name	can't pronounce
Jess	✓	✓	✓	✓

The checklist helps to guide Ray's classroom planning and it helps him remember what he wants to discuss with the children's parents when they call to the school later in the year.

Sample activity 2.3

Using an evaluation sheet for self-assessment within a group

Curriculum area	Social, Environmental and Scientific Education (SESE)
Subject	Geography
Strand	Natural environments
Strand unit	Land, rivers and seas of my county
Curriculum objective	The child should be enabled to become familiar with the names and locations of some major natural features in the county.
Class level	Third and fourth classes
Strand	Natural environments
Strand unit	Physical features of Europe and the world
Curriculum objective	The child should be enabled to learn about a small number of the major natural features of Europe.
Class level	Fifth and sixth classes

Mrs. Cunningham teaches in a school in County Galway. She teaches twenty children in four class groups – third, fourth, fifth and sixth. Third and fourth classes have been learning about some of the physical features of Co. Galway. Her fifth and sixth classes have been learning about the physical features of Europe. Both groups have opportunities to use a digital projector and an interactive whiteboard to zoom in and out of features on relevant maps. The third and fourth class children enjoy zooming into an aerial photograph of their school as part of their work on their county.

To find out what the children in the different classes have learned Mrs. Cunningham sets differentiated tasks for them. The more junior classes work in groups to locate Galway Bay, Lough Corrib, the Maamturk Mountains, the Partry Mountains, the Aran Islands, Inishbofin, and four other physical features of their choice of Co. Galway on a blank map. The older children also work in groups to locate most of the features they have learned about on a blank map of Europe. The children can use the classroom computer to help with their tasks. Mrs. Cunningham asks the groups to display their work appropriately. Before the classes begin their tasks they discuss what the success criteria will be. With some help from Mrs. Cunningham, they agree on three:

Sample success criteria

- The features must be correctly placed.
- The maps must be easy to read.
- The maps must be colourful.

The classes begin working in small groups.

Sample activity 2.3 (continued)

When each group has displayed its work, Mrs. Cunningham gives the children a short time to reflect on what they have learned, how they have worked together in groups, and to what extent they have met their success criteria. She then distributes an evaluation sheet and allows the children time to complete it. She works with some of the younger and some of the less-able children. She discusses their ideas with them and helps them to record them. (See the evaluation sheet completed by Aoife.)

Sample evaluation sheet

Name: Aoife O'Sullivan. Date: 16-7-07

1. What have you been learning about in geography? True
Learn learning about Europe

2. List three things you learned about this topic. London is
on the river Thames. The Alps are the highest
mountain range in the world. The Alps are in Italy.

3. Were you a good team member? Yes

4. Give a reason for your answer. I did research on
the web while the other did different
research

5. What could your team do better the next time? We
would label the map more clearly

Teacher comments:
Well done on your project work,
 Aoife. Your team's map was
so easy to read.

Mrs. Cunningham reads all the evaluation sheets before the end of the week. On Friday morning she returns them to the children and allows them time to read her comments. While her class are doing some personal reading Mrs. Cunningham encourages children who so wish to discuss the comments with her on a one-to-one basis.

Sample activity 2.4

Using a KWL grid for self-assessment

Curriculum area/Subject	Mathematics
Strand	Number
Strand unit	Fractions
Curriculum objective	The child should be enabled to express improper fractions as mixed numbers and vice versa and position them on the number line.
Class level	Fifth and sixth classes

Iníon Uí Mhurchú teaches fifth class. There are twenty-seven children in the class. Many of the children in the class have a low ability level in mathematics. They find abstract concepts particularly challenging. One Friday morning Iníon Uí Mhurchú explains that the class will work on fractions during the following week. She revises what the class has already learned in this area. At the end of the revision session she encourages her class to fill in their KWL grids.

Some of the children's KWL grids are shown below.

Séan's KWL grid

Name: Séan

Date: Friday 14/11

Subject: Maths - Fractions

K (What I know already)	W (What I want to know)	L (What I have learned)
Fractions are smaller than one.	I want to know about improper fractions. I also know a lot about them.	

Complete at the start of the lesson

Complete at the end of the lesson

Addi's KWL grid

Name: Addi

Date: December 31

Subject: Maths - Fractions

K (What I know already)	W (What I want to know)	L (What I have learned)
Fractions are smaller than one.	I want to understand what a mixed number is.	

Complete at the start of the lesson

Complete at the end of the lesson

Iníon Uí Mhurchú reads quickly through the completed grids when planning her mathematics lessons for the following weeks. She ensures that she has included many of the items in the wanted sections of the grids, for example identifying mixed numbers in the children's environment (shoe sizes, food packaging) and exploring what they mean. During the week she encourages each child to work on the item he/she wants to know more about. Some bring in examples from home, some check computer programs, others go online to find information, while others read library books and textbooks. Some ask Iníon Uí Mhurchú or a classmate. Before Iníon Uí Mhurchú finishes the work on fractions she asks each child to complete his/her grid recording at least one thing he/she has learned.

Sample activity 2.4 (continued)

Some of the children's KWL grids are shown below.

21

Séan's KWL grid

Name: Séan

Date: November 11

Subject: Maths - Fractions

K (What I know already)	W (What I want to know)	L (What I have learned)
Fractions are smaller than one	I want to know about improper fractions. I know a bit about them.	I learned that some fractions are bigger than one & it is bigger than one. It is an improper fraction.
Completed at the start of the lesson		Completed at the end of the lesson

Addi's KWL grid

Name: Addi

Date: November 11th

Subject: Maths - Fractions

K (What I know already)	W (What I want to know)	L (What I have learned)
Fractions are added up to one.	How do you find when a mixed number is	Word strings are important. I can find a mixed number by dividing and a package.
Completed at the start of the lesson		Completed at the end of the lesson

Iníon Uí Mhurchú collects the grids. She uses the completed grids when revising fractions, setting homework, and designing differentiated tests for her class.

Sample homework

Maths Homework Monday, January 14

1. Write 5 mixed numbers.
2. List 5 fractions that make one when you add them.
3. Do $\frac{3}{4}$ and $\frac{1}{2}$ make one?
4. Are improper fractions > 1 ?
5. Write 5 improper fractions.

She files the grids as part of her records on each child. She finds the grids especially helpful when chatting to parents about their children's progress and when completing report cards at the end of the school year.

Gníomhaíocht shamplach 2.5

Ag baint úsáide as léaráid PMI le haghaidh féinmheasúnaithe

Réimse curaclaim	Teanga
Ábhar	Gaeilge
Snáithe	Labhairt
Snáthaonad	Ag úsáid teanga
Cuspóir curaclaim	Ba chóir go gcuirfí ar chumas an pháiste cluichí teanga a imirt.
Leibhéal ranga	Ranganna a cúig is a sé

Tá féinmheasúnú mar chuid de ghnáthshaol SN Ballynogue. Ó na laethanta is luaithe spreagtar na daltaí le measúnú a dhéanamh ar a gcuid oibre féin, ar bhealaí atá oiriúnach dá n-aois, chun a gcéad chéimeanna eile a phleanáil. Dá bhrí sin, tá na h-árdranganna sa scoil ar a gcompórd leis an bpróiseas measúnaithe seo. Míníonn a múinteoir, Síle, rialacha chluiche béil teanga do ranganna a cúig is a sé. Iarrtar orthu treoracha simplí béil as Gaeilge a leanúint. Má leanann na daltaí na treoracha go cúramach ba chóir go mbeadh pictiúr de chruth matamaiticiúil acu ar deireadh. Pléann siad na focail a bheidh de dhíth orthu. Molann na páistí focail atá ar eolas acu cheana - díreach, líne, fada, ar dheis, ar chlé. Le cuidiú ón mhúinteoir cuireann siad na focail a leanas leis an méid sin: tarraing, níos faide, gearr, níos giorra. Scríobhann Síle roinnt frásaí úra ar an gclár dubh-cas, nócha céim, cosúil. Míníonn sí na frásaí. Sula dtosaíonn said, pléann Síle agus a rang na critéir rathúla a ghlacfar leo don tasc áirithe seo. Comhaontaíonn siad ar cheithre chritéar. Scríobhann Síle ar an gclár dubh iad.

Ceithre chritéar

- Éist go cúramach – cuimhnigh gan cur isteach ar dhaoine eile.
- Scríobh trí fhocal ar a laghad a chloiseann agus a thuigeann tú.
- Scríobh aimn an ruda thíos faoi.
- Déan an litriú a seiceáil (i bhfoclóir, i leabhair, ar chairteacha nó ar líne).

Go mall, léann Síle amach na treoracha le dronuilleog a tharraingt. Cuireann sí na critéir rathúla i gcuimhne do na daltaí agus iad ag obair. Nuair a bhíonn críochnaithe ag na páistí, iarrann Síle orthu a gcuid oibre a thaispeáint. Tá dronuilleog déanta ag cuid acu agus d'éirigh leo an focal dronuilleog a aimsiú i bhfoinsí éagsúla tagartha atá sa seomra ranga. Scríobh tromlach na bpáistí cuid de na focail a d'úsáid Síle. Díreach sula dtéann na páistí ar sos tugtar cúig nóiméad dóibh lena gcuid oibre a mheasúnú agus léaráidí PMI á n-úsáid acu. Diríonn Síle a n-aird ar na critéir rathúla atá ar an gclár dubh. Dáileann sí léaráidí simplí PMI. Iarrann sí ar gach páiste rud dearfach agus rud diúltach faoin obair a chur san áireamh (rud amháin a bhfuil dúil aige/aici faoina c(h)uid oibre agus rud amháin nach bhfuil dúil aige/aici faoina c(h)uid oibre). Iarrann sí orthu leis rud amháin suimiúil faoin obair a lua. Scríobhann Zita ina cóipleabhar Bheadh mo phictiúr níos fearr dá mbeadh peann luaidhe géar agam. Níor thuig mé chuid mhór dá raibh á rá ag an múinteoir ach chuala mé 'arís' agus 'líne' agus litrigh mé i gceart iad! Scríobhann Máirín Sheiceáil mé an litriú ar chuid de na focail ar líne ach bhí Simon ag iarraidh an ríomhaire a úsáid agus ní raibh mé ábalta teacht ar an Ghaeilge ar 'rectangle'. Is í 'cearnóg' an Ghaeilge ar 'square' áfach! Scríobhann Dean Níor scríobh mé ach dhá fhocal – níl sé sin ró-mhaith – ach tá a fhios agam gur litrigh mé 'dronuilleog' mar is ceart. D'aimsigh mé é san foclóir! Bheadh mo chuid oibre níos fearr dá n-éistfinn níos cúramaí!

Bailíonn Síle pictiúir agus léaráidí PMI na bpáistí. Cuireann sí i gcomhad iad d'fhonn comparáid a dhéanamh le ceacht atá ar intinn aici a thabhairt níos déanaí sa bhliain. Mar chuid dá n-obair bhaile an tráthnóna sin iarrann Síle ar na páistí trí abairt a scríobh ag úsáid focail a scríobh siad taobh lena bpictiúir.

Conferencing

What is conferencing?

Conferencing in the context of assessment means that those concerned with the child's learning share their knowledge and understanding of the child's work, its processes and outcomes during a planned or intuitive meeting. At designated times during the school year the child's work and progress can be the subject of meetings between the child and his/her teacher, or the teacher and parents, or teacher and teacher, or all parties together.

What is the value of conferencing as an assessment method?

Conferencing provides an opportunity to share information in order to increase understanding about the child's learning. The conference is an assessment activity. When the conference is between teacher and child, about the work in a portfolio for example, the teacher talks to the child about his/her strengths and achievements and makes suggestions about where and how learning can be improved. Through conferencing the teacher listens to the child's ideas about what he/she finds easy or difficult in learning, and encourages this kind of openness in the child. This is an example of AfL; the outcome of the conference will inform the teacher's planning for next steps in the child's learning, and will help the child to see how his/her work can be improved.

How is conferencing used?

Teacher/child conferencing

The teacher sets aside a certain time for the conference, which might be termed a review, or a meeting, or simply a conversation. If conferencing is done regularly, for example weekly, the teacher will probably be able to devote only a few minutes to each child. If children are new to the process this might be a useful way to start. The duration or frequency will not matter as much as the child participating in and valuing the exercise.

The subject of the conference might be a single product of learning (a written story, a drawing, a project), or general learning experiences, such as using ICT or taking part in a drama or a field sport. The conference should be informal and non-threatening. It is essentially a conversation about school-work. At a later stage, or with older children, the teacher may use the conference to assign a grade to a particular piece of work the child has completed. Discussion of criteria would be essential: *What is it that makes this a good piece of work? How might it be improved?* A simple assessment rubric would be useful for this activity. A rubric is an assessment tool which describes varying levels of quality in a specific piece of work. (See Appendix A, p. 84 for more information on rubrics.) Sample activity 2.6 on the following page is an example of how a rubric might be used with sixth class children to assess pieces of their writing.

The classroom climate is a significant factor in the conferencing process. Children need to know and accept that they are not under examination in a conference with the teacher, and that they are free to say what they feel about their own performance in an activity or area of learning. The conference is more likely to succeed in a classroom culture that respects children's opinions and encourages them to express them. Children also need to see the conference as an opportunity to learn something about themselves as learners. Sample activity 2.7 on page 26 presents a conversation as part of a teacher/child conference in a supportive classroom environment.



Sample activity 2.6

Using an assessment rubric as part of conferencing

25

Curriculum area	Language
Subject	English
Strand	Competence and confidence in using language / Writing
Strand unit	Writing: developing competence, confidence and the ability to write independently Competence and confidence in using language: developing competence, confidence and the ability to write independently
Curriculum objectives	The child should be enabled to write, without redrafting, on a given or chosen topic within certain time constraints. The child should be enabled to observe the conventions of grammar, punctuation and spelling in his/her writing. The child should be enabled to help others in editing their writing.
Class level	Fifth and sixth classes
Strand	Receptiveness to language / Writing
Strand unit	Writing: creating and fostering the impulse to write Receptiveness to language: creating and fostering the impulse to write
Curriculum objective	The child should be enabled to receive and give constructive responses to writing.
Class level	Fifth and sixth classes

Sixth class children use the rubric below to assess a story they have written. The particular elements in the rubric are based on what makes a good story as discussed and agreed by the children and their teacher beforehand (the criteria for success in writing the story). Another rubric might be used in subsequent writing to assess punctuation, for example the use of quotation marks, exclamation marks, and so on.

Sample rubric

Feature	I didn't do well	I made a good effort	I made a very good effort
Structure and plot	My story doesn't have a clear beginning, middle and end.	My story has a structure and plot but some of it is not clear.	My story has a clear structure and plot.
Paragraphs	I have too many (or too few) paragraphs, or they are not beginning in suitable places.	Some paragraphs are in the right places, but some aren't.	My paragraphs begin at change points in the story and help the reader to follow the story better.
Interest	My story is not that interesting.	My story is fairly interesting.	My story is very interesting.
Characters	I have described no strong character in the story.	I have described at least one strong character in the story.	The characters in the story are described well.

Each child's reflection on his/her own piece of writing helps to develop his/her skills of metacognition (reflecting on one's own learning). A key outcome of each conference is that both the teacher and the child can understand something more about the child's learning and the next steps that need to be taken in supporting learning. In addition, the individualised nature of the conference means that the teacher can differentiate support appropriate to each child's abilities and needs.

Sample activity 2.7

A teacher/child conference

26

Curriculum area

Language

Subject

English

Strand

Competence and confidence in using language / Writing

Strand unit

Writing: developing competence, confidence and the ability to write independently

Competence and confidence in using language: developing competence, confidence and the ability to write independently

Curriculum objectives

The child should be enabled to experience varied and consistent oral language activity as part of the pre-writing process.

The child should be enabled to write independently through a process of drafting, revising, editing and publishing.

Class level

Fifth and sixth classes

Mr. Swift uses conferencing regularly with his twenty-six fifth and sixth class children. He makes time for small groups of the children to talk with him on a Friday before lunch. In this way, the children get to talk about their work for about three or four minutes every third week. Here he is talking with Shane about a piece of writing the class had done earlier in the week: *A UFO Landed Here Yesterday*:

Mr. Swift *Well Shane, what do you think about what you have written here? Are you happy with it?*

Shane *I don't know ... It's a bit short, I suppose.*

Mr. Swift *Well to me it's not too short. But what about the story? Did you read it to your buddy?*

Shane *I did. He thought the beginning was exciting but the ending was boring.*

Mr. Swift *And what do you think?*

Shane *Yeah, I think he's right. I had a few good sentences at the start - the short sentences we talked about before we started to write ... to make more suspense.*

Mr. Swift *I agree. You made the opening very interesting. And you used some of the scary words we had on the list. But I wonder had you a plan for how it would end? I think it finished too quickly.*

Shane *Yeah, it did. I just ran out of ideas. So I just finished it off.*

Mr. Swift *OK, so would you have another go at the ending? Remember that someone reading this story wants to know what happened to the two main characters. So make up a new last paragraph with a bit more information, just to bring the story to an interesting conclusion. If you get stuck come back to me tomorrow, and we'll look at it again.*

Shane *OK teacher, I've just thought of a better ending!*

During the conference, Mr. Swift directs Shane in identifying what could be improved in his story. There are a number of other things the teacher could dwell on but he uses this conference to highlight the story's ending, as work was done with the class recently on building structure in a story. Shane will now write up a second draft of the story. There may be some further small changes before the final draft is completed.

Mr. Swift has also used a buddy system in the class to have children read each other's work constructively. Each child is required to note one strength and one idea for improvement in the work of the partner buddy. Each teacher/child conference takes just a few minutes, the whole group taking 50-55 minutes of class time. Mr. Swift is confident that the time spent on conferencing is well spent, given the real improvement he has seen in the children's work.

