Primary Professional Development Service

Differentiation in action!
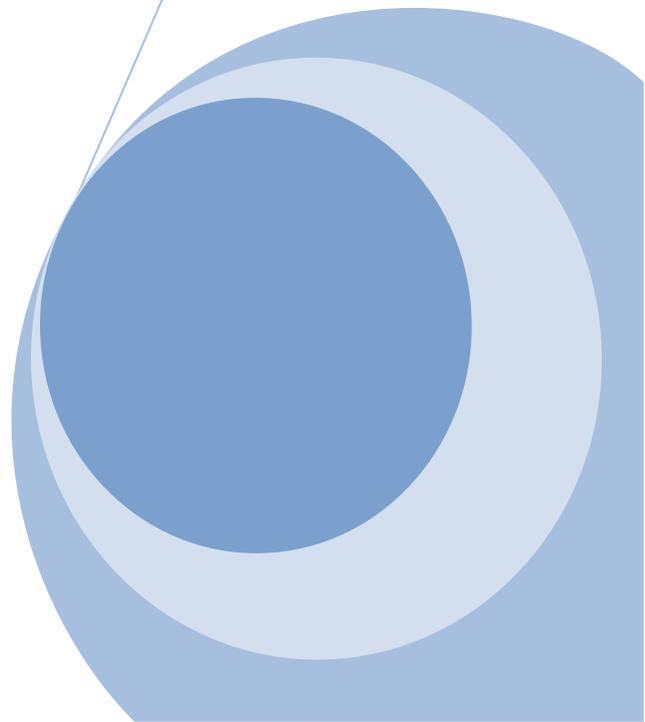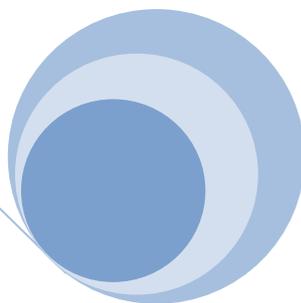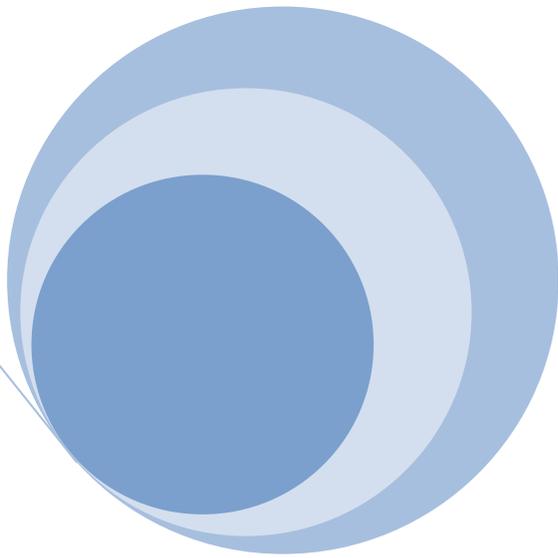
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Introduction

No two children are alike. Based on this principle differentiated teaching and learning is key to ensuring that children have multiple options for taking in information and making sense of concepts. To differentiate effectively and support individual and diverse students in the classroom, the teacher is required to be flexible in their approach in order to adjust:

- *what* the children will learn (content),
- *how* the children will learn (process) and,
- *how* they will *demonstrate* their learning (product).

The resource aims to contextualise differentiation and to suggest a number of strategies to support differentiated teaching and learning in the classroom.

Contextualising differentiation

So what exactly is differentiation? Heacox (2002) defines differentiation as '*changing the pace, level, or kind of instruction you provide in response to individual learners' needs, styles or interests*' while Willis, S. & Mann, L., (2000) states that '*differentiation is a teaching philosophy based on the premise that teachers should adapt instruction to student differences'.*

In discussing differentiation some educationalists argue that differentiation should be about matching the level of the curriculum content to the differing capabilities of the children. Others argue that it is less about changing the level or type of work set by teachers but more about providing alternative paths to enable all children to reach their potential.

Reducing the complexity and demands of the curriculum and setting easier objectives may sound like very good advice but watering down the curriculum in this way can have a long-term effect of increasing the achievement gap between children with learning difficulties and others. Similarly if advanced learners are merely assigned additional tasks to 'keep them busy' they will continue to simply relearn the known.

Remember! It is not the *quantity* but the *quality* of the task that should serve to extend children's learning.

Your role as teacher in differentiating teaching and learning

An obvious feature of the differentiated classroom is that it is '*child centered'.* Shifting the emphasis from the 'teacher and instruction' focus to the 'child and learning' focus means redefining your role as teacher.

"As a teacher who differentiates instruction, you become both a facilitator and a collaborator" (Heacox, 2002).

Your role as teacher in the differentiated classroom is multi-faceted. As a facilitator, you provide a range of differentiated learning experiences for the children, you organise the children for learning and use time flexibly to suit children's needs. As a collaborator, you forge professional relationships with your colleagues and the children's families sharing insights, resources and ideas.

To enhance differentiation in your classroom it is important that you:

1. **know your students** – their interests, preferred learning styles, current level of knowledge and skills

2. **organise your classroom** – physical environment, flexible grouping, agreed procedures/systems to facilitate independent learning

To ensure that your role as teacher does not become too over-whelming some teachers find it useful to choose from a menu of ideas such as those described in the subsequent pages of this document. Trial this selected idea, integrating your chosen strategy into your classroom in some way and sharing it with fellow teachers.