Conferencing for AfL and AoL

Conferencing is a valuable exercise in AfL when it happens on an on-going basis during the school year. Then, steps can be taken to offer more focused support to the child. An end-of-year conference is more likely to support AoL when all parties consider the progress the child has made during the period of learning, often the full school year. This might involve talking about the outcomes of standardised tests, if they have been administered during that year.

Other types of conferencing

Parent/teacher conferences

Assessment information is also shared at parent/teacher meetings. Some of these are scheduled; others are unplanned meetings between the teacher and the child's parents. For both teacher and parent the meeting is an opportunity to learn more about how the child learns at home and at school, and to consider ways in which that learning can be supported. Such a meeting is also a chance to talk about the child's special interests, anxieties or misunderstandings concerning schoolwork or homework.

Teacher/teacher conferences

Teachers can meet each other to look at children's work within and across schools. This type of conferencing can help teachers to

- design more effective assessments
- develop common standards through a shared understanding of the quality of children's work
- gather and reflect on ideas for revising classroom practice.

In conferencing of this kind teachers identify criteria for judging the quality of work in different curriculum areas/subjects at different class levels by using samples of children's work as a basis for discussion.

Portfolio assessment

What is a portfolio?

From an early age children can develop self-assessment skills, gradually taking more responsibility for the quality of their own work. Creating a portfolio is a useful way to promote these skills. A portfolio is a collection of the child's work, reflecting his/her learning and development over a period of time. It can provide evidence of progress in learning in a curriculum area, a subject, a strand, or across a number of these, using a topic or theme as the focus. The *Primary School Curriculum* recommends the use of portfolios as well as work samples and projects for assessing learning in a number of subjects: Gaeilge, English, mathematics, SESE, SPHE, visual arts, music and drama.

Depending on its purpose, the portfolio can be used over a year, a term, or a shorter period. Portfolios also provide opportunities for collaborative assessment whereby the teacher and child together look at and talk about the child's work, identifying positive features and points for improvement.

Portfolios can exist in hard copy and/or electronically. An electronic portfolio, also known as an e-portfolio or digital portfolio, is a collection of a child's work created using word processing, presentation, multimedia authoring, concept mapping, database and/or spreadsheet software, and is assembled by the child. Simple text-and-illustration entries can be created by very young children. E-portfolios also provide scope for connecting work within the portfolio (for example, linking a video file to a document) and external to the portfolio (for example, linking a website to a presentation). The NCCA's guidelines, *ICT in the Primary School Curriculum* (2004) note that the range of electronic work samples will increase as children become more familiar with developing and maintaining their e-portfolios. *This will stimulate their interest in using ICT for learning, and foster their ability to assess their own work* (p. 35). E-portfolios can be updated and managed online, which facilitates sharing the child's work with others and storing assessment data within the classroom and school. An example of an e-portfolio is described in sample activity 2.9 which follows.

What might the child put in a portfolio?

The portfolio's contents depend on the portfolio's purpose(s). The teacher decides on the purpose(s) of the portfolio *before* beginning to use it. Examples of purposes might be: to show improvement in children's work, to show a range of work, to show children's strengths and interests, or to show their best work. The portfolio can represent both AfL and AoL. Depending on its purpose(s), the portfolio might contain samples of the child's work across the curriculum or in a particular subject including:

- Examples of written work at different stages of development (stories, letters, poetry)
- Project work in science, history or geography
- Work samples in visual arts
- Charts or diagrams from mathematics or science
- Photographs or video-recordings of the child's participation in a physical education activity
- Recordings of musical work.

How does the portfolio work as an assessment method?

Once the teacher has decided the purpose(s) of the portfolio, he/she explains the concept to the children. The teacher provides folders or containers of suitable size, or the child might make his/her own. The teacher arranges for storage (paper-based and/or electronic). The teacher or child (or both together) periodically select a piece of work for the portfolio using the agreed purpose(s) and criteria. The child attaches a short written statement explaining why this piece was selected. (The emphasis should be on what the child has learned.) The teacher and child can assign a grade or comment to each piece of work based on criteria related to learning goals or outcomes, but it is important that the teacher is aware that assigning grades rather than comments to items in a portfolio changes the assessment role of the portfolio.

The class could organise a display of portfolios in conjunction with a parent/teacher meeting. Some children might like to talk about their portfolios, what the work in it means to them, and what they have learned from it.

Questions a teacher should ask when planning to use a portfolio

- Why am I using the portfolio?
- What kind of learning will I assess?
Which subject(s)/skills/concepts/dispositions will I assess?
- How will the portfolio contribute to my assessment of the child's progress and achievement?
- What period of time will it cover—a term, a month, the full year? (Shorter periods will suit younger children.)
- What size will the portfolios be? Where will I store them? Is electronic recording possible?
- Who will select the content for the portfolio, and how frequently?
- If I plan to assign grades or comments to items in the portfolio, what criteria will I use to assign these? How will the children know what these criteria are?
- What will happen to the portfolio at the end of its use? Will the portfolios be shown to a wider audience (for example parents, other children in the school, at a school assembly or open day/evening)?

Sample activity 2.8

Creating a writing portfolio

Curriculum area	Language
Subject	English
Strand	Receptiveness to language / Writing
Strand unit	Writing: creating and fostering the impulse to write / Receptiveness to language
Curriculum objectives	The child should be enabled to express and communicate reactions to reading experiences. The child should be enabled to experience interesting and relevant writing challenges. The child should be enabled to see his/her writing valued.
Class level	Fifth and sixth classes
Strand	Competence and confidence in using language / Writing
Strand unit	Writing: developing competence, confidence and the ability to write independently
Curriculum objectives	Competence and confidence in using language The child should be enabled to observe the teacher improving writing.
Class level	Fifth and sixth classes

Ms. Kennedy teaches fifth class and uses portfolios to assess the children's work in English during the year. She gets the children to make up the folders (A3 size) and design the covers. She tells the children at the outset that the purpose of the portfolio is to show others and themselves how their English work improves during the year. About every two weeks Ms. Kennedy gives the class some time to look at their pieces of work and asks them to select what they think is a good piece. On the back of it they write one or two sentences explaining what is good about it. These features/qualities of good work are written on posters by Ms. Kennedy and displayed on the classroom wall so that she and the children can refer to them. They provide the basis for useful discussions.

Over the months the collection of work in each portfolio grows. By the end of the year, each portfolio has about fifteen items including poems, pieces of writing (some descriptive and some in story form), the re-telling of news items discussed in class, and accounts of holidays and school events. There are also word puzzles and quizzes, jokes and cartoon strips. The children store the portfolios on a shelf in the class library.

Ms. Kennedy is surprised at how well the children look after their portfolios. At the end of the year the class have a portfolio presentation whereby each child has a minute to talk to the class about his/her work and select their best piece. Many of the children are able to say how their work in English improved over the year. The portfolios are of great interest to parents when they meet the teachers and receive their children's reports.

Sample activity 2.9

Creating e-portfolios

Curriculum area/Subject	Social, Personal and Health Education (SPHE)
Strand	Myself
Strand unit	Self-identity
Curriculum objectives	The child should be enabled to develop an appreciation of and talk about personal strengths, abilities and characteristics. The child should be enabled to recognise and reflect on choices that are made every day.
Class level	First and second classes
Strand	Myself
Strand unit	Taking care of my body
Curriculum objectives	The child should be enabled to explore the various things the body can do. The child should be enabled to develop and practise hygiene skills.
Class level	First and second classes

In the first school term, children created portfolios of their learning about farm animals. Mrs. Farrell worked with children to create and maintain different kinds of portfolios. Some portfolios were presented in ring-binders with plastic pockets or file folders while others used pizza boxes.

To promote children’s use of ICT for learning, Mrs. Farrell plans to use e-portfolios for assessing children’s learning in SPHE with children in first class. Her purpose is to document children’s growing awareness and understanding of their bodies as well as their skills at making good choices.

Mrs. Farrell begins by helping the children to create a new folder on the desktop of the classroom PC. They use their own names for their folders. Using word processing software, Mrs. Farrell creates a one-page introduction to the e-portfolio (as shown below) which she helps each child to complete and save in his/her folder.

Introduction to the e-portfolio

Welcome to my first e-portfolio. It is all about me.

My name is

I am in class.

I like to

I feel happy when

Sample activity 2.9 (continued)

Mrs. Farrell and the children use the digital camera to take photographs of each child which they paste into each e-portfolio introduction.

To help children name and remember body parts, the children's next portfolio entry focuses on inserting the correct words beside a diagram of the body with blank labels. Over the following weeks each child continues to add samples of work to his/her e-portfolio including photographs of things the child likes to do, a list of things the child wants to learn to do, an audio file of a short story about a good choice that the child made, and some scanned artwork of children looking after their bodies.

Children become more familiar with finding and opening their own folders on the desktop of the classroom PC and adding new work sample files. During the term, each child shares his/her portfolio of work with other children in the group, discussing what they like about their work samples, and things they would like to improve on. Mrs. Farrell assesses the children's skills in presenting their own work to others. She sees from the range of skills the children demonstrate that further work and encouragement are needed for the shyer children in the class and she reorganises the portfolio groups to support these children.

At the end of the term Mrs. Farrell will provide time for children to present their portfolios and talk to the class about what they have learned about themselves. Mrs. Farrell plans to record children's presentations as short video files which provide evidence of children's reflections on their learning and their portfolios. These will be the final entries in the e-portfolio for each child.

Concept mapping

What is concept mapping?

Concept mapping (also known as semantic networking) is a process used to make spatial representations of ideas and the relationships between these ideas. The concept maps (or semantic networks) are similar to graphs containing ideas and labelled lines which describe the relationships between them. The purpose of the maps is to help the child show what and how he/she thinks about an idea. While there are different kinds of concept maps, they all help the child to organise and represent his/her thinking. In this way, the maps are graphic organisers or picture summaries of the child's understanding of ideas and the relationships between ideas.

What is the value of concept mapping as an assessment method?

Children constantly take in information about the world around them. They use this information to construct theories about why things are the way they are and why things happen as they do. These theories can change over time as a result of children's experiences and interactions with their environment and with other people. Concept mapping helps the teacher to see inside the children's thoughts. This information can give rich insights into what and how children are learning—the connections they are making between ideas. Concept mapping is also very beneficial to the children themselves. The process engages children in more meaningful learning by helping them to integrate new information into prior knowledge and provide evidence of this understanding. Children can also use concept maps as study guides.

The information the teacher gathers through concept mapping can provide important starting points and check-in points for teaching and learning. Constructing a concept map helps children to draw together the information they already have and understand about a particular topic or idea, and incorporate new information in their thinking as they learn. Concept maps can also improve children's understanding of individual concepts and help them to see connections between concepts. They can be especially useful for children with reading and writing difficulties since the children represent what they are learning graphically. Using evidence of children's learning from concept maps, the teacher can identify teaching strategies, activities and experiences to modify their learning where misunderstanding exists, and/or further develop their thinking.

Concept mapping is particularly useful in assessing children's learning in science, history and geography. It can be used with children across the different class levels but does require more teacher input with younger children.

How is concept mapping used?

Concept mapping begins with a discussion on the relevant idea or concept. Through this discussion, the teacher or children record(s) key words which represent the children's understanding of the idea or concept. These words become the basis for creating the concept maps, with the idea or concept the central focus of the map. Concept maps can be 3-D or 2-D. Making 3-D maps requires resources such as paper or card and string or wool, while 2-D maps can be created using paper and pencil or computer software such as word processing or concept mapping software.

Whatever format is used, the teacher sets the children the task (individually, in pairs or in groups) of organising the words or **concepts** in a way which enables them to describe relationships between concepts and sub-concepts. The number of concepts represented in a child's concept map provides evidence of the breadth of the child's understanding of the topic or area of study. The levels of concepts represented (concept, sub-concept, sub-sub-concept) suggests the depth of the child's understanding.

The children use lines to represent the **relationships** across the concepts and sub-concepts with arrows indicating the direction of the relationship. The teacher encourages children to show as many relationships as possible. The number of relationships represented in the child's map provides evidence of the extent of the child's integration of ideas within the topic or area of study. The teacher asks children to describe the relationships using as few words as possible. The accuracy of the child's description of relationships provides a further indicator of the extent of his/her understanding.

Some children, particularly those with strong visual-spatial abilities, learn to use concept maps quickly. Others can take longer to develop competence and might need to begin with simpler forms of graphic organisers and picture summaries.

When should concept mapping be used as an assessment method?

At the beginning of a unit of work concept maps can give information to teachers about children's current level of understanding (and misunderstanding) about a particular concept. This information enables the teacher to identify what knowledge he/she needs to focus on to meet the children's immediate learning needs, thus using concept mapping for AfL. During or at the end of a period of learning, concept mapping can provide evidence of how experiences or activities have modified or extended children's thinking. To do this, the teacher can invite the children to revisit their maps and adjust them as they would like, or the children can be given the opportunity to construct new maps based on the same concept. In this way, concept mapping can be used for AoL. Through this information, the teacher can also evaluate the effectiveness of his/her teaching in supporting children's learning.

Sample activity 2.10

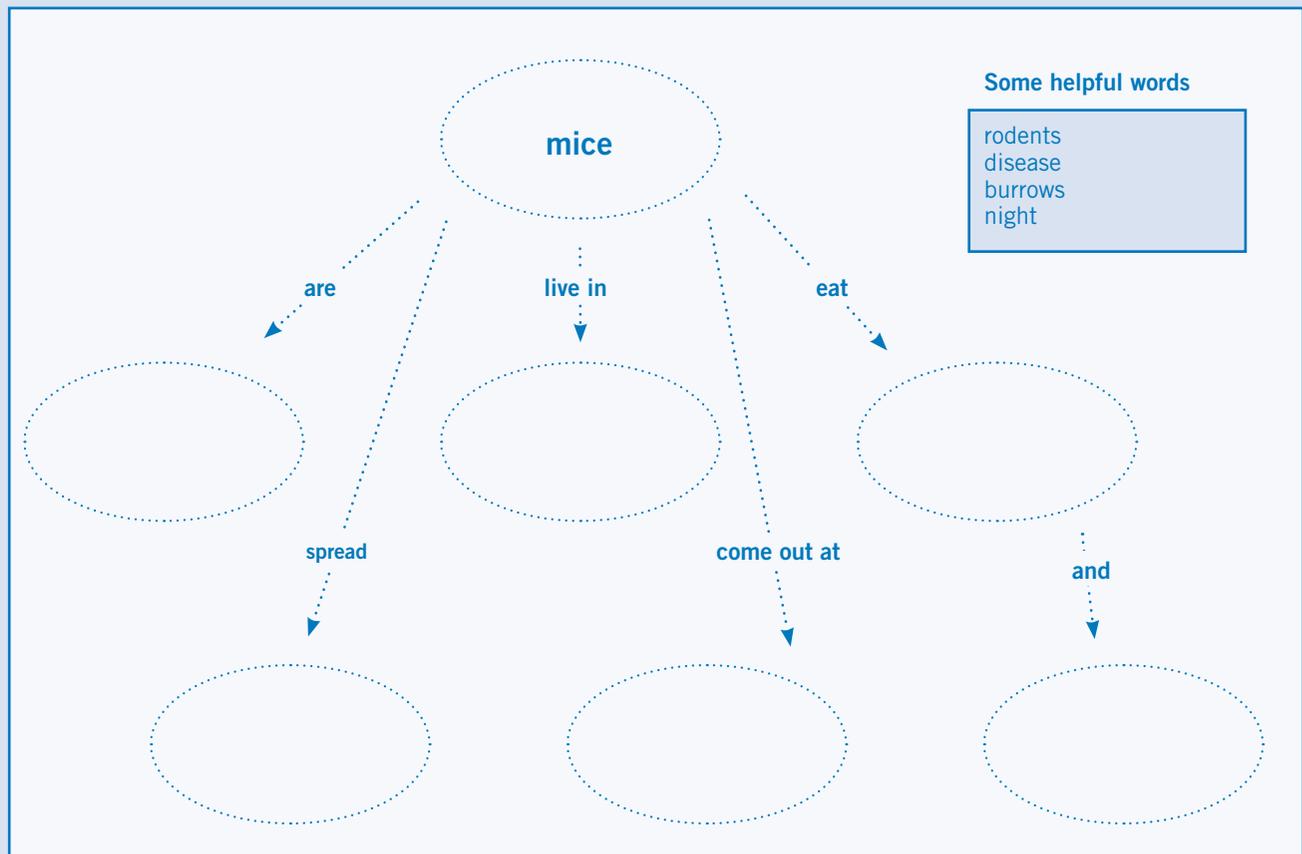
Using concept mapping for AoL

Curriculum area	Social, Environmental and Scientific Education (SESE)
Subject	Science
Strand	Living things
Strand unit	Plant and animal life
Curriculum objective	The child should be enabled to develop an increasing awareness of plants and animals from wider environments.
Class level	Third and fourth classes

There are twenty-seven children in Ms. Daly's third class. The children are learning about rodents in Ireland and abroad. Ms. Daly organises a show and tell session and invites the children to take part. Yuri brings his pet hamster to school and Síle brings the guinea-pig that her grandfather bought her for her birthday. The class interviews the local vet and pet-shop owner, uses on-line research as a homework task, reads books from the classroom and local library, prints and labels pictures from a CD-ROM using the computer in the classroom, and develops information leaflets on their pets for other children to read.

In assessing the children's learning Ms. Daly differentiates the concept mapping task by using two spider concept-maps. In a spider concept-map the central idea is placed towards the centre of the map while other sub-ideas radiate from it. She distributes the first map (see below) to a group of six children who experience difficulties with literacy. She asks the children to look and think about the map while she distributes a different concept map to the rest of the class. As soon as the children are settled and working independently on the task she returns to work with the first group. Ms. Daly helps them with key words or phrases and scribes for David who has Down's Syndrome.

Sample concept map template

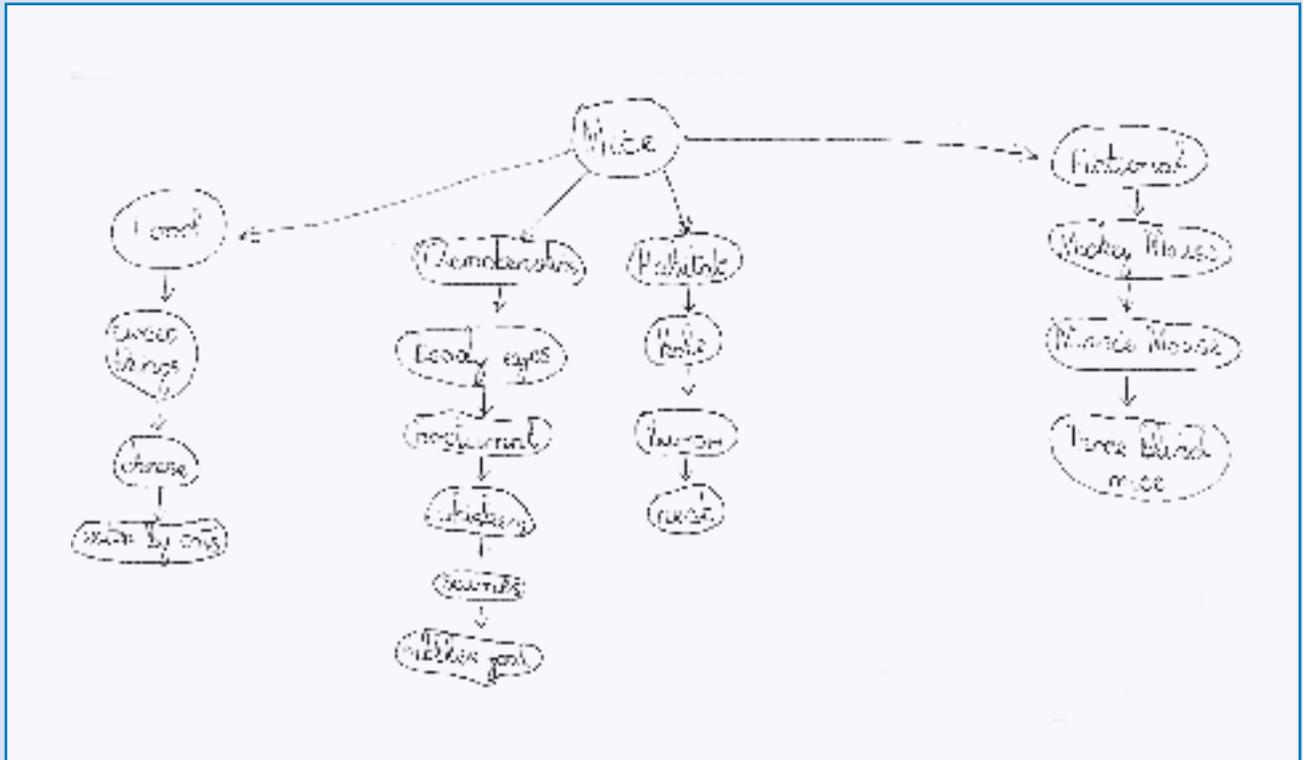


Sample activity 2.10 (continued)

38

The second map (see below) is completed by the rest of the class without assistance. This map requires the children to identify sub-ideas and also to indicate the relationship between these and the main idea.

Sample of a child's concept map



Reviewing the maps, Ms. Daly notes the extent of some of the children's learning and in particular, the children who have literacy difficulties. She writes this information in her day-to-day records for the class. She stores the concept maps in the children's central files and plans to share these with parents at the upcoming parent/teacher meetings.

Questioning

What is teacher questioning?

Questioning underpins all classroom assessment methods. Teachers regularly ask children oral questions about their work to find out what they have done and why. Teachers use these questions to assess knowledge and understanding and to guide children in their learning. Children also use questions to help them to learn, for example they ask their teacher and their peers questions. Part of the teacher's work in using questioning as an assessment method is to model good questioning. This in turn helps children to become more skilful at asking good questions to aid their own learning. (See Self-assessment, p. 16.)

There are many different types of oral questions. These range from closed questions in which the teacher anticipates a single, factual answer to open-questions which encourage a more critical, analytical response, and which facilitate multiple solution paths. (See Appendix A, pp. 86-87 for more information on types of questions.) Questions can also be used to assess learning (AoL) and to assist learning (AfL) although the distinction is not clear cut and questions may perform both functions to some degree. The following paragraphs explore some examples of oral questioning techniques.

What is the value of questioning as an assessment method?

Teachers' questions can assess children's depth of learning by encouraging them to elaborate on an answer, whether it be their own or another child's. This is called **probing**. Probing involves questioning children about how they have reached a solution to a problem or how they are presently working on a task. Probing can elicit clarification, solicit additional information, or redirect a child's response in a more fruitful direction. Probes include questions like, *How did you get that?* and *Why is that?* When using probing as an assessment method it is a good idea to ask if any of the probes can be more effective in determining children's current understanding and if so, how.

Teachers' questions can also take the form of **prompts**. Prompts involve asking children to consider aspects of a task with the aim of helping them to reach a correct solution or to use a more appropriate method. Prompts include questions like, *Does that work for all even numbers?* and *Suppose the shape was a rectangle, would that make any difference?*

Here are a number of questions to keep in mind if you are using prompts as an assessment method:

- Do the prompts address the common difficulties likely to be encountered by the children? If not, how might the prompts be altered?
- Do any of the prompts go too far, to the extent that you are, in effect, telling children what they should be doing rather than guiding them to reconsider their plans?

Answering questions

The examples above focus on the teacher asking questions. Encouraging the children to ask questions of the teacher can also provide information to support AoL and AfL. This can be achieved by:

- **Giving the children opportunities to ask questions:** Pause after making an important point or explaining a topic, or ask, *Any questions?* or *Do you want me to say more?* Give the children time to formulate their questions before going to the next point.
- **Trying not to postpone answering a question or not ignoring a child's question:** If one child tends to monopolise class time try saying, *Let's take questions from people we haven't heard from, or Vincent, I've already answered several of your questions, let's hear from some of the others first.*
- **Answering the child's questions adequately:** If the teacher does not wish to answer the question directly then he/she could try
 - repeating the question or paraphrasing it to ensure that the entire class hears the question.
 - redirecting the question to another child or to the class in general, asking for an answer or comment, or an elaboration of the issue.
 - responding to the child's question by directing his/her attention to things that may only be implied in the answer, and so help the child answer his/her own question.
- **Listening to the question:** Look at the child when he/she is talking; show that you are following by nodding; check whether you really understand what he/she is saying by rephrasing the question.
- **Promoting a discussion among the children:** Involve the majority of the class in trying to answer some questions.

Sample activity 2.12

Questioning to support AoL

43

Curriculum area/Subject

Mathematics

Strand

Number

Strand unit

Fractions

Curriculum objective

The child should be enabled to identify fractions and equivalent forms of fractions with denominators 2, 3, 4, 5, 6, 8, 9, 10 and 12.

Class level

Third and fourth classes

Bean Uí Bhriain teaches twenty-seven fourth class boys and girls. The children have been spending a week working on fractions during maths class. She wishes to probe their understanding of fractions by asking the following questions of the whole class. She begins with a starter question to elicit prior knowledge.

Bean Uí Bhriain *What is a fraction?* (She waits for five seconds before eventually calling on Anna to give the answer.)

Anna *A fraction is a small number.*

Bean Uí Bhriain (Echoes Anna's answer) *A fraction is a small number.* (She then poses a question to clarify Anna's answer.) *Can anyone tell me what Anna means by a small number?* (Again she waits for a further five seconds. This time she calls on Luke who doesn't have his hand up to answer.)

Luke *A fraction is a small number because you don't have the complete thing.*

Bean Uí Bhriain (Invites Luke to elaborate on his response by asking) *Can you give me an example?*

Luke *Like if you go to a birthday party and there is a birthday cake, well, the cake would have to be shared among all the children that are there, so everyone only gets a fraction of a cake.*

Bean Uí Bhriain *Right! So why are there two numbers in a fraction?* (She signals a non-verbal invitation from Pierre to respond using eye-contact.)

Pierre *Well if there is one cake, then this would have to show as 1 divided by the number of children it has to be shared between. Say for example, if there were eight children it would have to be shown as $\frac{1}{8}$ (one-eighth).*

Bean Uí Bhriain (Nods in agreement with Pierre. She then encourages the children to reflect on the topic by saying) *Now I would like you to think about this question and write down the answer. Are you all ready? If Anna got $\frac{2}{16}$ of the cake and Luke got $\frac{1}{8}$ of the cake, which child would have more?*

Úna *I think that Anna got more because 16 is bigger than 8.*

Bean Uí Bhriain *Is Una's right?*

Tadhg *No, Una's isn't right because $\frac{2}{16}$ and $\frac{1}{8}$ are the same.*

Bean Uí Bhriain *That is an interesting observation Tadhg.* (She presents a task to encourage the children to offer their own information and observations on the topic of fractions.) *This time I would like you to work in your groups. The question I would like each group to answer is: How can you tell when two fractions are equal? You have paper and pens in front of you. You have ten minutes in which to prepare your responses in the form of a television presentation. Each group will be asked to present for the rest of the class.*

Sample activity 2.13

Questioning to support AfL

Curriculum area	Social, Environmental and Scientific Education (SESE)
Subject	Science
Strand	Energy and forces
Strand unit	Sound
Curriculum objective	The child should be enabled to design and make a range of simple percussion instruments.
Class level	First and second classes

Mr. Traynor is teaching the topic of sound to twenty-two first and second class children. He starts with attention-focusing questions. He taps a spoon on the side of an empty jam-jar.

Mr. Traynor *What sound can you hear? Is it a high sound or a low sound?*

Mario *It is a high sound.*

Mr. Traynor half fills the jam-jar with water and taps the jar again. This time he uses a comparison question.

Mr. Traynor *Is the sound higher or lower than last time?*

Sarah *Lower!*

Mr. Traynor *What do you think will happen to the sound if more water is added to the jam-jar?*

The children are invited to predict the outcome. This process is repeated a number of times adding more and less water. When the children are familiar with the possibilities of the various levels of water in the jam-jars Mr. Traynor decides that they are now ready for problem-solving questions. He sets one group of six children a task of trying to compose a tune using only jam-jars and water. To another group of six children he gives a selection of elastic bands and cardboard boxes. To the third group he gives a variety of beaters (spoons, rulers, and so on) and common classroom objects to investigate sounds made using different materials.

At the end of the activity each group presents its findings, and Mr. Traynor is able to assess what each member has learned using further questioning and observation.

Teacher observation

What is teacher observation?

Teacher observation, spontaneous or planned, can happen any time a teacher and child interact. Observations made by the teacher in the classroom provide some of the most immediate and accurate information about a child's learning. When teacher observation is compiled as a written record it allows the teacher to describe a child's learning in context. These records can make the planning of further work for an individual, group or whole class more focused and systematic.

What is the value of teacher observation as an assessment method?

By recording details of what a child says, does or makes, and, more importantly, how the child says, does or makes things the teacher can gather important information about a child's learning. He/she can identify the child's learning needs and preferences and can gauge how effectively those needs are being met in class. Teacher observation provides the teacher with information about how the child interacts and works with others. It also helps the teacher to assess not only the child's ability to transfer skills and knowledge across the curriculum but also his/her ability to use learning materials and resources.

Observation helps the teacher to find out the varying degrees of success with which a child acquires and masters different skills and knowledge and then to adjust teaching and learning contexts accordingly. Some of the knowledge and skills acquired by the child are best observed in action, and so teacher observation may often be the only way to assess a child's progress accurately.

The *Primary School Curriculum* recommends the use of teacher observation in *all* subjects. There are several, similar ways of doing teacher observation. (See Figure 3 on p. 47.)

How is teacher observation used?

Teacher observation is part of classroom work. It includes listening and watching, and requires the teacher to notice, recognise and respond to the child's thinking and actions. Observation may focus on an individual child or on a group, but not all children will need the same level of observation at all times. Teacher observations occur spontaneously as children engage in learning activities and those observations may be recorded. More effective and purposeful monitoring of a child or a group involves teacher observation that is planned and recorded in a structured and focused way.

When should teacher observation be used?

Teacher observation can be used at any time in a classroom. For example, a teacher may decide to observe the discussion within a particular group in the classroom or the work of a child with learning difficulties. He/she makes suitable arrangements to observe the child or group, which may include organising group work for other children, securing the co-operation of a colleague, and/or drawing up checklists. Observation usually takes place over a short period of time. The teacher observes the child or group as they carry out planned tasks or assignments and he/she records the relevant information. Subsequent observations allow on-going monitoring of the child or group.



Figure 3: Some teacher observation methods

Target child observation

focuses on one child. A series of observations combine to give a picture of the child's unique development.

Event samples

are recorded observations of particular events that build up a pattern of a child's behaviour over a period of time.

Time samples

are short, repeated, focused observations of a child's development. They can be used to collect precise data over a long period of time.



Anecdotal observation

spontaneous or planned, is a written narrative of interesting instances of a child's development or behaviour.

A shadow study

is a recorded, planned systematic observation of aspects of learning or behaviour. It can involve an individual child, a group within a class, an entire class, or the school.

Sample activity 2.14

Target child observation

Curriculum area	Language
Subject	English
Strand	Competence and confidence in using language / Oral language
Strand unit	Oral language: developing competence and confidence in using oral language
Curriculum objective	Competence and confidence in using language
Class level	The child should be enabled to choose appropriate words to name and describe things and events. Infant classes

Áine is four and a half. Her teacher, Siobhán, is concerned about Áine's language development, in particular her colour recognition skills. She plans to observe Áine and her best friend, Katie, as they enjoy some free-play the following day. Siobhán knows that Áine and Katie like dressing up so she provides lots of very colourful clothes for them to try on. Katie picks a bright blue coat from the rail. She opens the buttons and puts on the coat. She closes the buttons carefully and admires herself in the mirror. *I like blue*, she tells Áine who is struggling with a fluffy pink jumper. Áine pulls the jumper over her head but can't get her arms into the sleeves. Siobhán asks her if she needs help. *No, pants Áine, do it myself*. Katie laughs and helps her to pull the jumper on the right way around. *What colour is your fluffy jumper?* asks Siobhán. *Is green*, she says. *No*, says Katie, *your jumper is pink! We look pretty!*

When her class have gone home that afternoon Siobhán makes an entry in her folder on the classroom PC. She opens the file marked Katie.

Scrolling to the end of the document she types:

Sample teacher record on Katie

October 21

Manages buttons well.
Knows the colours blue and pink.
Is helpful to her friends.

In Áine's file she types:

Sample teacher record on Áine

October 21

Shows some language delay.
Needs help with dressing.
Not sure of colours pink or green.
Likes to do things independently.

Siobhán saves the new information and closes the files.

Sample activity 2.14 (continued)

Before the end of the week Siobhán works with her class on the colours she has already taught. Through further questioning, she realises that she needs to differentiate between the children who are familiar with many colours and those who still struggle with the ones already covered in class. She discovers that Katie and three others recognise and can name all the colours she has planned to teach her class that year. While these children work in pairs on a computer program about colours Siobhán revises the colours taught so far. She pays extra attention to Áine who still struggles. She encourages her to name and use colour words as often as possible.

As Siobhán continues to observe and record Áine's use of oral language she realises that Áine's language development is delayed. She speaks to the school principal and they agree to discuss Siobhan's concerns with Áine's mother. She, in turn, agrees to encourage Áine to use more extended forms of language. Siobhán lends Áine's mum books that focus on colour from the class library. They decide that Áine might need specialised help with language and agree to monitor her progress over the next few months.

Siobhán often checks the children's files when doing her classroom planning. Before the school's parent/teacher meetings Siobhán refers to the files she has built up over the weeks on each child. She finds the files especially helpful when she is completing report cards on the children at the end of the year.

Sample activity 2.15

A shadow study

Curriculum area	Social, Environmental and Scientific Education (SESE)
Subject	History
Strand	Local studies
Strand unit	My locality through the ages
Curriculum objective	The child should be enabled to study a period or periods in the history of the local village, town, city area, townland, parish or county.
Class level	Third and fourth classes

There are twenty-four children in Mr. O'Grady's third and fourth class group. In September, Mr. O'Grady divides his class into teams to carry out a history trail in the local museum. Each team is of mixed ability and has at least one child from third class and one child from fourth class. The teams have to follow clues, work out answers, and find certain exhibits in order to complete the worksheets Mr. O'Grady has prepared. Over the following weeks the teams will construct models of some of the museum's exhibits and they will report on designing and making the model. Mr. O'Grady invites the parent of a child in his class to accompany them to the museum. A transition year student from a local post-primary school, who is on work experience, also goes along with the class.

Mr. O'Grady has planned to observe one team at work. As it is early in the school year he wants to study the team members' social interaction to see whether they can work well collaboratively. He plans to observe their individual learning preferences too. Mr. O'Grady notes that Gráinne emerges as leader during the early stages of the project. She allocates jobs and organises the recording of their findings. Another child, James, shows little interest in taking notes or reading clues. Erin, who works each day with the school's learning support teacher, is happy to follow the others in the team from exhibit to exhibit, but is slow to make suggestions of her own. Antonio asks whether he can use the school's digital camera, which Mr. O'Grady has brought to the museum for the children's use. Antonio carefully takes a short video clip of the team as they work. He photographs the exhibit the team decide to model.