1. Knowing your students

"The biggest mistake in teaching is to treat all children as if there were variants of the same individual and thus to feel justified in teaching them all the same subjects in the same way."
(H. Gardner)

The first step in knowing the children in your class is to understand who they are, what they already know and understand. The following suggestions may be useful to support you in eliciting children's current understandings, knowledge, skills and interests:

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- Teacher observation
- Focused talk and discussion
- Questioning
- Teacher designed tasks and tests
- KWL grids – *reference appendix A* Brainstorming
- Standardised tests
- Diagnostic tests
- Concept mapping

- Profiles and inventories
- Questionnaires and surveys
- Self assessment and reflection
- Conferencing with parents and children
- Feedback from previous/other teachers
- Samples of children's work

Assessment in the Primary School Curriculum; Guidelines for Teachers (NCCA, 2007) contains very useful information in relation to many of the suggestions above.

Spending time getting to know your students is time well-spent as it informs your planning when deciding:

- Whose needs are not being met with this learning experience?
- Is this learning experience necessary for all the children in my classroom?
- How am I meeting the needs of children who already understand this material or who learn quickly?

2. Organising your classroom

Carefully planned organisation of your classroom is key to complementing differentiated teaching and learning and providing children with choices in terms of their learning. Such organisation will facilitate the use of flexible grouping (the practice of using several kinds of grouping formats at different times) and the early introduction of systems and procedures to support this is crucial.

According to Fountas and Pinnell (1996), "in short, an organised and well-designed classroom enables the teacher to observe, support, and meet the learning needs of each child."

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The following points may support you in organising your differentiated classroom:

- **Establish systems and procedures early in the year** - teach children how to arrange the furniture according to two/three floor plans to facilitate groupwork
- **Teach group work skills** such as listening, turn-taking, welcoming all contributions, etc. explicitly
- **Define areas of the classroom** for independent and group work. If space allows, each child should have a "home base" desk that they return to for whole-class teaching.
- **Establish flexible groups** – this is addressed in subsequent pages
- **Teach children how to access resources and tidy** them after use
- **Ensure open shelving is accessible** and within easy reach of the children

- **Establish a rota** for class jobs, access to library, maths, writing areas
- **Colour-code** activities and books
- **Vary classroom instruction approaches** to include whole-class, small-group and individual activities
- Ensure **a whiteboard and blackboard** is available for whole-class/small-group teaching
- Create a *Things to Do* **chart** for early finishers (self-correcting activities, webquests, varied journal prompts)
- Consider introducing **team-teaching** in your classroom
- Ensure **computer/laptop is accessible** to children
- **Involve children** in maintaining and updating their own portfolios

Please refer to the document entitled "*Promoting group work, collaborative and co-operative learning in the primary school - tip sheet for teachers*" for more information on group work and strategies to teach children group work skills. This is available on www.ppds.ie under the cross-curricular section.

What might a differentiated classroom look like?

You might like to consider modifying a floor plan such as the example below when organising your classroom for differentiation.
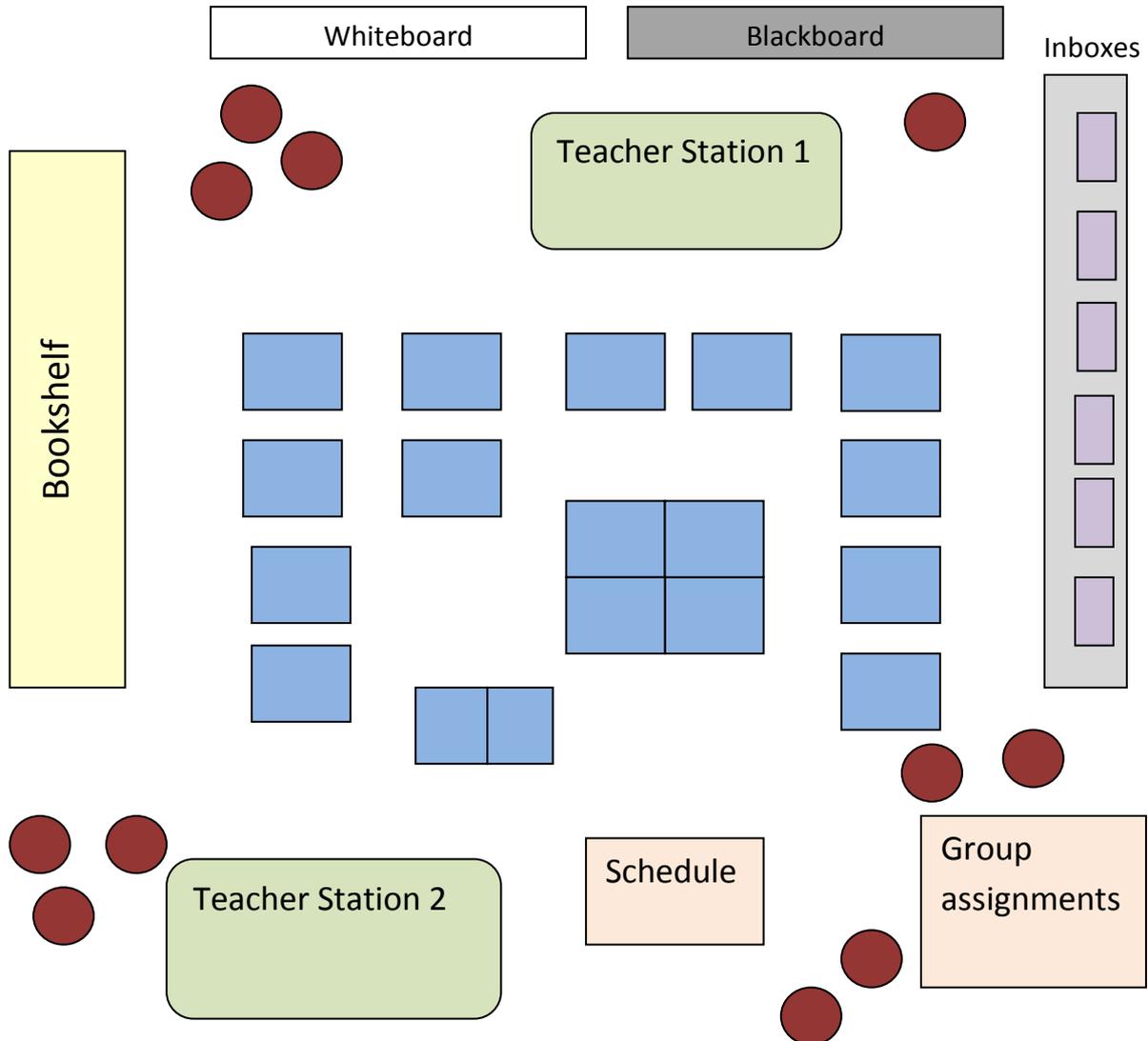
The teacher stations are useful when working with small groups and can also be used during team-teaching. Alternatively they can be used as learning centres. Aim to position low-level open shelving near such spaces so that needed materials are easily accessible and endeavour to organise the furniture so that desks can be manipulated thus allowing children to work independently, in small groups, or in pairs.