James appears uninterested while in the museum. However, back in the classroom, at the design and make stage, he suggests some ways of constructing the model. After some discussion the other team members are happy to go along with his ideas. Antonio takes some further photographs as the team work on their model. With some help from the transition year student Gráinne and Antonio upload the photographs and video clip to the classroom PC, and they scan in their completed worksheets. When the children have completed the project their parents are invited to the school to see the work. Erin proudly reports to the class and parents who attend on how the team worked in the museum and on how they built the model. James points out its special features. Antonio and Gráinne run the photographs and scanned worksheets as a slide show and they play the short video clip.

Sample activity 2.15 (continued)

Mr. O'Grady writes brief notes as the children work in the museum. He makes further notes as they work in school afterwards. He notes their different learning preferences and aptitudes. He records each child's contribution to the group's work as it reflects his/her abilities and interests.

Sample teacher record

Gráinne	willing to take the lead – organised – good computer skills
Antonio	good computer skills – very good photographer – likes to work individually
Erin	oral presentation of ideas very good
James	seems to have little interest in reading and writing – good ideas about construction – able to take the lead too

Mr. O'Grady files the notes he has made. He encourages each child in the group to work to his/her strengths during the rest of the term. He discusses Erin's oral presentation with his colleague in learning support. They agree to help Erin to develop her verbal presentation skills while placing less emphasis, for the present, on her written work. He and James agree on alternative ways of taking notes. James is content to use concept maps which require him to do less writing in the short-term. Later in the year Gráinne helps with the publication of the school newsletter. Antonio's photographic skills are much used during the school's special events such as Sports' Day and school trips.

Mr. O'Grady plans to observe other groups as they carry out assignments through the term. He uses the notes he makes to inform his classroom planning and for reporting to parents.

Sample activity 2.16

Event sampling

52

Curriculum area/Subject	Physical Education (PE)
Strand	Games
Strand unit	Sending, receiving and travelling
Curriculum objective	The child should be enabled to develop and practice a range of ball handling skills.
Class level	Third and fourth classes

Liam's class, third and fourth, has been working on dribbling and passing skills in basketball for some weeks. Before moving on to other skills Liam wants to check on each child's progress.

He designs a simple checklist on the class PC. He includes the children's names, the date, and the skills he wants to monitor. He prints out the checklist and, over the next two PE lessons, he ticks the appropriate box as he observes the child demonstrating each skill. When necessary he makes very short notes to help him with his planning for the next phase of basketball lessons. (See examples below.)

Sample teacher checklist for 3rd class

3rd class Date: 25.09.07				
Name	dribble	overhead pass	bounce pass	chest pass
Micheál	✓	✓	✓	✓
Bryn	loses ball if he doesn't watch it all the time	✓	✓	✓
Jane	✓	✓	✓	✓
Brian	✓	✓	✓	✓
Mary	poor hand-eye co-ordination	✓	can't control the ball	✓

Sample teacher checklist for 4th class

4th class Date: 25.09.07				
Name	dribble	overhead pass	bounce pass	chest pass
Síle	loses ball if she doesn't watch it all the time	✓	can't control the ball	✓
Oisín	poor hand-eye co-ordination	✓	can't control the ball	✓
Claudia	✓	✓	✓	✓
Khumar	✓	✓	✓	✓
Olivia	poor hand-eye co-ordination	✓	can't control the ball	✓

He stores the checklist for use when speaking to individual children about their skill level, and for parent/teacher conferencing later in the year. He also uses the checklist when compiling written reports on the children.

Teacher-designed tasks and tests

What are teacher-designed tasks and tests?

Tasks and tests can take the form of written or oral assessments or practical assignments developed by the teacher to assess children's learning. They can be used throughout the school year as a basis for continuous assessment (AfL). Tasks and tests can also be used at the end of an academic year or at the end of a period of learning about a certain topic for the purpose of AoL. However, tasks and tests can serve both AoL and AfL at the same time, since teachers may firstly report the results of tasks and tests and then use the results to decide what they should teach and how they should approach each topic.

What is the value of teacher-designed tasks and tests as an assessment method?

Tasks or tests provide opportunities for children to demonstrate their levels of understanding (or misunderstanding) and their skills, and offer valuable information that can be used to plan future work directed towards the children's needs.

General guidelines for developing a teacher-designed paper and pencil test

- Identify the purpose of the test at the outset and design the test to meet this purpose.
- Try to formulate questions which relate to the children's own interests as this helps make the test relevant and motivating for children.
- Start with some easy questions that all the children can answer in order to help them overcome their nerves and feel confident that they can succeed.
- Include at least two types of problems in tests. When only one type of problem is contained on the page the children quickly pick up on this pattern, and it discourages them from reading and thinking about the problems. New problems can be mixed in with ones that the children can solve already in order to provide opportunities for children to show different degrees of integration of knowledge and different levels of ability.
- As far as possible write questions using a simple subject-verb-object structure, even when this may result in more words being used. For example: Instead of writing:

Example A

*Blue paint is added to a jam-jar containing yellow coloured water.
The colour of the water changes.
What colour does it become?*

The question could be phrased as:

Example B

*Laura has a jam-jar containing yellow coloured water.
She adds blue paint to the jam-jar.
The colour of the water in the jam-jar changes.
What colour is it now?*

Using a child's name as in example B also allows for the use of more simple, direct sentence structures.

- Avoid using double negatives in questions.
- Think about the overall layout of the test, and how the information will be presented. For example, a single question should be contained on one page to help children follow questions more easily.
- **Give key information in bold.** The use of pictures and labelled diagrams can help to make questions more accessible.
- Vary the questions so that they assess the children's reasoning skills behind their answers and the methods they use. (See Appendix A, pp. 89-90 for more information on developing test questions.)

How are teacher-designed tasks used?

Many teacher-designed tasks involve children working in small groups. For assessment purposes, a high level of interaction between the teacher and the group of children is recommended. In order for this to occur, the teacher may decide that it is necessary for just one group to work on the activity while the remaining children are engaged in other work that does not involve much input or supervision from the teacher. (See Appendix A, p. 88 for a guide to using a sample task planning sheet, and Appendix B, p. 94 for a photocopiable planning sheet.)

Feedback on tasks and tests

The use of grades or external rewards such as stickers for feedback on tasks and tests is generally of limited help to children in AfL. The main purpose of providing feedback is to give information to children about where they achieved success in relation to the learning intentions and where they might improve. Children need time to read or talk about the feedback as well as time to make improvements based on it.



Sample activity 2.17

Using a test

Curriculum area	Social, Environmental and Scientific Education (SESE)
Subject	Science
Strand	Living things
Strand unit	Plants and animals
Curriculum objective	The child should be enabled to group and sort living things into sets according to certain characteristics.
Class level	First and second classes

Ms. Sawyers is teaching a mixed first and second class group of twenty-five children. Building on the children's experience of sorting and matching she begins the activity with the whole class on the carpet, looking at a collection of pictures of animals pinned to a display board. She asks the children to choose an odd-one-out and to give a reason for their choice. The pictures of animals are chosen to focus on particular vocabulary (for example, mammals, egg-layers, distinguishing characteristics of insects, and so on). She notices that the children find it easier to identify differences based on visual features, so she encourages them to articulate and explain what the corresponding similarities are.

She designs a quick informal test involving differentiated activities to assess the children's thinking about the characteristics relevant to scientific classification. This test provides the children with opportunities to use specific vocabulary in a way that reveals their understanding of terms that are important for classification.

For the younger and less able children in the class she introduces a game called 'In the Ring'. The children work in pairs with a hoop for sorting and sets of cards with pictures of animals. She asks them to find farm animals and put them in the hoop. She asks questions about the animals in the hoop and those out of the hoop. Ms. Sawyers then asks the children to take all the animals out and to put other animals in the hoop (for example, animals that hibernate).

She presents the older and more able children in the class with a grid (odd-one-out board) containing names of animals (see below).

Sample grid of animal names

squirrel	polar bear	cow
hedgehog	penguin	bat
swallow	butterfly	hen

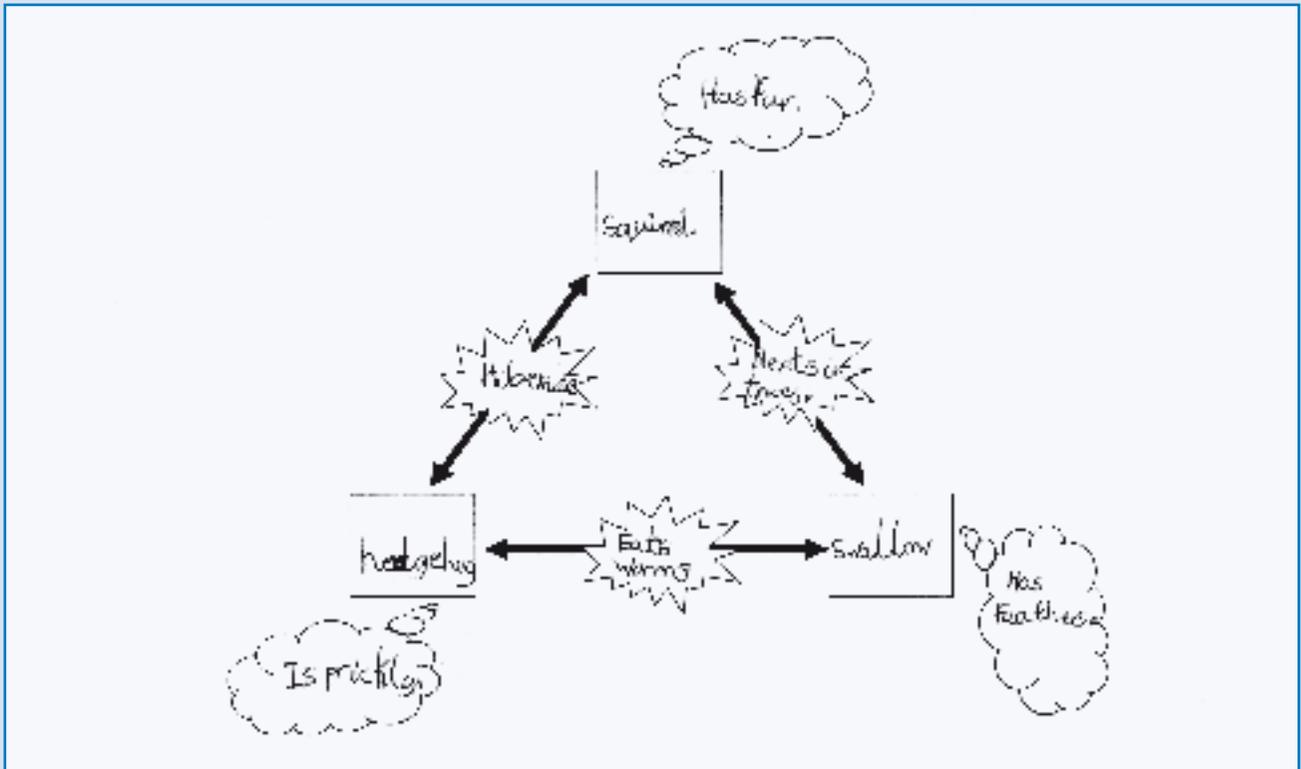
She asks the children to choose a row or a column and complete an odd-one-out template recording the similarities and differences between the animals and then to pick the odd-one-out giving a reason for their choice.

Sample activity 2.17 (continued)

The following is a sample completed template.

56

Sample completed template



John and Fiona complete this task quickly, so Ms. Sawyers poses a more challenging task. She asks them to make up their own odd-one-out board and to find something that is the same about two of the animals and something different about the third.

A group of six children from second class are asked to choose one animal each from the grid and to complete a report using a template Ms. Sawyers gives them. (See sample report on p. 57.) Any information that they do not know they look up on the computer. Teresa 'googles' the word squirrel and locates a number of websites with information on the animal. Ms. Sawyers observes that she is able to read and understand the information presented on the websites in order to complete the exercise.

When the tests and tasks are over Ms. Sawyers collects all the grids and reports. In her teacher records she writes brief notes about what each child did and what difficulties he/she encountered. For example, she identifies Clodagh as not performing as well as expected. While Clodagh came up with features such as colour she did not refer to any of the more scientific features which the class had been working on. Ms. Sawyers makes a note to re-emphasise some of the main classifying features of animals to Clodagh.

Sample activity 2.17 (continued)

Sample report

Living things report	
Name: Teresa	Date: 2/10/07
Title: The squirrel	
Definition:	
A squirrel is a small animal.	
It is a kind of Mammal.	
Appearance: What does it look like?	It is small with grey or red fur and a bushy tail.
Habitat: Where does it live?	It lives in nests in trees.
Life cycle: How is it born? How does it change?	It started life as a hair-less and tooth-less, or just long baby. It grows hair, teeth and gets bigger.
Food: What does it eat?	It eats nuts, seeds and fruit.
I know that they hibernate.	

Ms. Sawyers returns the grids and reports to the children, and over the next few days she takes a few minutes to talk to each child about his/her work. She returns to many of the points that arose during these teacher/child conferences to plan follow-on work on the life-cycle of animals. One observation she makes is that the children find it easier to describe the life-cycle of animals, which have distinct stages, such as a frog or a butterfly, but that they have greater difficulty with mammals. Ms. Sawyers reflects on the results of the test and adapts the next topic, the processes of life, with a view to incorporating different tasks so that more emphasis is placed on the life-cycle of mammals.

Gníomhaíocht shamplach 2.18

Ag baint úsáid as taisc

Réimse curaclaim

Ábhar

Snáithe

Snáithaonad

Cuspóir curaclaim

Leibhéal ranga

Teanga

Gaeilge

Labhairt

Ag úsáid teanga

Ba chóir go gcuirfí ar chumas an pháiste usáid a bhaint as leideanna éagsúla chun cabhrú le cumarsáid éifeachtach a dhéanamh.

Ranganna a haon is a dó

Tá an múinteoir ag iarraidh cumas labhartha na gcailíní i rang a haon a mheas trí dhráma beag a chumadh. Iarrann sí ar bheirt cailíní scéal beag a chumadh. Déanann siad é seo go rúnmhar le cabhair ón múinteoir agus ansin cuireann siad an dráma ar siúl go tostach ag úsáid míme chun an scéal a insint. Caithfidh na cailíní eile sa rang an scéal a insint in abairtí simplí. Is é ábhar an scéil ná go dtéann Caitriona go dtí an siopa chun seacláid a cheannach mar bhronntanas mar inniu breithlá Mhamaí.

Glaonn na cailíní abairtí amach:

Bhí airgead ag Caitriona. Chuaigh sí go dtí an siopa. Cheannaigh sí barra seacláide. Chuir sí an tseacláid i mála. Chuaigh sí abhaile. Fuair sí paipéar agus rinne sí cárta. Ansin scríobh sí air. (Taispeánann sí a bhfuil scríofa aici don rang). Tháinig Mamaí isteach. Thug Caitriona an cárta do Mhamaí. Thug sí an seacláid di freisin. Dúirt sí, 'Breithlá Shona', a Mhamaí. Bhí áthas ar Mhamaí. Bhris sí an tseacláid agus thug sí píosa do Chaitriona.

Cloiseann an múinteoir cuid mhaith botún á ndéanamh, go háirithe ós rud é nach bhfuil an leagan ceart de na briathra á úsáid. Ach níl sí buartha faoi seo. Ta sí sásta faoi láthair go bhfuil na cailíní ag caint, agus ag baint taitnimh as an dráma. Tugann an múinteoir faoi deara na cailíní a labhraíonn go minic agus iad siúd a bhíonn ciúin. Meallann sí iadsan chun iarracht a dhéanamh. Tugann sí seans dóibh an mhím a dhéanamh nuair a bhíonn sé ar siúl arís.

Standardised testing

What is standardised testing?

Standardised tests are used to measure a child's reading and mathematical skills, and to determine children's progress in those areas. Information from the tests is important given the vital role of literacy and numeracy in enabling children to access the full curriculum.

A standardised test is an assessment instrument that contains standardised procedures for its administration and scoring and for the interpretation of its results. In other words, the test is administered, scored and interpreted the same way no matter when or where it is used. A number of standardised tests available to Irish schools have been normed on the Irish primary school population. Teachers will be familiar with these. Normed means that the tests allow the teacher to compare a child's performance on the test with the performance of children of that class level or age in Irish primary schools. The test items also relate to the content of the *Primary School Curriculum*. When used in combination with information from other assessment methods standardised test results contribute to the accuracy of the teacher's monitoring, and assist in identifying the needs of individual children.

How is assessment information gathered and recorded using standardised testing?

All Irish primary schools are required to administer standardised tests in English and mathematics to their pupils twice during their primary school years—at the end of first class or beginning of second class and at the end of fourth class or beginning of fifth class. The tests are usually administered by the class teacher under conditions specified in the test's manual, in order to ensure that the test results are valid. It is important to prepare well for the administration of the tests. The test manual provides detailed instructions in this regard, but it is of particular importance to ensure that the classroom conditions and timing are suitable, and that all necessary materials are prepared in advance.

Teachers mark and score the tests as set out in the test manual. The manual also contains a template for recording standardised test information. The individual child's test results are also recorded in his/her Pupil File. (See Section 4, p. 79 for more information on the Pupil File.) Recording these results on the child's school Report Card is discussed later in Section 4 also.

How are the results of standardised tests interpreted?

The teacher needs to be familiar with key concepts such as raw scores, standard scores, percentile ranks, and STen scores when interpreting and recording test results. These concepts are explained in the test manual and they are also summarised in Table 1.