The inboxes can be used to store materials or as places where children hand in work. Consider labeling or color coding the inboxes to help children find things quickly without the help of the teacher. Always keep a schedule and group assignments posted.

The red circles represent pillows/mats so children can work on the floor if it meets their learning profile. Create structure around this (for example, they pick one place and stay there for a defined period of time).

Differentiation strategies in action!

Differentiation requires the teacher to vary their approaches in order to accommodate various learning styles, ability levels and interests. The Curriculum advocates the use of a broad range of active learning methodologies such as use of the environment, talk and discussion, collaborative work and use of ICT. Click here to see an overview of the various methodologies that can be employed across the curriculum as well as those that pertain to certain subjects. Remember, the greater the variety in the methodologies adopted by the teacher, the more pathways and entry points into learning s/he provides for the children.

There are a number of strategies which can be employed to support differentiated teaching and learning. The various tools outlined below contribute in different ways to effective differentiation. We recommend that you begin by trying one of these rather than attempting to implement them all at once. You may find that some are more useful to you than others depending on your needs as a teacher and the profile of your class.

1. KUDo'S

What are they?

KUDo'S are a useful way of breaking down learning objectives into what it is the teacher wants the children to **know, understand** and **do** by the end of a unit of work.

How do they enhance the differentiation process?

Curriculum objectives can sometimes be very broad and open to interpretation. By considering them in terms of the three outcomes above, an objective can be simplified and made more explicit. This makes it easier to plan and decide on differentiated activities and also facilitates the assessment process.

What do the elements of *Know, Understand* and *Do* mean in relation to KUDoS

a) **Know** relates to facts, definitions, dates, and other key information to be memorised by the students.

b) **Understand** relates to the concepts, principles or general "big ideas" learned by the students.

c) **Do** encompasses skills and processes and how children independently apply their knowledge and understanding (a and b above) in follow up activities or in other contexts outside the lesson. These are often written as verbs.

Example of KUDoS based on the content objective:

o **experiment with a variety of colour drawing instruments and media to develop colour awareness.** (Visual Arts: Infants)

Know	• Name and identify the three primary colours.
	• Name and recognise the drawing instruments used.
	• Use appropriate vocabulary to describe the various surfaces used in their work (cardboard, fabric, wood)
Understand	• That colours blend to make new colours
	• How to use instruments (paintbrush, pastels) in various ways to achieve different effects
Do	• Create new colours independently
	• Experiment independently with different instruments and media.

Example of KUDoS based on the content objective:

o **draw the nets of simple 3-D shapes and construct the shapes** (Mathematics: Fifth and sixth class)

| Know | • Name and identify the 2-D shapes which comprise the nets of 3-D shapes. |
	• Name and identify the 2-D shapes which comprise the nets of 3-D shapes.
Understand	• That 3-D shapes are made up of combinations of 2-D shapes
	• How the properties of 3-D shapes are related to the 2-D shapes of which they are made.
Do	• Construct 3-D shapes from readymade nets.
	• Design and draw nets for 3-D shapes using the appropriate 2-D shapes

Remember! When writing "Do's" be careful to write them as goals not tasks; in other words describe what will the children be able to DO at the end of the activity rather than the actual activity!