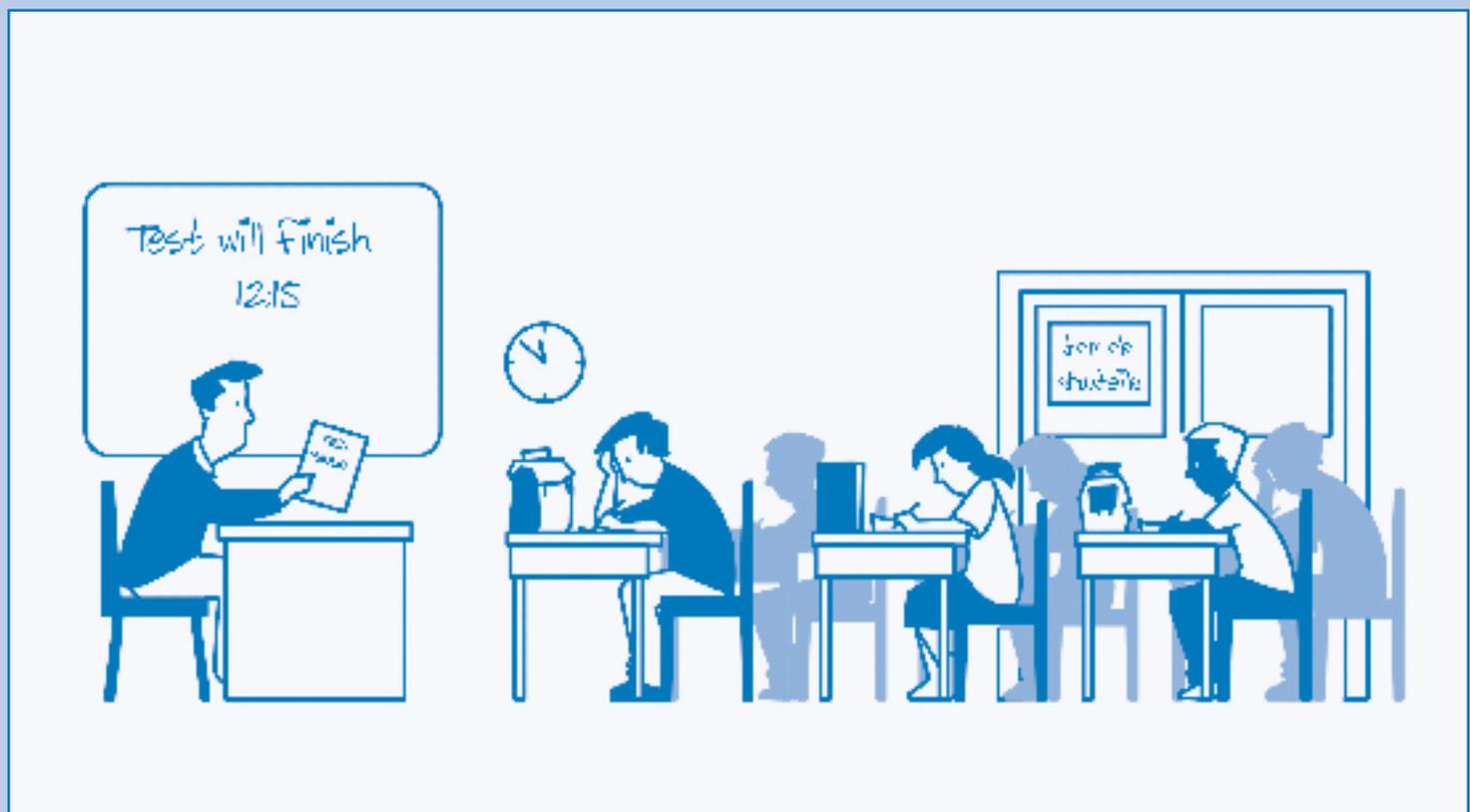


Table 1: Overview of concepts associated with standardised test scores

Name of score	What the score means
Raw score	This is a simple count of the number of items for which the child has supplied correct answers. It is of little use in reporting on a child's performance.
Standard score	Standard scores are transformations of raw scores, and usually range between 55 and 145, with an average of 100.
Percentile rank	The percentile rank indicates the percentage of the relevant class or age group which has scored equal to or lower than this child's score. It does not mean the percentage of test items the child answered correctly.
STen score	STen scores are a ten-point scale with 1 representing the lowest category and 10 the highest. These are derived from standard scores. (See Table 3, p. 63 for descriptors for explaining STen scores.)

It is important to use a range of assessment information when making decisions about a child's progress and achievement. The teacher's regular observation of the child's classroom performance and participation, as well as other recorded evidence of the child's learning, should complement the standardised test score. Teachers often (but not always) find that standardised test results confirm their judgements and observations. It is also important for class teachers to consult with relevant learning support and/or resource teachers to provide a fuller picture of the child's progress, strengths and weaknesses. This is particularly important when preparing reports for parents.

Teachers are advised against over-reliance upon a single test score. Caution is advisable because the following factors need to be considered:

- A standardised test may measure a child's performance on that test on that day, but this is not a certain measure of a child's ability.
- There is a margin of error in standardised tests which means that the result may be in error to a certain degree above or below the child's test score.
- Children's performance on tests becomes more stable over time.
- Extraneous factors can affect the child's performance on the test, for example the child may have been unwell, or particularly nervous.
- Coaching a child for the test will distort the outcomes.
- Despite the teacher's vigilance, copying can occur.
- A child's level of language development is a significant factor in test performance. For example, a child with poor reading skills may have difficulty in reading the text of mathematical questions. For children whose first language is not English, the test may be inappropriate. The test manual will provide details of the situations where the tests are not suitable. (Teachers may also refer to the DES Circular letter 0138/2006 of December 2006, *Supporting Assessment in Primary Schools*.)

How can standardised test results be used?

The results of standardised tests are generally used in primary schools in Ireland for the following purposes:

- to identify children with learning difficulties so that appropriate supports can be put in place, including, if necessary, learning support provision. While the test outcomes may serve an initial screening function, additional diagnostic testing will be required to determine the child's specific learning needs. (Teachers should refer to *Learning Support Guidelines* (DES, 2000)).
- to identify children with exceptionally high scores so that appropriate learning experiences can be provided for them. (Teachers may find the *Guidelines for teachers of exceptionally able students*, (NCCA, 2007) useful in supporting these children.)³
- to report to parents on their children's achievement and progress.

Standardised testing is generally seen as AoL, indicating the child's performance at the end of a period of learning. Standardised tests are administered by some post-primary schools when children are transferring from primary school. In this case, the test results may be used to allocate children to class groupings or to identify children requiring supports. The advice that caution should be exercised when making decisions on the basis of a single standardised test score is even more pertinent here when the stakes are higher.

Standardised tests may also be used for AfL, providing information to the teacher that is useful in planning further learning in literacy and numeracy. For example, teachers may look at a set of class results to see whether any significant patterns or features are apparent, especially in the distribution of the scores. These patterns can provide the teacher with information to adapt his/her teaching methods, differentiation strategies, content of the learning experiences, and so on to meet the children's learning needs more effectively. School-wide results are also useful as they might indicate the need for attention to particular skills or areas of learning across different class levels.

Sample activity 2.19 on the next page shows how a particular set of standardised test results in English reading are interpreted.

³ The NCCA plans to publish these guidelines in autumn 2007.

Sample activity 2.19

Interpreting standardised test results in English reading

Curriculum area	Language
Subject	English
Class level	Third and fourth classes

It can happen that a child's scores in Reading Vocabulary and Reading Comprehension show apparently large differences as, for example, in Stephen O'Brien's test results shown below (from third class).

Reading Vocabulary			Reading Comprehension			Total Reading		
RS	SS	PR	RS	SS	PR	RS	SS	PR
25	109	73	14	93	32	39	102	55

Noting the difference between Stephen's scores, his teacher checked the relevant test manual to help her interpret the scores.

Although the teacher realised that such differences can occur by chance, she wondered whether this indicated that he had a reading difficulty. Yet Stephen's Total Reading Standard Score was 102, which suggested he was an average reader. Here it is useful to look at the difference between the Standard Scores. If they differ by more than 15 points—as they do in Stephen's case in Reading Vocabulary and Reading Comprehension—then a real difference in achievement is possible. Further testing may be advisable to determine whether Stephen does need support. It should also be noted that the Total Reading score can be a good indicator of a child's learning needs, as it totals the scores for both Vocabulary and Comprehension.

How should the results of standardised tests be reported to parents?

Reporting to parents is about sharing assessment information for the benefit of the child. It is important that teachers develop the language to make standardised test results accessible to all parents. It can be useful to express the child's performance on the standardised test as being *consistent with* or *not consistent with* the child's progress as assessed in other ways by the teacher, including tasks and tests, as well as observation. (See Section 2, pp. 14-58 for information on other assessment methods.)

A percentile rank may seem appealing for its apparent simplicity, but explaining the difference between a percentage and a percentile to parents is not always easy. A similar challenge arises in explaining the relationship between raw scores and standard scores. STen scores, which band a range of percentile scores together, may be more easily communicated and interpreted. (The term STen is derived from *Standard TEN*.) It is important that the teacher refers to the relevant test manual as it contains tables which express the child's performance in these different ways.

Verbal descriptors are useful when sharing standardised test results with parents and explaining to them what the scores indicate about their child's achievement. Tables 2 and 3 on p. 63 give overviews of test scores and what they indicate about the child's achievement. Test manuals also provide teachers with descriptors, and again it is important that the teacher refers to the relevant manual when using these descriptors. In the case of some tests the descriptors are linked to standard score ranges which teachers may be familiar with through psychologists' reports. The descriptors used in Table 2 reflect those used in the standardised tests normed on the Irish primary school population.

Table 2: Interpreting standard scores for parents

Standard Score Range	Descriptor	Coverage
130 and above	Well above average/Extremely high	2%
120-129	Above average/High	7%
110-119	High average	16%
90-109	Average	50%
80-89	Low average	16%
70-79	Below average/Low	7%
Below 70	Well below average/Extremely low	2%

Table 3 presents an alternative representation of scores in five rather than seven categories. Each band above and below the average denotes one-sixth of pupils while the average band in the table above represents one-third of pupils.

This approach to representing the scores has the advantage of equating the STen scores with a descriptor that may provide a familiar basis for reporting children's achievement to their parents.

Table 3: Interpreting STen scores for parents

Standard Score Range	STen Score Range	Descriptor	Coverage
115 and above	8-10	Well above average	Top one-sixth of pupils
108-114	7	High average	One-sixth of pupils
93-107	5-6	Average	Middle one-third of pupils
85-92	4	Low average	One-sixth of pupils
84 and below	1-3	Well below average	Bottom one-sixth of pupils

Whichever score is used for reporting, it is more important to make parents aware of the significance of the score than to provide a full understanding of the means by which it was derived.

Sample activities 2.20 and 2.21 on the following pages show how teachers might report individual children's scores on standardised tests to their parents.

Sample activity 2.20

Reporting standardised test results in mathematics

Curriculum area/Subject
Class level

Mathematics
Fifth and sixth classes

Niall completed a standardised test in mathematics in May at the end of fifth class. His scores were as follows:

Raw score	Standard score	Percentile rank	STen score
72	116	86	8

When Niall's mother called to the school to collect his end of year report the teacher, Éamonn, explained the test results to her. He told her that Niall had done very well as a STen score of 8 was a high average result. This score was consistent with the results of standardised tests over the previous years as well as with Niall's performance on classroom tests set by the teacher.

Éamonn had availed of the diagnostic element of the standardised test. He had calculated the '% correct' for each section of the test and was therefore able to identify problem-solving as an area that required some attention for Niall. This tallied with his notes of regular classroom observations. Niall's mother asked whether she could help Niall at home in any way. Éamonn explained some problem-solving strategies that Niall used in class and could be encouraged to use in his homework. He added that he would forward his advice on this, as well as the test results, to Niall's teacher for the following year.

Sample activity 2.21

Reporting standardised test results in English reading

65

Curriculum area Language
Subject English
Class level First and second classes

Ciara completed a standardised reading test in English at the end of first class when she was 6 years and 10 months old.

Class-based scores				Age-based scores				Reading age	
RS	SS	STen	PR	RS	SS	STen	PR	RS	RA
18	77	3	6	18	87	4	19	18	5.08

Mrs. Rooney checked the appropriate test manual. She discussed her concerns with the school principal. They noted that Ciara's age-based scores were higher than her class-based scores. They realised that this happened because Ciara was younger than average for the end of first class and age-based scores take account of whether a child is younger or older than the average for their class level. The test results showed clearly that Ciara was struggling when compared nationally to other children in first class. Mrs. Rooney and the principal recognised that it was perfectly valid to concentrate on the lower of the two scores when recommending that Ciara would have further diagnostic testing. Mrs. Rooney then met Ciara's father.

She explained the test results to him. She said that Ciara's results indicated that she might need learning support in English as her scores would be classified as low or low average. Mrs. Rooney said that Ciara would meet with the learning support teacher after the summer holidays for diagnostic tests, which would give a clearer picture of her learning needs in this area.

A continuum of methods

This section presented a continuum of eight assessment methods from child-led methods such as self-assessment and conferencing to more teacher-led methods, including teacher-designed tasks and tests, and standardised tests. Each of these methods can provide information to help the teacher create an accurate account of the child's learning across the curriculum for both AfL and AoL.

refers to short-term activities such as clarifying the purpose of the assessment, and to more longer-term activities such as supporting developmental processes and experiences for children. The *resources* column refers to tangible resources such as samples of children's work, as well as to organisational resources such as time. Finally, the *strengths* column presents some of the benefits of using each method.

Table 4 provides a summary of **some** of the points for consideration when using the eight methods. The *planning and organising* column

Table 4: Some points to consider when using the eight assessment methods

	Planning and organising	Resources	Strengths
Self-assessment	<ul style="list-style-type: none"> • Clarify the purpose; decide what information will be recorded and where. • Agree criteria for success. • Develop children's self-reflection skills. 	<ul style="list-style-type: none"> • prompt questions and tools for children • time for children to reflect on their work 	<ul style="list-style-type: none"> • Promotes the child's independence and motivation. • Provides information from the child's perspective.
Conferencing	<ul style="list-style-type: none"> • Clarify the purpose; decide what information will be recorded and where. • Organise learning activities for the rest of the children. • Develop children's self-reflection skills. • Identify appropriate language. 	<ul style="list-style-type: none"> • sample(s) of children's work • time to talk to the child, parent or colleague(s) 	<ul style="list-style-type: none"> • Provides information from the child's perspective. • Builds home-school links. • Fosters collegiality – learning and sharing with colleagues.
Portfolio assessment	<ul style="list-style-type: none"> • Clarify the purpose; decide what information will be recorded and where. • Develop children's self-assessment and conferencing skills. 	<ul style="list-style-type: none"> • materials and/or software to create the portfolios • storage space • time to talk to each child about his/her portfolio 	<ul style="list-style-type: none"> • Promotes the child's independence and motivation. • Supports self-assessment. • Provides samples of children's work as evidence of learning. • Provides information from the child's perspective.
Concept mapping	<ul style="list-style-type: none"> • Clarify the purpose; decide what information will be recorded and where. • Develop children's concept mapping skills. • Select appropriate maps. 	<ul style="list-style-type: none"> • materials and/or software to create the concept maps • time to interpret the maps 	<ul style="list-style-type: none"> • Provides visual representations of how and what children think. • Provides evidence of changes in children's thinking over time.

	Planning and organising	Resources	Strengths
Questioning	<ul style="list-style-type: none"> • Clarify the purpose; decide what information will be recorded and where. • Formulate different types of questions. • Decide the timing of questions. 	<ul style="list-style-type: none"> • questions which support higher-order thinking • time to use different types of questions with different children 	<ul style="list-style-type: none"> • Provides immediate feedback on children's learning. • Usually requires few tangible resources. • Models good questioning for children.
Teacher observation	<ul style="list-style-type: none"> • Clarify the purpose; decide what information will be recorded and where. • Plan suitable tasks for the children being observed. • Organise activities for the children not being observed, which minimise interruption to the teacher. 	<ul style="list-style-type: none"> • observation templates or checklists • time during class to observe 	<ul style="list-style-type: none"> • Provides immediate feedback on children's learning. • Can be planned or spontaneous.
Teacher-designed tasks and tests	<ul style="list-style-type: none"> • Clarify the purpose; decide what information will be recorded and where. • Prepare test questions and tasks which demonstrate particular understanding or skills. 	<ul style="list-style-type: none"> • resources for teacher-designed tasks and tests • time during class to observe tasks 	<ul style="list-style-type: none"> • Provides evidence of learning in context (tasks). • Provides samples of children's work as evidence of learning (tests).
Standardised testing	<ul style="list-style-type: none"> • Clarify the purpose; agree when during the year the tests will be taken; decide what information will be recorded and where. • Read the test manual. • Choose the appropriate day and time, and organise the class. • Plan activities for children not taking the test. 	<ul style="list-style-type: none"> • test booklet per child • test manual • time to administer the test • time to mark and interpret the results 	<ul style="list-style-type: none"> • Indicates achievement compared to performance nationally. • Helps to identify children's individual learning strengths and weaknesses.



A photograph of a classroom scene outdoors. A teacher, seen from the back, is wearing a dark green suit and holding a large globe. A young boy in a light blue shirt and tie is looking up at the globe with an excited expression. The background consists of dark green foliage.

SECTION 3

A CLOSER LOOK AT AFL AND AOL

Section 3

A closer look at AfL and AoL

This section compares and contrasts the two approaches to assessment (presented in Section 1), **AfL** and **AoL**, according to the activities included in the definition of assessment in Section 1 and below. As outlined in Section 1, these activities overlap and often happen simultaneously.