2. Bloom's taxonomy

- **What is it?**

Bloom's taxonomy is a useful and time tested model for examining and differentiating the challenge levels of learning tasks and discussion questions in all subjects. It enables the teacher to look at instruction through the lens of challenge. It includes six levels:

- Knowledge
- Comprehension
- Application
- Analysis
- Evaluation
- Synthesis

Lower-order

Higher-order
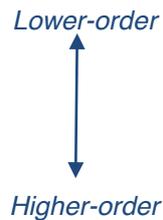
Note: There are various schools of thought regarding whether synthesis rather than evaluation should be presented as the highest most challenging kind of thinking as many educationalists believe that it is more challenging to come up with something new (synthesis) than it is to evaluate what already exists (evaluation). However the order of the levels aligns to the taxonomy presented in *Assessment in the Primary School Curriculum; Guidelines for Teachers* (NCCA, 2007).

Knowledge *Know it*	Comprehension *Understand it*	Application *Use it*	Analysis *Examine it*	Synthesis *Create it*	Evaluation *Judge it*
Recall for information	*Show your understanding*	*Use what you've learned*	*Examine critically*	*Put together in a new and different way*	*Determine worth or value based on criteria*
List, define, name, when, where, state, identify	*Retell, summarise, describe, explain, predict, restate, estimate*	*Solve, use, construct, classify, examine, illustrate, modify*	*Analyse, compare, distinguish, order, infer, categorise, investigate*	*Create, design, formulate, invent, imagine, devise, combine*	*Check, choose, prioritise, critique, hypothesise, judge, debate*

Appendix 2 contains a table that includes examples of questions that pertain to each stage of Bloom's taxonomy. Some teachers have found it helpful to have a chart at the back of the

room displaying the taxonomy with some sample questions to remind them to vary their questioning, and also as a model for children to use when they are composing questions.

- **How does it support differentiation?**

Bloom's taxonomy enables the teacher to categorise activities and questions by level of complexity, thereby ensuring that a wider range of higher-order thinking challenges are provided to children. In addition to this, Bloom's taxonomy higher levels of thinking reinforce basic content thus ensuring children that need more time than others to develop their content knowledge are provided such time. For example, asking children to identify a problem in a story and come up with an alternative solution (analysis and evaluation) requires them to revisit the story and recall the original solution (knowledge and comprehension). Offering more time to children who need it, while providing sufficient challenge for all, is key to differentiated instruction.

- **Example of learning tasks categorised according to Bloom's taxonomy based on the content objectives:**
  - **write in a variety of genres** (English: First and second class)
    stories, diaries, poetry, charts, lists, captions, cards, invitations, simple letters

Knowledge *(recall)*	**Questions:** *What is a recount? When? Who? Where? What? Why?* **Tasks:** *Read a recount, discover the framework, tell a recount using Charlie the Clown*
Comprehension *(understanding)*	**Questions:** *When? Who? Where? What? Why might?* **Tasks:** *Reconstruct a recount*
Application *(solving)*	**Questions:** *What comes first? What happened after that?* **Tasks:** *Organise recount text using the framework*
Analysis *(reasoning)*	**Questions:** *What kind of language can you see/would you use?* **Tasks:** *Analyse the framework*
Synthesis *(creating)*	**Questions:** *Can you write your own recount?* **Tasks:** *Compose a recount with/without a framework*
Evaluation *(judging)*	**Questions:** *Which of these three recounts is the best? Why?* **Tasks:** *Rank in events in order*

o **listen to, discuss and retell and record a range of myths and legends from various cultural, ethnic and religious backgrounds in Ireland and other countries** (History: Third and fourth class)

Note: It is assumed that before embarking on these tasks, that the children will have explored this particular genre of reading and will have exposed to many texts including myths, legends and fairytales.

Knowledge *(recall)*	Make a list of the villains and heroes that appear in each of the fairytales and legends that the class has explored. Make a chart displaying these characters and include captions of what each character would typically say!
Comprehension *(understanding)*	Make a list of the villains and heroes that appear in each of the fairytales and legends that the class has explored. Make a booklet of these characters and give the reason why each is a hero or a villain.
Application *(solving)*	Choose one of the stories and create a timeline with pictures and words showing the five main events in the story.
Analysis *(reasoning)*	Compare two villains or two heroes from two different stories? Use a chart or a Venn diagram to show how they are the same and how they are different
Synthesis *(creating)*	Choose a villain from one of the folktales and tell their story from their point of view. Share your story by creating a comic strip
Evaluation *(judging)*	Choose one of the magic powers of the various villains and heroes you have read about. Write a diary with pictures about how you used this power if you had it for a whole week.

You will note in the examples above that care is taken to ensure that all the activities are active. Children may be unhappy or become disengaged if some activities are visual and exciting and others are paper and pen driven. A combination of both at the appropriate ability level of each child is what is required.

Remember! Ensure that the more advanced tasks you provide for some children are genuinely more challenging and not simply more of the same work.

3. Tiered assignments

What are they?

Tiered activities are a series of related tasks of varying complexity. The activities all pertain to essential skills and concepts that all children are required to learn. The teacher assigns the activities as alternative ways for children to access the learning according to their individual needs. Tiered assignments involve all children being focussed on the same content or curriculum objective but the process and/or product will vary according to the child's readiness or ability.

When is best to use them?

At some point, *all* students will need differentiated instruction based on their particular learning needs. Tiered assignments are not typically a daily activity and are best used as necessary and appropriate. For instance there are days when everyone in the class will need the same introduction to or explicit teaching of a concept because it is new to all. It is when the children are asked to practice and complete follow up tasks that the activities may have to be tailored in a tiered fashion.

Use a tiered assignment when:

- students show different stages of understanding after a core concept is taught
- students indicate differing stages of readiness to tackle an activity
- students' learning preferences are varied
- some students need more support or scaffolding than others
- some students need more time to complete a task and others need an additional challenge
- students need to use different resources related to their learning needs.

A good way to visualise a tiered activity is the image of a ladder, where a **core task** appears on the middle rung, the **advanced** version of the core task on the top rung and the **modified** version of the core task on the bottom rung.

The **core task** applies to most of the students and will generally be the yardstick used to design the advanced and modified tasks. The **extension task** is pitched at those pupils who need a greater challenge than afforded to them in the core task, i.e. early finishers. The **modified task** is designed for those who need extra support or guidance with the core activity. It may not be necessary to change the core activity for these children at all. They may simply require additional resources, scaffolding or one-to-one assistance. The example overleaf illustrates how the tiered approach may be applied to a **shape and space** activity for third and fourth classes.

o **Content objective**: Solve and complete practical tasks and problems involving 2-D shapes (Mathematics: Third and fourth class)

Extended task: Fill the area of non-outlined designs on the workcards using all 7 tangrams. Devise a similar puzzle for somebody else to complete using the tangrams.

Core task: Can you make new shapes by combining one or more tangrams? (2 triangles make a square). Complete the outlined designs on the workcard using the correct tangrams.

Modified task: Match each shape to their outline on the workcard. In pairs complete the outlined designs on the workcards using the tangrams.

Here is an example from the Geography Curriculum for fifth and sixth classes.

o **Content objective:** Explore and investigate important economic activities of people in the locality or in a contrasting part of Ireland (Geography: Fifth and sixth class)

Extended task: Design a brochure to attract tourists to your town using photos and persuasive writing accounts of the main places to visit. Include a map of the town with suitable symbols and a legend.

Core task: Design a brochure for your town using photos and drawings. Write short paragraphs under each picture. Include a map of the town showing 5 main places to visit.

Modified task: Design a brochure for your town using photos and drawings. Include one sentence for each photo/picture. Include a map of the town.

Tiered assignments can also be presented in simple diagrammatic form.

This example focuses on a maths activity for third to sixth classes

Content objective: Estimate, compare, measure and record the length of a variety of objects using appropriate metric units (Mathematics: Third-sixth class)

Modified task

Select 5 items in your classroom which are of similar length. Measure these and record your results pictorially starting with the shortest.
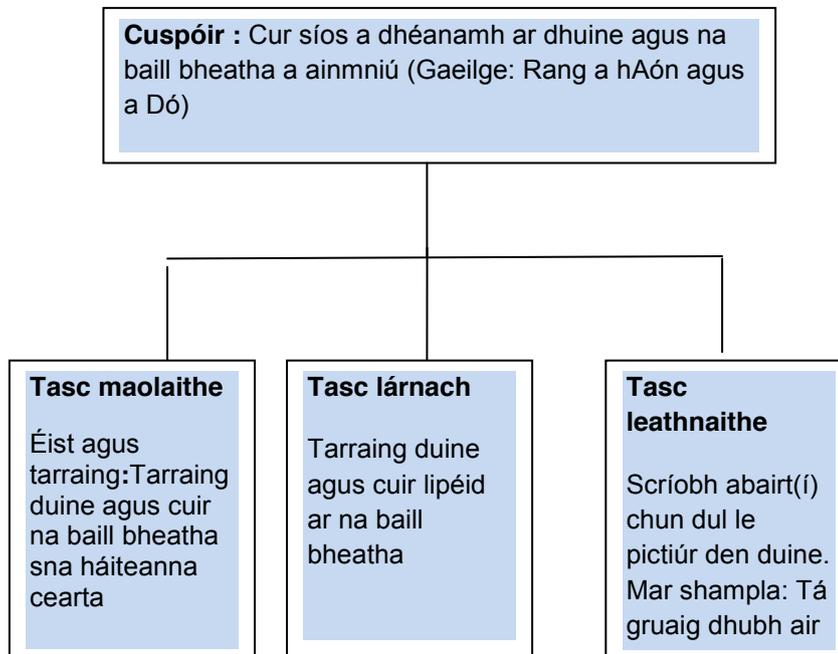
Core task

Select 5 items in your classroom which are of similar length. Measure these and record your results on a bar chart.

Extended task

Select 5 items in your classroom which are of similar length. Measure these and record your results in at least 2 creative ways.

Baineann an sampla thíos le cuspóir foghlama don Ghaeilge *(Scríbhneoireacht, Rang1 agus 2)*

Cuspóir : Cur síos a dhéanamh ar dhuine agus na baill bheatha a ainmniú (Gaeilge: Rang a hAón agus a Dó)

Tasc maolaithe

Éist agus tarraing:Tarraing duine agus cuir na baill bheatha sna háiteanna cearta

Tasc lárnach

Tarraing duine agus cuir lipéid ar na baill bheatha

Tasc leathnaithe

Scríobh abairt(í) chun dul le pictiúr den duine. Mar shampla: Tá gruaig dhubh air

When designing tiered assignments it is important to bear in mind the needs of all the children; those at the introductory level of learning, those at the standard level, and those who are capable of more in-depth, higher-order tasks. The total learning experience for all

students comes from bringing the tiers together as students need to see the results of all the tiered activities. In this way learning experiences are shared and everybody's work is celebrated.