Assessment is the process of **gathering, recording, interpreting, using, and reporting** information about a child's progress and achievement in developing knowledge, skills and attitudes.

Samples of classroom practice are included in this section along with references to the assessment methods described in Section 2. Discussion begins with the first assessment activity, *gathering assessment information*.

1. Gathering assessment information

Gathering information for **AfL** is generally part of the classroom routine, and does not break the flow of teaching and learning. To the child, a question and answer session with the teacher can be a conversation, but the skilled teacher can glean valuable assessment information from it about what and how the child is learning. A learning support teacher for reading explains, *I am constantly observing and listening to the children and I regularly make changes to my plans to take account of what I have seen and heard*. In the following examples teachers describe how they gather assessment information unobtrusively, and use it to further children's learning.

During the second lesson on the notation of tenths as decimals I asked the children to shade in point five on their worksheet figure. When I had reviewed a selection of attempts I realised that the majority of the class had not grasped the concept. I proceeded to revise the basic concept using labels applied to coloured cardboard strips. This was much more effective, as I discovered from later questioning. (Teacher, Third class)

In reading the children's written English work I noted some grammatical errors that were being made by a number of children. I planned a series of activities aimed at correcting these errors, targeting one error each week. (Teacher, Fifth class)

Noticing the poor nutritional quality of some children's lunches, I planned a series of lessons integrating SPHE and Science—designing and creating a healthy snack. (Teacher, Senior infants)

AfL also involves the learner actively. The teacher can share the learning intention with the children, which involves the children discussing with the teacher what it is that they are about to learn. In addition, the child can consider with the teacher what the learning criteria are. For example, they might identify the key elements of good story writing using a rubric. These elements of **AfL** offer ways of involving the child in reflecting on and assessing his/her own work.

By contrast, **AoL** generally takes place at the end of a learning period. The teacher can use a variety of assessment tools including spelling tests or standardised tests. The teacher can also use methods such as questioning and observation of a child's learning. The teacher leads the assessment and the child is aware that he/she is being assessed. Below, teachers describe some ways they gather information through **AoL**.

After a series of lessons on the Normans I brought my fifth class to visit our local Norman castle. We had prepared for the visit and looked for some of the main details in the building. When we returned to class I asked the children to draw their impression of the castle, showing as many of these details as they could recall. (Teacher, Fourth class)

Tar éis sraith ceachtanna ar an saol sa chathair d'iarr mé ar na daltaí cur síos a dhéanamh ar phictiúr den sráid chun a gcumas labhartha a mheas. (Múinteoir, Rang a sé)

When we had worked with long multiplication for some weeks I set the class a number of problems requiring them to use the operation. It showed me that, while the majority of the class had a sound understanding of the use of long multiplication, their computation needed more work. (Teacher, Fifth class)

2. Recording assessment information

The purpose of an assessment determines what and how information is recorded. The teacher can make immediate use of much of the information gathered from **AfL** in structuring and supporting the child's learning. The teacher can judge what assessment information is important for recording in his/her notes. For example, the teacher would not record the minutiae of a class discussion but might note the unexpectedly enthusiastic contribution of a child who rarely participated. Similarly, the teacher is unlikely to note detailed errors in mathematics work but might record that much of the class showed evidence of requiring additional support in computation skills. The child too can record information about his/her progress in learning, for example as part of portfolio assessment.

In the case of **AoL**, the results of tests at the end of a learning period are usually recorded by the teacher, used to write reports, and stored in the child's Pupil File. Examples of assessment information recorded in this way include standardised test results and children's scores on teacher-designed tests.

3. Interpreting assessment information

The teacher's knowledge of the children in his/her class informs his/her interpretation of information from **AfL**. The teacher decides what information is valuable and how it can be used to enhance the child's learning. Information gained from **AfL** can yield a detailed picture of the child's learning and enable the teacher to make more informed decisions when planning for differentiated learning.

Children and their parents can also contribute to the interpretation of assessment information. Skills of self-assessment should be developed in all children so they can assess how well they have mastered skills and knowledge. (See Section 2, pp. 14-22). When the teacher's feedback emphasises criteria for successful learning it helps the child to assess his/her own work, and gives the child direction for future work. Parents can also help build a more complete picture of the child as a learner by talking to the teacher about how the child learns at home and about interests the child pursues outside school. It can also be useful for the teacher to know the nature of homework support provided by parents.

The interpretation of information from **AoL** can depend on the nature of the particular test or assignment. In standardised tests of literacy and numeracy, for example, meanings are attached to the scores that children achieve. Statistical tables rank the individual child's score relative to national norms, or to class-related or age-related norms. The teacher uses technical knowledge to interpret these norms, as well as his/her professional judgement. In interpreting the information, the teacher makes valid and reliable judgements based on sufficient evidence. (See Section 2, pp. 60-65.) For instance, a child's score that is strongly at variance with the child's previous general performance in that subject merits closer inspection. The teacher can also seek the views of colleagues in interpreting test scores. Helping parents to understand the information is another of the teacher's professional responsibilities.

4. Using assessment information

The principal use of information from **AfL** is to improve the child's learning on a daily basis. When the teacher notes a child's difficulties as they occur, or gains insight into a child's preferred ways of learning, the teacher can use this information to adapt his/her teaching to suit the child, as illustrated below:

I find that when I watch the children at work I learn something about their learning. It may be that Ciara opts out when I set groups to work, or Shane's question tells me he hasn't understood what I have just taught. I might plan to spend more time with Shane during a follow-on activity in the next lesson.
(Teacher, Second class)

AfL should actively involve the child as well as the teacher. In addition to sharing the learning intention and sharing the learning criteria, the teacher also provides feedback to the children. Feedback that focuses on the learning or task in hand indicates next steps, points to achievement and challenges, and has a positive impact on children's learning.

When I get my work back from Mrs Ryan she always marks something good I have written, but as well, she tells me some way I can make my writing better the next time. I like to know how I can improve my work. (Cathy, Fourth class)

Developing the skills of self-assessment in children is a gradual process that can begin at an early age. When the teacher asks children in an infant class what they like about their work or the work of other children he/she is taking the first steps in developing the children's assessment skills.

All assessment information should lead to improvement in the child's learning. Just how the information is used is related to the original purpose of the assessment activity. The purpose of **AoL** is often used to determine the extent to which curriculum objectives have been met. The teacher can use this information in different ways in planning the next steps in the child's learning. For instance, the assessment information may indicate that revision of content is required in a particular mathematical concept, or that greater emphasis needs to be placed on comprehension skills. This information is useful to the teacher when it is gathered during the course of the school year. Information gathered at the end of the year is also useful to the teacher in planning the programme for the next year. Aggregated information from standardised testing can inform whole-school planning in literacy and numeracy. A principal comments:

I reviewed the results of the standardised tests carried out in maths along with the staff member who has responsibility for the Mathematics Curriculum. It was clear that computation skills were not strong across the school so we invited in the Cuiditheoir who helped us as a staff to formulate strategies to improve the situation. We are implementing these this year, focusing intervention on first to third classes.

Information from **AoL** is used to compile a child's report, which can inform discussion between teacher and parents about the child's learning strengths and weaknesses.

5. Reporting assessment information

Teachers and children often share information from **AfL** on a daily basis. Children constantly communicate information to teachers. It can be a challenge for teachers to tune in to children's multiple channels of communication and understand what the information means for each child. Developing self-assessment skills and regular use of portfolios, rubrics and learning logs, empowers children as communicators of assessment information—information to which teachers can respond. (See Appendix A, pp. 84-85.)

For example, some of this information is communicated to parents through homework and this can promote continuity in learning between home and school. Teachers can highlight for parents some ways in which they can support the child's learning at home, particularly through activities in literacy and numeracy. Teachers can also communicate assessment information regularly to children, parents, other teachers, and other relevant professionals.

AoL information is generally communicated through parent/teacher meetings, report cards, staff meetings, and so on. Teachers can interpret assessment information for parents, highlighting how it can be used to improve the child's learning. Likewise, parents can respond to the outcomes of assessment. Thus there is a two-way process between teacher and parent.

There is a continuing process through which the child's formal learning experience in school interacts with the less formal developmental experience of the home and the family.
(*Primary School Curriculum, Introduction*, p. 21)

This section has defined and described two complementary approaches to assessment, Assessment for Learning and Assessment of Learning, which build on the assessment information presented in the *Primary School Curriculum*. Together, the two approaches provide teachers with evidence of children's progress and achievement in learning. This information enables teachers to make decisions about adjusting teaching to meet children's learning needs more effectively. In essence, **AfL** and **AoL** enable teachers to create the most supportive learning environments in which children are more motivated to learn.





SECTION 4

SCHOOL POLICY ON ASSESSMENT

Section 4

School policy on assessment

The purpose of this section is to assist schools in constructing their policy on assessment. The Education Act (1998) places a statutory obligation on every school to draw up a school plan.

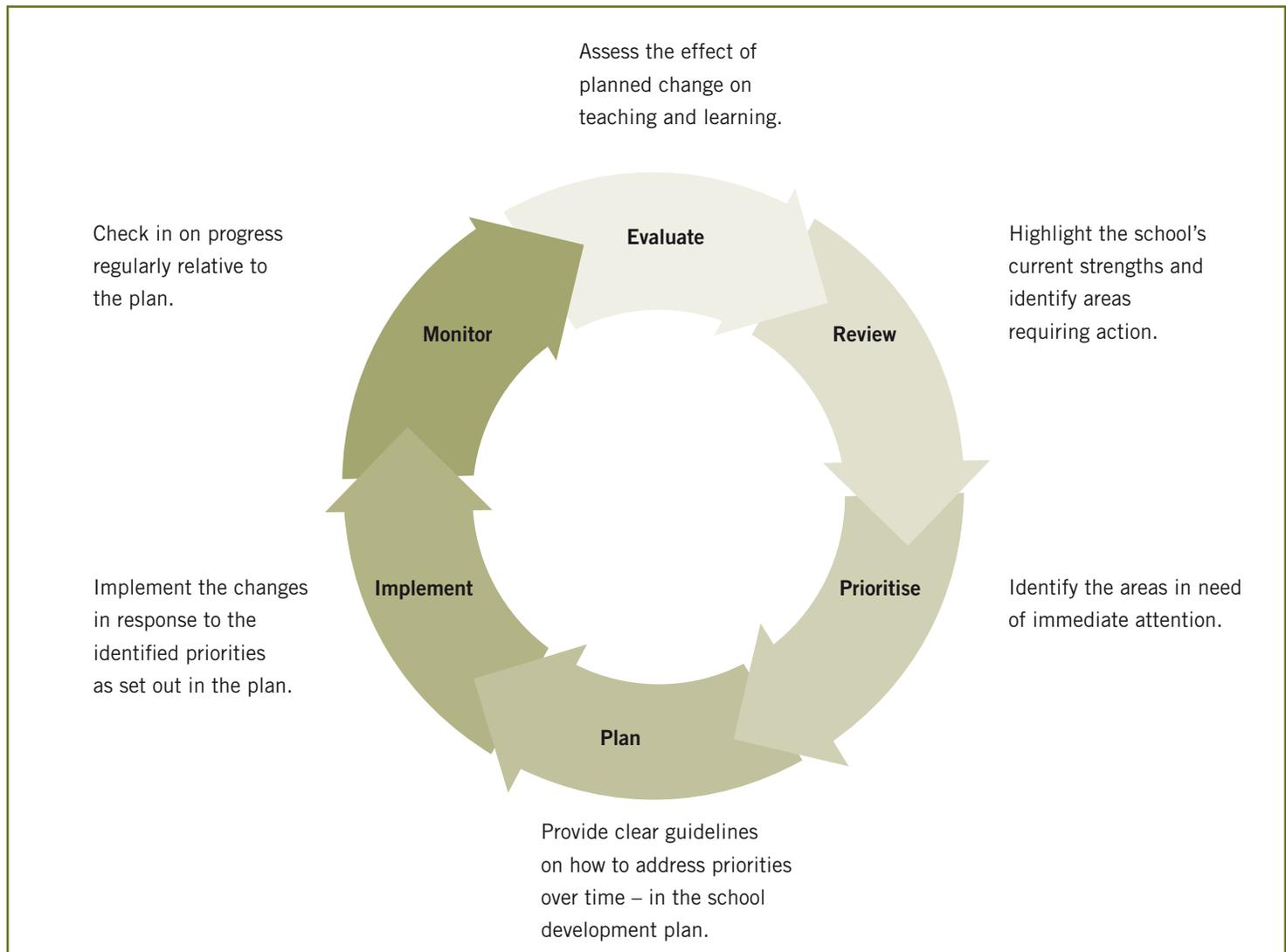
The School Plan is a statement of the educational philosophy of the school, its aims and how it proposes to achieve them. It deals with the total curriculum and with the organisation of the school's resources ... (Department of Education and Science, 1999, p. 8)

Therefore, the development of school policy on assessment is set in the wider context of school development and planning, and follows the School Development Planning model as shown in Figure 4. Further information on this model is available on the website of the School Development Planning Support (Primary) (SDPS) at <http://www.sdps.ie>.

The planning process is cyclical, enabling schools to enter the process at the stage relevant to their own unique situation. Some schools will have already developed an assessment policy and may be at the stage of reviewing their policy in light of these guidelines. Others may be at the design stage.

It is important that all members of the teaching staff are involved in developing, implementing and reviewing the assessment policy. It is also important that the policy formulated by schools is evaluated and reviewed regularly so that it can continually meet the changing needs of schools and their children. Parents should also be involved in the assessment policy. This creates a sense of ownership around the policy and allows for more effective implementation. Like all policies, a school policy on assessment reflects the core values and ethos of the school.

Figure 4: School Development Planning model



Content of the assessment policy

The Education Act (1998) requires schools to *regularly evaluate students and periodically report the results of the evaluation to the students and their parents*. In fulfilling this requirement, schools develop assessment procedures, which provide an accurate account of children's progress and achievement. The how, when and where of these procedures are outlined in the school's assessment policy.

Broadly speaking, the school's assessment policy contains a written statement of aims, and outlines how the school will use assessment to meet the needs of children, teachers, parents, and other relevant parties. It may include an outline of

- **how the policy was developed**
- **the policy's relationship to the school's mission statement and ethos**
- **the purpose of the policy**
- **staff roles and responsibilities for the policy**
- **the policy content—the assessment process in the school**
 - the purposes of assessment
 - assessment methods (gathering assessment information)
 - interpreting, recording, using, and reporting assessment information
- **implications for staff training and resources**
- **review and evaluation procedures.**

This is adapted from *Prompt questions towards drafting an assessment policy* on the website of SDPS (Primary) at www.sdps.ie/policies/Assessment.doc.

The assessment policy also needs to clarify when and how the school will use ICT in assessing children's learning, in recording and storing assessment information, and the rationale that governs this process.

Prompt questions that can facilitate the drafting of an assessment policy are available on the website of SDPS (Primary) at <http://www.sdps.ie>. It is important that the policy refers explicitly to all of the aspects highlighted above. The detail of the assessment process in the school should be a key element of the policy. (See the fifth bullet above.) In this regard, the policy needs to answer the following questions about the school's practices in assessing children's learning:

- **Why should children's learning be assessed?**
- **What should be assessed?**
- **When should assessment happen?**
- **How should children's learning be assessed?**
- **Where should assessment information be recorded?**
- **How should assessment information be recorded?**
- **With whom should assessment information be shared?**
- **How should assessment information be shared with others?**
- **For how long should assessment information be stored?**

The remainder of this section of the guidelines responds to these questions. The implications of legislation for policy and practice are highlighted throughout. (See Appendix C, pp. 95-96 for a detailed summary of the implications of the different Acts for schools.)

Why should children's learning be assessed?

As outlined in Section 1, assessment is part of good teaching and learning. It provides the teacher with information to make decisions about what and how the child is learning. This information in turn enables the teacher to identify the next steps in progressing the child's learning and adapt his/her teaching strategies and/or the learning activities, as appropriate. Using assessment information to inform teaching and learning in this way can make learning a more enjoyable and challenging experience for the child, and can contribute to a more enriching and rewarding professional experience for the teacher.

What should be assessed?

The school's assessment policy should address each curriculum area/subject of the *Primary School Curriculum*, and encompass the knowledge the child acquires, the skills the child learns, the attitudes and values the child develops and the dispositions the child shows. It is important that all curriculum areas/subjects are assessed by appropriate methods. Certain methods are more suited to certain assessment purposes and to certain subjects as is noted in Section 2 of these guidelines.

Deciding what to assess is based on the curriculum objectives in each curriculum area/subject and on what the teacher intends to help the children to learn. The teacher uses appropriate assessment methods to measure the extent to which children have achieved these objectives. (See examples of assessment methods in Section 2.)

When should children's learning be assessed?

Assessment is an ongoing process throughout the child's primary school experience. This process is shaped by the child's age and stage of learning and development. The child's perspective on the world and on his/her experience of learning is more holistic in the early years of primary school. At this stage, the separation of learning into different subjects is largely irrelevant to the child. The curriculum highlights the importance of connected learning experiences for the young child and recognises that, as children get older, subject based learning becomes more meaningful for them. A school policy on assessment should reflect this growth and change in how children approach and experience learning, and the assessment methods the school uses should vary at different stages of children's development. The policy should also ensure that judgements of children's learning and development are made over a period of time rather than sporadically, and that assessment information is used to provide intervention and support appropriate to the child's stage of learning.