What makes an effective tiered task?

- Tasks are focussed on learning objectives and essential concepts.
- Tasks respond to the specific learning needs of different groups according to ability, readiness, degree of support required and learning preferences.
- All tasks are equally engaging, active and interesting
- Success criteria are outlined clearly
- Extended tasks are not merely "more work" and modified tasks are not "dumbed down" versions of the core task.

4. Flexible grouping

What is it?

Flexible groups are the type of groups used to manage tiered assignments (above).Students are assigned to groups based on commonalities with regard to interest, learning style, readiness or ability level. Group membership is fluid. Students are grouped and regrouped as appropriate for particular activities

What are the benefits?

The benefits of group work for enhanced teaching and learning are outlined in our tip sheet on collaborative and cooperative learning which can be found in the Active Learning section of our website. Click here to read more about collaborative and co-operative learning in general. It is also important that the ways in which children are grouped changes from time to time and children are permitted to move between groups as their needs change. Flexible grouping allows children to be appropriately challenged and avoids labelling a child's ability level as static. Children will display different interests and abilities in different subjects and adaptations in group work need to be made accordingly. Some children learn best while working alone, others work better in group settings depending on the subject or task.

Tips for managing flexible groups

- Smaller groups are generally easier to manage and more effective for learning. Regardless of the group type a maximum of five in each is best.

- Save time by creating a system where students can check for themselves which group they are in without always needing directions. One idea is to write each student's name on a lollipop stick and glue some magnetic tape on the back of each stick. Draw circles on the white board to represent the location of each group in the class. Move the lollipop sticks around the whiteboard to create instant groups.
- It is best if the tasks allocated can be managed by children themselves after the teachers has provided directions. A checklist or step by step instructions may come in useful here.
- Allow more time to work closely with certain groups by planning supplementary activities for other groups who need minimal direction.
- Establish ground rules regarding noise levels, expected behaviour, movement around the room and appropriate use of materials.

Remember! Ensure that children are already familiar with the rules of effective group work and that have had plenty of experience of working collaboratively before establishing flexible group structures.

Peer tutoring groups

When children assist each other in their learning, it gives them responsibility for understanding what they know and how they can use the information. When a child teaches something to another child it reinforces their own learning and leads to mastery of a concept. Children can become "resident experts" for particular concepts or skills and get valuable practice in re-teaching the concept to peers. The learner also benefits as they are getting individualised instruction that is tailored to their needs. Common examples of peer tutoring are paired reading and study buddies.

Interest groups

All learners are highly motivated by a specific interest in a topic or subject. In planning for interest groups teachers are seeking ways to bring children into the learning experience via their interests. Teachers can glean children's interests using informal discussion, brainstorming, or by conducting simple surveys. If the class is conducting a study of mini-beasts in the school grounds, children with a shared interest in spiders for example could form a particular interest group*.*

5. Tic-tac-toe boards

- **What is a tic-tac-toe board?**

A tic-tac-toe board, or *think-tac-toe board*, is a form of a choice board and offers a menu of activities from which children can choose to demonstrate their understanding. It is presented in the form of a 3 x 3 grid thus providing children with nine choices of:

- o activities
- o assignments
- o projects
- o questions

These choices are of varying complexity and challenge and children are required to choose "three-in-a-row" in order to complete the board. Choices included in a tic-tac-toe board can be generic (*for example, identify four ways the concepts in this unit are used in the real world*) or more specific (*for example, compare yourself to the character Stanley Yelnats in the novel 'Holes' by Louis Sachar using a Venn diagram*).

- **How do tic-tac-toe boards enhance learning?**

Tic-tac-toe boards complement a child-centred approach to learning, in that the student is motivated through the power of choice. Tic-tac-toe boards encourage independent learning using a structured approach and enable the teacher to provide controlled choices to the children in his/her class. The nine choices should focus on student learning goals and cater for carrying abilities and learning styles through subtle differentiation.

- **Identify key considerations when designing a tic-tac-toe board**

In designing a tic-tac-toe board, a teacher should avoid offering a task as a choice if the children have not worked with the process/product previously or if the associated skills/understandings have not been pre-taught. Teachers should ensure that the tasks focus on learning goals and represent varying levels of complexity to challenge all children. Some teachers have found it useful to provide rubrics/criterion checklists for each task to encourage self-assessment.

- **Example of tic-tac-toe board based on the content objective:**
  - **talk about pieces of music, giving preferences, and illustrate responses in a variety of ways** *(Music: First and Second classes)*

    this music is exciting, sad, lively

    it makes me feel happy, frightened, giddy

    it reminds me of the circus, a storm, big crowds

    writing, drawing, painting, humming

Piece: Flight of the Bumble Bee

| Physically move to the music	Describe the mood of the music (in a written piece of text)	Identify three instruments in the piece
Write a paragraph on what the music reminds you of	Orally respond to the music and present your response to your class	Choose instruments to "join in" with the orchestra
Draw a picture of what images you are reminded of in the music	Devise a creative dance in response to the piece	Write a poem based on the piece

6. Use of ICT

ICT in and of itself is not a differentiation strategy. It is however a flexible tool that can facilitate the teacher to design a differentiated learning environment. Differentiating using technology requires that teachers think about hardware, software and web resources that support the teaching and learning while meeting the learning needs and styles of individual students. Moreover teachers need to consider how best to use the various applications towards tailoring the learning experiences for students.

ICT as a methodology has inherent characteristics that make it suitable for differentiation. It facilitates self-paced learning and choice for the learner. Through ICT students can explore, investigate and present their work with support when needed at their own pace and avail of multisensory methods when learning. Students can proceed as quickly or as slowly as he or she wishes. The computer will 'wait' for the student to respond without prompting them before they have had time to fully process the information and construct their response. Many programmes offer a menu of tasks which increase in complexity allowing the student to independently control the rate at which they move their learning forward. ICT presents information in many ways; visually, aurally, diagrammatically,

text style and so on. This means that there are multiple ways for students to acquire content, process ideas and develop products.

This diagram shows the use of ICT in the context of Bloom's Taxonomy. Various applications and programmes appear at different levels. However it is also important to note that any ICT tool can span all levels according to the level of sophistication with which it is employed. For instance, a student with the basic word processing skills of typing and formatting font will operate at a lower level of the hierarchy compared to one who has the ability to present texts with appropriate spacing, bullets and tables.

M.Fisher 2009 digigogy.blogspot.com
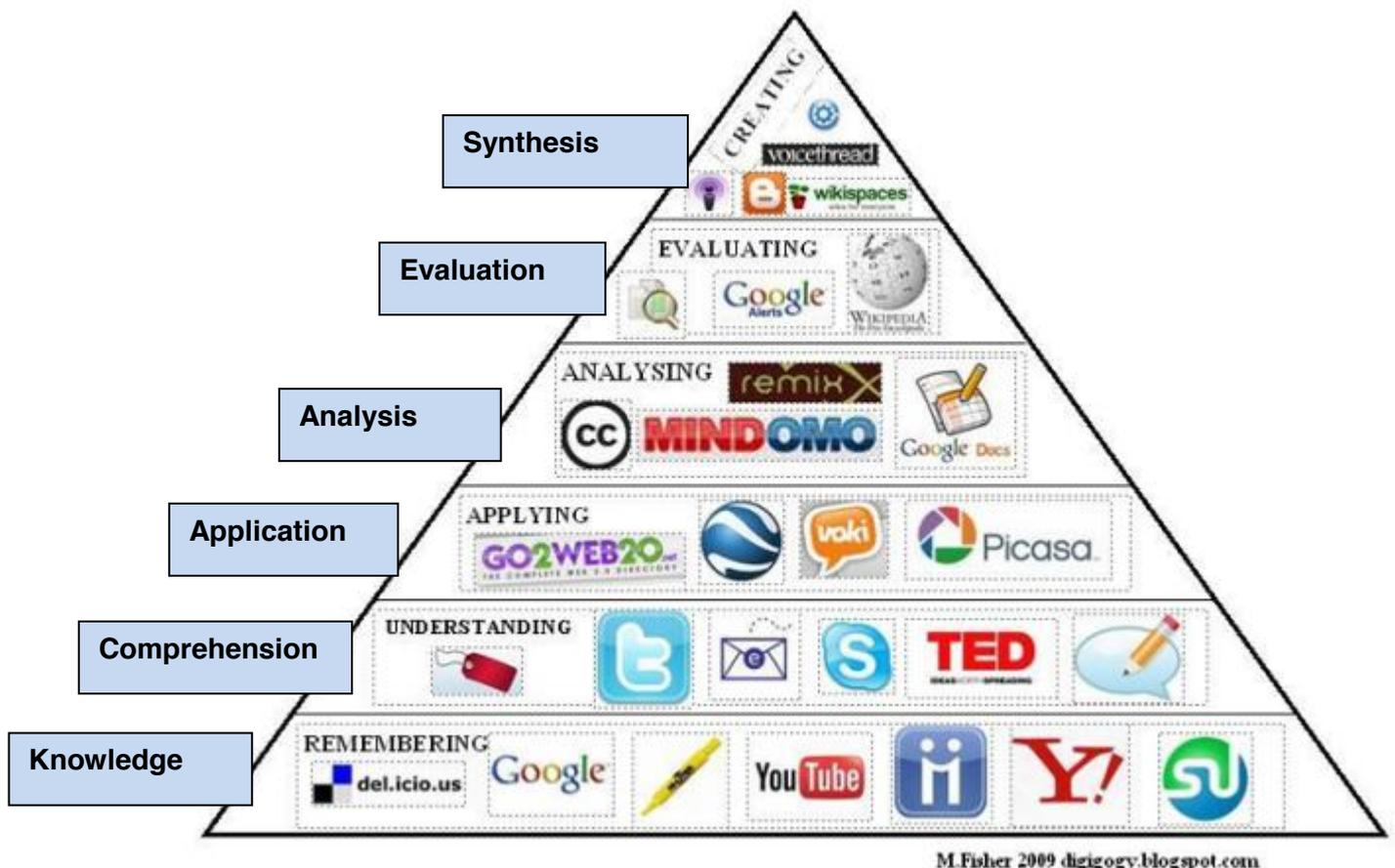
7. Varied questioning

All teachers make regular use of questioning on a daily basis to elicit children's knowledge, assess their understanding and review concepts. It is very important however to adjust the types of questions according to the children's readiness and levels of comprehension. In general, teachers should use a combination of closed **questions** which demand simple one word answers and **open questions** which promote higher order thinking and which invite more elaborate responses. As teachers come to know the children and recognise their abilities, questions can be differentiated by levels of complexity and abstractness. These

questions should challenge children at or just beyond their levels of comprehension or experience. The use of multiple question levels ensures that children of differing abilities can be challenged at a level that is appropriate to their development. It also ensures that students learning will be enriched due to the wide range of questions and responses.