Arising from the Education Act (1998) and the Education for Persons with Special Educational Needs (EPSEN) Act (2004), the school needs to ensure that the educational needs of all children, including those with a disability or other special educational needs are identified and provided for. The school's assessment policy should therefore also refer to the role of diagnostic assessment, and specify the diagnostic instruments to be used as well as the timescale of interventions. Similarly, the school's procedures in identifying and responding to the needs of exceptionally able children should be specified. Under the terms of the Education for Persons with Special Educational Needs Act (2004) each child assessed with a special educational need should have a personal Education Plan. The school's assessment policy should indicate the procedures for drawing up and using this plan to support the child's learning. The child's parents, the Special Educational Needs Organiser (SENO) with responsibility for the school concerned and *such other persons as the principal considers appropriate* (EPSEN Act, 2004, Section 9 (a)) must be consulted in the preparation of the Education Plan.

Assessment in the early years

Assessment in the early years is an informal and natural part of the teacher's interactions with children. Much assessment takes place through observations of the child, discussions with the child, and active listening to the child in a variety of learning situations.

Because the early years provide the foundation for subsequent learning it is important to identify children who experience learning difficulties as soon as possible. To facilitate this, the school should implement a screening policy in the second school year, preferably by February of the second term. Screening involves teacher observation of children and the administration of group and individual tests of early literacy, numeracy and developmental skills. The information acquired through screening tests, together with day-to-day observation by the infant class teacher, facilitates a more accurate assessment of the child's learning strengths and needs. This is particularly important in the case of younger children when learning does not necessarily follow a sequential pattern.

Screening facilitates the early identification of learning difficulties and allows for effective communication with the child's parents. Early identification enables the teacher to organise appropriate supports based on the *Staged Model of Intervention* (National Educational Psychological Service) (see p. 97). This model involves the teacher working with the child's parents, consulting with the NEPS psychologist, and, where necessary, organising learning support or resource teaching and/or access to various therapies for the child. *The Learning Support Guidelines* (2000) provide information on the development of a whole-school plan for learning support, and emphasise the importance of implementing early intervention programmes.

More detailed guidelines on assessment in the early years will be published as part of the *Framework for Early Learning* in 2008.

Assessment in middle and senior classes

As with younger children, assessment methods used with children in the middle and senior classes should be set out in the school policy. In addition, the school's standardised testing arrangements should be documented. **Schools must meet the minimum requirement of administering standardised tests in literacy and numeracy at the end of first class/beginning of second class and at the end of fourth class/beginning of fifth class.** The assessment policy should state what tests will be used, when these tests will be administered, and how the results will be used.

The timing of the tests, whether at the end or at the beginning of the relevant class, will be dictated by the purpose of the tests. In general, the earlier an assessment is conducted for diagnostic purposes the more likely it is to lead to intervention that will benefit the child. Testing at the beginning of the year enables schools to develop appropriate interventions for certain children, while testing at the end of the year allows schools to make placement and progress decisions based on assessment results. Although the variation in the timing and sequencing that teachers choose when covering different elements of the curriculum with different classes can pose challenges in deciding when tests should be administered during the school year, the purpose of the assessment will be the overriding consideration.

How should children's learning be assessed?

Using information gathered from a variety of assessment methods, over a period of time, can help the teacher to create a detailed picture of a child's progress and achievement. As already noted, this is particularly relevant in the case of younger children as their learning can be highly contextualised, resulting in less reliable assessment information (including from test scores) than is the case with older children. Knowledge of the context in which the assessment takes place enriches the teacher's interpretation of the information gathered. This makes it easier for him/her to understand the learning process from the child's perspective.

Section 2 of these guidelines provides schools with information on a broad range of assessment methods. It is important that the methods selected are appropriate to the purpose of the assessment and to the children's ages and developmental stages. The Equal Status Act (2000) also has implications for schools in making this selection. This Act promotes equality and prohibits certain kinds of discrimination, for example discrimination on the grounds of religion, age, disability, or membership of an ethnic community. Therefore, the methods of assessment used to gather information on children must not in any way discriminate against them. Schools need to be aware of the effects of context, culture and language on assessment and seek to ensure that assessments are carried out in circumstances that are appropriate for children. For example, staffs need to identify and address aspects of assessment that are particularly relevant to children with special educational needs, and provide appropriate alternatives as required. In the case of some children, the teacher may have to explore ways of recognising

progress and achievement that are sufficiently sensitive to each child's level of ability. This might involve placing a greater value on how the child experiences and responds to an activity, or providing the child with additional time to complete an activity. Alternatively, it might involve the child requiring less support to complete an activity. More information on assessment for students with general learning disabilities is available in *Guidelines for Teachers of Students with General Learning Disabilities – Introduction* (NCCA, 2007), and on the NCCA website at www.ncca.ie/uploadedfiles/Publications/SEN_introduction.pdf.

Where should assessment information be recorded?

In fulfilling the requirements of the Education Act (1998) schools create and maintain individual records of children's learning while they are attending school. They provide parents with assessment reports which contain accurate and clearly accessible information about their children's progress and achievement. Three kinds of records are maintained by the school:

- the teacher's day-to-day records
- the Pupil File
- the Report Card.

Teacher's Records

The teacher normally keeps his/her own day-to-day record of observations, remarks, incidents, etc. as they occur in the classroom and playground. This kind of record provides the teacher with additional information about the child, which helps him/her to meet the needs of individual children more effectively. It also informs the teacher's classroom organisation.

Pupil File

The Pupil File is used by teachers to record information on all aspects of the child's learning and development. The File provides a concise educational history of the child's progress and achievement during the course of each school year. One file per child should be maintained. It should be used to store documents filled in by the class teacher, the learning support teacher, and the resource teacher (where applicable). The main functions of the Pupil File are to

- support both teachers and children in monitoring and structuring learning
- provide information for teachers when preparing reports for parents
- provide information for teachers who will have subsequent responsibility for the child's education.

The Pupil File takes account of the child's strengths and needs, the progress he/she has made, and any areas of learning and development that need particular attention. Other useful and pertinent information may also be stored in the Pupil File, such as home contact details, enrolment data, school attendance record,

medical history (where appropriate), information concerning experiences at pre-school (if made available to the school on transfer), and the products of assessment (for example, completed standardised test booklets). The school may choose to create the Pupil File in written form (hard-copy) or in electronic form. If it is stored electronically the file should be backed up with a hard copy.

Report Card

The Report Card is an important element of the Pupil File in which salient information about the child's educational progress and achievement (including interests, strengths and needs) is recorded. The key purpose of the Report Card is to share assessment information with parents in an accessible format so that they can use the information to help their children to learn, and thus strengthen the link between school and home.

The Report Card allows for the recording of assessment information twice a year. The cards are completed by all who teach the child during the course of his/her primary school education. The results of children's assessments are recorded to facilitate the sharing of the most relevant and useful information about a child's progress and achievement with parents, teachers, and other professionals concerned with the child's education. The NCCA is currently working with schools to develop national report card templates.

How should assessment information be recorded?

Assessment information can be recorded in different forms, including marks, grades, checklists, profiles, and narrative comments. (See Section 2.) Teachers need to bear in mind that comments should be objective and instructive. It is recommended that comments entered in the Pupil File and in the Report Card should be phrased in a positive manner in order to support further learning and development. Schools should keep the possible readership of these documents in mind when completing them.

The assessment information contained in the Pupil File and on the Report Card should be readily accessible and comprehensible to all relevant interests. This will entail clarity and consistency in recording and reporting assessment information from teacher to teacher within the school and in reporting to parents at the different stages of their children's primary school education. Similar consistency and clarity is needed in sharing assessment information between schools, especially so given the increasing mobility of the school population.

With whom should assessment information be shared?

The Data Protection (Amendment) Act (2003) establishes parents' rights to regular information on the progress and achievement of their children under the Education Act. The Act entitles the parents of students under the age of eighteen (and students themselves when aged eighteen or older) to access all personal data relating to these students, whether stored in any electronic form or in hard and/or manual copy in a structured filing system in the school. (Any assessment information or personal data recorded by the school, including both formal school records and less formal records, whether in automated or manual form, comes under the terms of this Act.)

Legislation also requires the school to report assessment information when requested to other teachers, other schools and the children themselves, where appropriate. The school is also obliged to share assessment information with other individuals who are involved in the child's education. These include DES inspectors, National Educational Psychological Service (NEPS) psychologists, Special Educational Needs Organisers (SENOs), and Education Welfare Officers, as well as other professionals such as speech and language therapists and occupational therapists. This sharing of information between professionals enriches the child's educational experiences. In developing their policy on assessment schools need to outline how they will ensure that a full and accurate summary of the progress and development of each child is available to the relevant people referred to above.

Appendix D (p. 97) outlines the roles of various organisations in working with the school to support children's learning.

How should assessment information be shared with others?

Assessment information presented should be accessible to all relevant parties. When formulating the school's assessment policy, the school needs to bear the following in mind:

- **To whom will the school report assessment information?**
- **How will assessment information be reported?**
- **How frequently will assessment information be reported?**
- **What terminology will be used to report assessment information (that is, what terminology is familiar to members of staff and also to parents)?**

Assessment results should be reported to parents **twice during each school year. One of these events should include a written report, preferably at the end of the school year.** The other can include a meeting or a meeting and a written report. The school can decide the most appropriate times for these reports and meeting, and include this timetable in the assessment policy. Outside these formal meetings, teachers may also meet parents informally. The assessment policy should outline clearly the decisions the school takes concerning the frequency and mode of reporting.

Schools may find it useful to agree a format for parent/teacher meetings. A *Meeting guide* could be developed to support teachers in conducting the meetings. This could address issues such as making best use of the time available, presenting the child's report in as positive and constructive a light as possible, using language that all parents understand and avoiding the use of technical or specialist terms, and providing guidelines to parents on ways they can support their children's learning. In supplementing the DVD for parents, *The What, Why and How of children's learning in the primary school* (NCCA, 2006), the NCCA will develop a resource for schools to help parents understand and use assessment information to support their children's learning. This resource will include information on understanding standardised test scores.

The principal should approve access to assessment information by persons other than the child's parents (as referred to in the previous subsection). Such access may need to be accompanied by commentary or interpretation by a teacher or by the principal.

Finally, procedures for transferring relevant information between primary schools (if the child changes primary schools), as well as transferring relevant information between primary and post-primary schools, should also be incorporated into the policy.

For how long should assessment information be stored?

The school's assessment policy should outline how and where assessment information on individual children is stored. Children can request assessment information for a number of years (not yet specified in legislation) after they leave schools. It is important, therefore, that schools store this information safely to facilitate access to it by former pupils at any stage until their twenty-first birthday. The assessment information could be requested of schools under the Data Protection (Amendment) Act (2003). Information stored on computers must be protected so that there is restricted access to it. Back-ups of the information need to be created, clearly labelled, and, likewise, stored safely.



APPENDICES & BIBLIOGRAPHY



Appendix A

Further information on classroom assessment methods

This appendix presents supplementary information on self-assessment, questioning, and teacher-designed tasks and tests as outlined in Section 2. This includes information on

Self-assessment

- Rubrics
- Thumbs up/thumbs down
- Traffic lights
- Plus, Minus and Interesting (PMI) diagrams
- Talk partners/buddies
- Ladders

Questioning

- Types of questions

Teacher-designed tasks and tests

- Planning for a classroom based task
- Types of test questions.

Appendix B provides some photocopiable resources for use with self-assessment, portfolio assessment, and teacher-designed tasks and tests. The NCCA's ongoing work in supporting assessment in the *Primary School Curriculum* will be published online on the ACTION (Assessment, Curriculum, and Teaching Innovation On the Net) website accessed at <http://www.ncca.ie>.

Self-assessment

Rubrics

Section 2 provides examples of a rubric being used for self-assessment (p. 15) and for conferencing (p. 25). In brief, a rubric is an assessment tool which describes varying levels of quality in a specific piece of work. It can be used to assess simple learning activities as well as more complex tasks. It can also be adapted for use across class levels.

A rubric can be designed by the teacher himself/herself or collaboratively by the teacher and the children. When a rubric is introduced initially to a class it should be in a simple form, and be used with a particular area of learning until the children become familiar with it and how it is used. Simple rubrics using faces or other symbols to indicate 'levels of satisfaction' can be used with infant classes. Children can be helped to assess their own work in very simple ways by verbally commenting on what they have done, saying whether they are pleased with it, what they like or don't like about it, or what they would like to do better next time. Rubrics can also be used by the teacher to inform the children of the criteria by which their work will be judged.

A rubric has two essential features: (1) a list of criteria, i.e. the important elements of the work, and (2) levels of quality, i.e. what the elements of the work look like at each of the levels of quality. Below is an example of a rubric developed by Airasian (2000) for scoring pieces of children's writing.

A scoring rubric - writing to express personal ideas

Points	What the points mean
3	<ul style="list-style-type: none"> • <i>Development</i>: consistently develops ideas into a complete, well-developed whole • <i>Organisation</i>: sequences in a logical and effective manner • <i>Focus on audience</i>: anticipates and answers the audience's needs and questions • <i>Language</i>: consistently uses language that enhances writing.
2	<ul style="list-style-type: none"> • <i>Development</i>: partially develops ideas but does not provide a complete, well-developed whole • <i>Organisation</i>: purposely orders ideas for the reader to follow • <i>Focus on audience</i>: usually anticipates and answers the audience's needs and questions • <i>Language</i>: frequently uses language to enhance the writing.
1	<ul style="list-style-type: none"> • <i>Development</i>: rarely develops ideas, produces poorly-developed and incomplete ideas • <i>Organisation</i>: usually orders ideas but some interruptions in the flow • <i>Focus on audience</i>: occasionally anticipates and answers the audience's needs and questions • <i>Language</i>: sometimes uses language to enhance the writing.
0	<ul style="list-style-type: none"> • <i>Development</i>: no development of ideas into a complete whole • <i>Organisation</i>: rarely evidences logical ordering of ideas • <i>Focus on audience</i>: does not attempt to anticipate and answer the audience's needs and questions • <i>Language</i>: fails to use language to enhance the writing.

Thumbs up/thumbs down

Thumbs up/thumbs down involves children indicating their level of understanding or their feelings by showing their thumbs pointing up or down.

Traffic lights

Traffic lights are similar to thumbs up/thumbs down. They can help children to indicate their level of understanding or feelings by showing the appropriate coloured card:

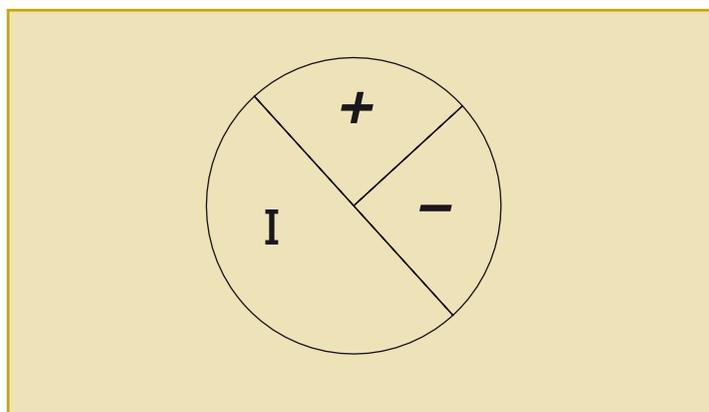
- red card = I don't understand.
- amber card = I'm not quite there yet.
- green card = I've got it!

The children can use the traffic lights at any time during a lesson. This technique is particularly useful during group work and whole class sessions, and also with young children.

Plus, Minus and Interesting (PMI) diagrams

PMI diagrams can be used by children to assess their own work by identifying plus, minus and interesting elements of their work. This technique can help them to identify what worked and what did not work so well for them in their learning. PMI diagrams can be drawn as graphs, charts or tables. Below is an example of a PMI chart.

Sample PMI chart



Talk partners/buddies

Using talk partners/buddies involves children sharing information with each other about their own learning. For example, children might identify three new things they learned, what they found easy, what they found difficult, and something they would like to learn in the future with their talk partners/buddies. Ideally the talk partner/buddy would be someone with whom the child is confident and happy to share his/her thoughts and ideas.

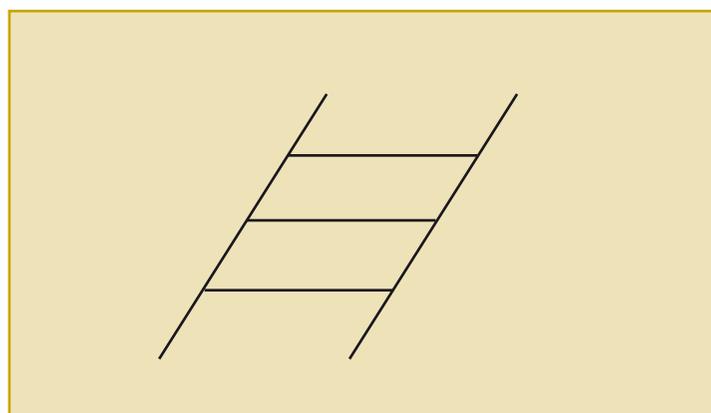
Ladders

A ladder is a self-assessment tool that can help children to rank, prioritise, identify areas of clarity and parts of their work where they are experiencing difficulty. Children make decisions about their learning by responding to questions such as:

- What part of the work was the most important?
- What part of the work did I understand best?
- What part of the work did I not understand?
- What part of the work was difficult?

They rank the responses to these questions on the ladder.

Sample ladder



Questioning

The following tables outline different types of questions based on Bloom's taxonomy (Krathwohl, 2002), and provide samples of each type.

Bloom's taxonomy of questioning

Evaluation
Synthesis
Analysis
Application
Understanding
Knowledge

Knowledge

Question cues		Sample questions
tell	list	What happened after ...? How many ...?
define	name	Who was it that ...?
when	where	Can you name the ...? Describe what happened at ...
identify	show	Who spoke to ...? Can you tell why ...?
state	locate	Find the meaning of ... What is ...?
relate	who	Which is true or false ...?

Understanding

Question cues		Sample questions
retell	summarise	Can you write in your own words ...? Can you write a brief outline ...?
describe	explain	What do you think could have happened next ...? Who do you think ...?
discuss	interpret	What was the main idea ...? Who was the key character ...?
outline	predict	Can you distinguish between ...?
restate	compare	What differences exist between ...? Can you provide an example of what you mean ...?
estimate	contrast	Can you provide a definition for ...?

Application

Question cues		Sample questions
solve	show	Do you know another instance where ...? Could this have happened in ...?
use	illustrate	Can you group by characteristics such as ...? What factors would you change if ...?
construct	complete	Can you apply the method used to some experience of your own ...?
examine	classify	What questions would you ask of ...?
apply	demonstrate	From the information given, can you develop a set of instructions about ...?
calculate	modify	Would this information be useful if you had a ...?

Analysis

Question cues		Sample questions
analyse	distinguish	Which events could have happened ...? If ... happened, what might the ending have been?
compare	contrast	How was this similar to ...?
investigate	categorise	What was the underlying theme of ...? What do you see as other possible outcomes ...?
identify	separate	Why did ... changes occur? Can you compare your ... with that presented in ...?
order	explain	How is ...similar to ...? What was the problem with ...?
connect	infer	What evidence can you list for ...?

Synthesis

Question cues		Sample questions
create	invent	Can you design a ... to ...? Why not compose a song about ...?
compose	predict	Can you see a possible solution to ...? If you had access to all resources how would you deal with ...?
plan	construct	Why don't you devise your own way to deal with ...?
design	imagine	What would happen if ...? How many ways can you ...?
propose	devise	Can you create new and unusual uses for ...? Can you develop a proposal which would ...?
formulate	combine	

Evaluation

Question cues		Sample questions
judge	select	Is there a better solution to ...? Judge the value of ...?
choose	decide	Can you defend your position about ...?
justify	debate	Do you think ... is a good or a bad thing? How would you have handled ...?
verify	argue	What changes to ... would you recommend? What would you predict/infer from ...?
recommend	assess	How effective are ...? What do you think about ...?
rate	prioritise	How would you create/design a new ...?

Teacher-designed tasks and tests

Planning sheets

Planning sheets can be useful when preparing to use tasks as an assessment method. A sample planning sheet is shown below with a photocopiable version provided in Appendix B, p. 94.

Class(es)	Date	Subject(s)	Curriculum objectives
What class(es) are the children in?	What date will the children complete the task(s)?	What subject(s) is being assessed?	Which curriculum objectives are being assessed through the task(s)?
Resources	Time	Organisation	Actions
What resources do the children need?	How long will it take to complete the task(s)?	What classroom organisation (whole-class, group, pair, or individual) is most suitable from the point of view of children's involvement and the need to carry out teacher assessment effectively and efficiently?	What are the main actions that the teacher needs to take from the initial presentation to the children, through the various stages of the task(s), to the conclusion?
Teacher's notes:			

Sample test questions

Examples 1-11 below illustrate a range of question types which teachers may find useful in designing paper and pencil tests.

Example 1: Closed test questions

Closed test questions are usually used to elicit a specific response that is either correct or incorrect, as in the following sample.

Sample closed test question: 2, 4, 8, ... What will the next number be? The answer 10 might indicate that the connection between the numbers was thought to be a simple increase of 2, instead of doubling the last one.

Example 2: Open test questions

Open test questions allow a wider range of responses than closed questions as shown in the following sample.

Sample open test question: Name one of the Loughs on the River Shannon.

Example 3: Multiple-response questions

Multiple-response questions elicit a range of responses and can be solved in a variety of ways as in the following sample.

Sample multiple-response question: + = 9

Example 4: Free response questions

Free response questions allow an even wider range of responses than multiple-response questions. Questions which require narrative responses can provide the teacher with information about the depth and breadth of the child's understanding, the child's thinking, and the areas where he/she may benefit from further support or work.

Sample free response question: Write a paragraph about the purpose of the soup kitchens in the Great Famine.

It is advisable to structure the question in order to identify whether the child displays real understanding of the topic or issue addressed in the question, rather than encouraging an unstructured reply that may hide gaps in the child's knowledge, for example:

Sample free response question: Name three factors that contributed to the development of the Great Famine.

Example 5: Correcting responses

An interesting variation of test questions is for the teacher to prepare well-written but conceptually flawed responses or answers for the children to correct and edit. These responses may contain common misunderstandings, correct but incomplete responses, or completely incorrect facts and ideas.

Example 6: Matching

The matching format is an effective way to test the child's recognition of the relationships between words and definitions, events and dates, categories and examples, and so on.

Example 7: Multiple-choice questions

Responses to multiple-choice questions provide information on the child's ability to discriminate between the correct response and incorrect alternatives. As such, the child's response demonstrates his/her ability to recognise the correct response rather than to produce it.

Sample multiple-choice question:

297 + 352 = 649

The number fact in bold text is true.

Which one of the following number facts is true?

- a) $397 + 362 = 659$
- b) $649 - 352 = 317$
- c) $29.7 + 35.2 = 6.49$
- d) $287 + 342 = 629$

Example 8: True-false questions

True-false questions can be used to gather information about common misconceptions by children.

Sample true-false question:

Look at the sum. Is the answer true or false?

Put a tick (✓) in the box if you think **yes, the answer is true.**

Put an X in the box if you think **no, the answer is false.**

$$\begin{array}{r} 18 \\ +23 \\ \hline 311 \end{array} \quad \boxed{}$$

The teacher may add an 'explain' column in which the child writes one or two sentences justifying his/her response.

Example 9: Questions presented in a novel way

Presenting questions in an unconventional form can be used to test children's understanding of a particular concept.

Sample question presented in a novel way:

To assess a child's understanding of place value present him/her with misaligned columns of numbers.

$$\begin{array}{r} 4 \\ 35 \\ +24 \\ \hline \end{array}$$

Ask him/her to read the numbers and then to write the answer. When finished ask the child to read the answer aloud. Ask him/her to justify the answer using a probing question, such as *does that sound right?*

Example 10: Scales

Scales can be used to help children respond to open questions. This provides some structure for children while still enabling them to choose from a range of responses.

Below is an example of a scale to help children respond to a piece of art.

Tulips by Afternoon Light, unknown.



Look carefully at this painting. Record your response to it on a 1-7 scale by circling a number. For example, what time of the day is it in the painting? If you think it is morning, give it a 1. If you think it is night, give it a 7. If you think it is somewhere in between, choose a 2, 3, 4, 5 or 6. Write down a reason for your answer after you have circled a number.

What kind of light is in the painting?

Bright? 1 2 3 4 5 6 7 Dark?

Give a reason for your score.

Are the edges of things

Clear and sharp? 1 2 3 4 5 6 7 Soft and fuzzy?

Give a reason for your score.

Is the paint

Thin? 1 2 3 4 5 6 7 Thick?

Give a reason for your score.

Is the mood of the picture

Happy? 1 2 3 4 5 6 7 Sad?

Give a reason for your score.

Appendix B

Photocopiable resources

This appendix provides some photocopiable resources which can be used with self-assessment, portfolio assessment, and teacher-designed tasks and tests. These include

- A **Know, Want to know, Learned (KWL) grid**. By completing the grid over time the child focuses on what he/she already knows, what he/she would like to know, and what new things he/she learns. (See Section 2, pp. 20-21 for information on self-assessment.)
- A **reflection template** which can be used by the child to help him/her decide whether or not to include a particular piece of work in his/her portfolio. (See Section 2, pp. 30-33 for information on portfolio assessment.)
- A **planning sheet** which can be used by the teacher to help him/her prepare for using tasks to assess children's learning. (See Section 2, pp. 54-58 for information on teacher-designed tasks and tests.)

Child:		Date:
K (What I k now already)	W (What I w ant to know)	L (What I have l earned)



Complete at the start of the lesson



Complete at the end of the lesson

Teacher's notes:

Child:	Date:
<p>Description of the work:</p> <p>What I tried to do:</p> <p>What I did:</p> <p>What I learned:</p> <p>What I like about this piece of work:</p> <p>What I would need to work on:</p> 	

<p>Teacher's notes:</p>
--

Class(es)	Date	Subject(s)	Curriculum objectives
Resources	Time	Organisation	What to do

Teacher's notes:

Appendix C

Legislative requirements of schools in relation to assessment policy

In developing a school assessment policy, schools must be guided by various legislative requirements. **At the time of publication** these are enshrined in

- the **Education Act (1998)**
- the **Data Protection (Amendment) Act (2003)**
- the **Equal Status Act (2000)**
- the **Education (Welfare) Act (2000)**
- the **Education for Persons with Special Educational Needs Act (2004)**
- the **Freedom of Information Acts (1997, 2003)**.

This appendix highlights the requirements for schools, **at the time of publication**, arising from each of these pieces of legislation.

Education Act (1998)

The **Education Act (1998)** requires principals and teachers to *regularly evaluate students and periodically report the results of the evaluation to the students and their parents*. The implications of this requirement for teachers and schools include

- developing assessment **procedures** which provide an accurate account of children's progress and achievement
- creating and maintaining individual **records** of children's progress and achievement while they are attending the school
- providing parents with assessment **reports** which contain accurate and clearly accessible information about their children's progress and achievement.

The Education Act also places a responsibility on schools to ensure *that the educational needs of all students, including those with a disability or other special educational needs are identified and provided for*. Specific responsibilities for schools include identifying and responding to pupils with learning difficulties by liaising with the National Educational Psychological Service (NEPS), where appropriate, and co-ordinating the monitoring of pupils' progress and achievement (by the class teacher, the learning support teacher, the resource teacher, and other professionals).

Data Protection (Amendment) Act (2003)

Any assessment information or personal data recorded by the school, including both formal school records and less formal records, whether in automated or manual form, is subject to the terms of the **Data Protection (Amendment) Act (2003)**. The right of parents to regular information on the progress and achievement of their children under the Education Act is supported by the Data Protection (Amendment) Act (2003). The latter entitles parents of

students under the age of eighteen (and students aged eighteen and over) to access all personal data relating to the students, whether stored in any electronic form or in hard and/or manual copy in a structured filing system in school. Information on these entitlements is available on the website of the Data Protection Commissioner at <http://www.dataprivacy.ie>. In addition, under the Data Protection Acts 1988 and 2003, parents have a right to all assessment information about their children in intelligible form and they have the right to know the source of the assessment information, for example the class teacher or learning support teacher.

The following designated persons are also entitled to direct access to individual, group or class assessment information:

- the child's class teacher
- the class teacher, within the same school, to whom the child is transferring
- the principal
- learning support and resource teachers
- the DES inspector
- the NEPS psychologist
- the Education Welfare Board and its officers
- other relevant professionals (including a Special Educational Needs Organiser (SENO), an occupational therapist, a speech and language therapist, a teacher of deaf children).

In addition, assessment information on an individual child may be provided to another school, primary or post-primary, to which the child is transferring.

Further implications of the Data Protection (Amendment) Act (2003) require schools to state in their assessment policy

- what information is being gathered, for example a percentile on a standardised reading test at the end of each school year
- why the information is being gathered, for example to identify children who would benefit from learning support
- how the information will be gathered, for example through the use of standardised reading tests and/or diagnostic reading tests
- how the information will be stored, for example in hard copy or electronically.

The school policy also needs to identify where the files will be stored and for how long.

A basic checklist to ascertain if a school is fulfilling the requirements of the Data Protection (Amendment) Act (2003) is available on the website of the Data Protection Commissioner at <http://www.dataprivacy.ie/ViewDoc.asp?fn=/documents/responsibilities/3k.htm&CatID=55&m=y>.

Equal Status Act (2000)

The **Equal Status Act (2000)** has implications for the assessment policy in schools in that it promotes equality and prohibits certain kinds of discrimination, for example discrimination on the grounds of religion, age, disability, or membership of an ethnic community. Therefore, the form of assessment used to gather information on children must not in any way discriminate against them. Teachers need to be aware of bias when English language intelligence tests are administered with children whose first language is not English. Schools need to be aware of the effects of context, culture and language on assessment and seek to ensure that the processes of assessment are carried out in circumstances that are appropriate for children. For example, staffs need to identify and address any barriers to assessment for children with special educational needs, and provide appropriate alternatives as required. Schools also need to ensure that the chosen methods of assessment are appropriate, given the ages and developmental stages of children.

Further information on the Equal Status Act (2000) is available on the website of the Equality Authority at <http://www.equality.ie>.

Education (Welfare) Act (2000)

Section 28 of the **Education (Welfare) Act (2000)** places a responsibility on the principal of a school to pass on information regarding the welfare of a child to other professionals involved in supporting his/her education. The Education (Welfare) Act 2000 (Section 28) (Prescribed Bodies) Regulations 2005 ensures that information can be shared in the following instances when the purpose of sharing the information is to monitor and further the child's learning:

- between schools when a child transfers (primary to primary and primary to post-primary)
- between a school and the National Council for Special Education when seeking the Council's assistance
- between a school and the National Education Welfare Board, the DES Inspectorate, the National Educational Psychological Service, and so on.

Education for Persons with Special Educational Needs Act (2004)

Under the terms of the **Education for Persons with Special Educational Needs Act (2004)** schools are required to assess children who are judged not to be benefiting from the education programme provided by the school, in order to understand the reasons for this. If the assessment establishes that the child has special educational needs the principal is responsible for preparing *an education plan for the appropriate education* of the child. He/she prepares the plan in consultation with the child's parents and can consult with the local Special Educational Needs Organiser.

The Act outlines the content headings that the school should use in developing the education plan. These include

- the nature and degree of the child's
 - abilities, skills and talents
 - special educational needs and how those needs affect his/her educational development
- the present level of educational performance of the child
- the special educational needs of the child
- the special education and related support services to be provided to the child to enable the child
 - to benefit from education and to participate in the life of the school.
 - where appropriate, to make the transition effectively from pre-school education to primary school education or from primary school education to post-primary education.

The education plan should also include the goals which the child is to achieve over a period not exceeding twelve months.

Freedom of Information Acts (1997, 2003)

In supporting children's learning and development schools store assessment information and personal data on each child in both formal school records and less formal records. Under the terms of the **Freedom of Information Act (1997)** and the **Freedom of Information (Amendment) Act (2003)** information held about an individual must be made available to that individual on request. In addition, the person has a right to have the information relating to himself/herself amended where it is found to be incomplete, incorrect or misleading. He/she also has a right to obtain reasons for decisions affecting himself/herself. Schools are not currently included under the terms of the Freedom of Information Acts (1997, 2003). Were this to change, these Acts would have implications for a school's assessment policy and practices, particularly in the case of recording and storing assessment information.

Appendix D

Roles of external organisations in supporting children's learning

In developing an assessment policy, schools should consider the roles of a number of organisations in supporting children's learning. These include

- the **National Educational Psychological Service (NEPS)**
- the **National Council for Special Education (NCSE)**
- the **National Educational Welfare Board (NEWB)**.

National Educational Psychological Service

The **National Educational Psychological Service (NEPS)** assists the school in providing *education to students which is appropriate to their abilities and needs ...* (Education Act (1998) p. 9). A close working relationship between the school and the relevant NEPS psychologist is therefore essential. Schools need to name their NEPS psychologist in their school policy and elaborate on assessment approaches and referral procedures outlined in the NEPS guideline documents. The referral process ought to be included in the assessment policy with copies of the forms, which NEPS supplies, filed with the policy. Reasons for referrals need to be specific and clear.

NEPS has developed a three-stage model in order to help schools accommodate children with special educational needs. (See Table 5.) This model should be included in the school policy so that all involved are aware of their responsibilities with regard to children.

Table 5: Staged model of intervention

Three Stages, One Process		
Stage 1 Whole Class Stage	Stage 2 School Support Stage	Stage 3 Consultation/ Assessment Stage
Parents	Parents	Parents
Teacher(s)	Teacher(s)	Teacher(s)
Child	Child	Child
Consultation with NEPS psychologist	Support Teacher(s) Consultation with NEPS psychologist	Direct involvement of NEPS psychologist Other Professionals
Following consultation with the NEPS psychologist acute cases may be fast-tracked to Stage 3.		

Further information on the work of the NEPS is available on the website of the Department of Education and Science at <http://www.education.ie>.

National Council for Special Education

The **National Council for Special Education (NCSE)** liaises with schools to make sure that children with special educational needs have access to education and related support services, using a network of Special Educational Needs Organisers (SENOs).

SENOs work with schools and parents in supporting the education of children with special educational needs in the following ways. They

- process schools' applications for resource teacher support and decide on the level of support appropriate to the school
- process schools' applications and decide on the appropriate level of special needs assistant support for children with disabilities
- examine schools' applications for special equipment/assistive technology
- examine schools' applications for transport arrangements for children with disabilities and make recommendations to the Department of Education and Science
- identify the appropriate educational setting for individual children with special educational needs.

Further information on the work of the NCSE is available on the organisation's website at <http://www.ncse.ie>.

National Educational Welfare Board

The **National Educational Welfare Board (NEWB)** is the national agency with responsibility for encouraging and supporting regular school attendance. The Board was established to ensure that every child attends school regularly, or otherwise receives an education or participates in training. The Board works with schools to assist them in meeting their obligations under the Education (Welfare) Act (2000) through a network of Education Welfare Officers.

In carrying out their work, these officers may require access to assessment information held by the school on a particular child.

Further information on the work of the NEWB is available on the organisation's website at <http://www.newb.ie>.

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