Remember to allow children "*Time to think*"!

Teachers should always allow for adequate *wait time* after asking a question in order for the child to access information and formulate an answer. Open questions demand more think time as they require children to tap into their evaluative or critical selves. Generally the longer the think time, the better quality the answer, regardless of the question type.
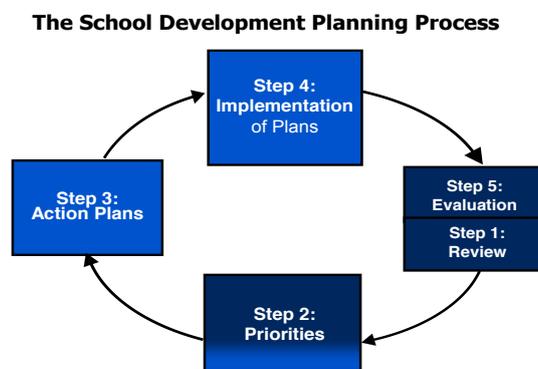
Wait time can be facilitated effectively by using the **Think, pair, share** technique. This requires the children to think firstly for themselves, pair with another child and share their ideas. This gives children time to really think about and attend to the question being asked and paves the way for a well thought out answer. Appendix 2 demonstrates how Bloom's Taxonomy can be used as a framework for generating differentiated questions.

Towards a whole-school approach to differentiation

Schools have found the stages in the School Development Planning Process very useful in enabling a school community to identify its particular strengths and challenges in terms of differentiation and to inform future priorities thus ensuring a whole-school approach to differentiation.

The School Development Planning Process

Step 4: Implementation of Plans

Step 5: Evaluation

Step 1: Review

Step 2: Priorities

Step 3: Action Plans

These stages above support schools and teachers to:

- assess its current strengths and weaknesses;
- set effective and realistic objectives for building on its strengths and addressing its weaknesses;
- monitor and review its objectives on an ongoing basis; and
- at the end of the period of its plan, evaluate the extent to which it has achieved its objectives.

A bibliography has been provided in Appendix 3 of this resource for your reference. You may wish to review some of these titles/encourage your colleagues to do so. Please refer to the review instrument entitled "*Whole-school review: Differentiation*" to support your school in auditing your current practice in relation to differentiation. This audit may be useful to inform your agreed priorities and action plan. This is available on www.ppds.ie under the cross-curricular section.

Appendix 1: KWL Chart

Name:　　　　＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿

Date:　　　　＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿

Subject:　　＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿＿

K (What I know already)	**W** (What I want to know)	**L** (What I have learned)

Complete at the start of the lesson　　　　Complete at the end of the lesson

Teacher's Notes

Appendix 2: Bloom's taxonomy – a framework for generating questions

Knowledge *(recall)*
Tell, list, define, name, when, where, state, identify …

- What happened after...?
- How many...?
- Which is true or false...?
- What is the name of...?

- Who is the...?
- List the colours of the rainbow
- Recall the facts
- When did...?

Comprehension *(understanding)*
Retell, summarise, describe, explain, predict, restate, estimate ...

- What is meant by?
- Can you describe?
- How are these the same/different?
- Can you tell me in your own words

- What do you think will happen next?
- What is the main idea?
- Tell me about the _____'s size and shape.
- Can you give an example of …?

Application *(solving)*
Solve, use, construct, classify, examine, illustrate, modify …

- What would happen if...?
- How might you use this?
- What information would you need to ….?
- In what other way can you...?

- What would you do next time?
- Why is …. important?
- Show how to...
- Where have you seen something like this before?

Analysis *(reasoning)*
Analyse, compare, distinguish, examine, order, categorise, infer, investigate....

- Which were facts and which were opinions?
- What is the connection between...?
- What are the parts of...?
- What might have happened if …?

- What were the causes of...?
- What were the effects of...?
- What is the difference between …?
- What do you see as other possible outcomes?

Synthesis *(creating)*
Create, design, formulate, invent, imagine, devise, combine ...

- What is your final conclusion?
- Can you design a … to …?
- Can you see a possible solution?
- What other ideas do you have for …?
- Can you think of a new and unusual way to...?

- How could this be rearranged?
- What is your plan for accomplishing this task?
- How can you use what you learned to...?

Evaluation *(judging)*
Check, choose, prioritise, critique, hypothesise, judge, debate ...

- How could this be improved?
- How would you rank these in order?
- What is the most important?
- In your opinion …/

- Which is a better bargain? Why?
- What is your top priority?
- What criteria did you use?
- How did you make your decision…?

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