Handbook for the Teaching of Art and Design
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Acknowledgements

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Cover Design: Edward Gilson

Directorate for Quality and Standards in Education – Curriculum Management and eLearning Department
Foreword

In view of the current reform, teaching, learning and assessment need to reflect the evolving needs of a differentiated classroom environment within a lifelong learning framework. This is in line with the philosophy underlying the National Curriculum Framework (NCF) consultation documents that have been launched in May 2011.

The Form 1 and Form 2 curriculum promote ways that support the development of lifelong learning within a framework which is built on the principle of a continuum of learning. The documents serve as a pedagogical tool intended to help teachers meet the different needs of the learners. Apart from this handbook there are two documents for each subject for each form. The first lists the teaching objectives and learning outcomes that need to be covered in a year. A second document which includes teaching and learning examples is intended as additional means of support for teachers as they work with the range of learners in class. The Form 1 and 2 curriculum offer greater autonomy and flexibility to teachers. The learning and teaching process is envisaged to be active, engaging, meaningful and purposeful. Within this process, valuable information will inform further planning and guide the process that will lead to further improvement of learners.

The learning outcomes will now guide the learning and teaching process. This is an output model directly linked to the direction that is being promoted by the national qualifications framework which is directly referenced to the European qualifications framework. All outcomes are directly tied to the revised attainment level descriptors which describe in detail the learning achieved by the individual learner. The attainment level descriptors illustrate the evidence the teacher needs to elicit from a range of activities during the learning process through well thought-out tasks that demonstrate learners’ understanding, progress and achievement.

This learner-centred curriculum respects the diversity of learners that we meet in our daily lives as educators and the ways in which they learn. It is built on the belief that all learners can learn. It is our responsibility as educators to provide the contexts and the pedagogical tools to make learning a meaningful process for all learners, to provide learners with experiences that lead them to experience success in their educational journey, supported by the necessary scaffolding and then to challenge them to the next steps and then to the next steps after that as learners grow into self-directed learners within a lifelong learning context.

Professor Grace Grima
Director General
Directorate for Quality and Standards in Education
Preface

The Secondary Curriculum for Form 1 and 2 reflects the aims and philosophy of the recently published draft National Curriculum Framework (2011) which aims at developing learners who are capable of successfully developing their full potential as lifelong learners. The achievement of these aims depends on the following cross-curricular themes for their success: eLearning; Education for Sustainable Development; Intercultural Education; Education for Entrepreneurship and Creativity and Innovation.

This Form 1 and 2 curriculum document reflects the principle of diversity of student learning needs. It recognizes the reality present in society where students have various differences in backgrounds, aptitudes, interests, intellectual abilities, needs, language competence and learning styles. The Form 1 and 2 curriculum document provides scaffolding to ensure that learners are supported through appropriate teaching and learning approaches whatever their level.

The National Curriculum Framework clearly states that current theories of learning are based on the social constructivist approach where individual learners construct their own meaning and where one needs to move away from teacher centered to learner centered learning. This should lead to students becoming more active learners responsible for their own learning and where the teacher moves away from having a central role to a situation where the learners acquire more responsibility for the learning that takes place.

This new documentation has been written in a style to assist teachers to develop their teaching practices. Successful education relies upon enthusiastic and committed teachers who are willing to contribute to the evolution of increasingly effective schooling processes. I look forward to seeing the quality of education continuing to evolve and that the intentions of the New Curriculum Reforms will become a reality for all our students.

Raymond J. Camilleri
Director
Curriculum Management and eLearning
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1. Introduction

The purpose of the new curriculum has the overall aim to help schools and their teachers to improve the quality of their teaching and to enable students to raise their level of educational attainment. This is a common concern for many countries within the EU and the wider world.

It is being proposed that the traditional concept of having a syllabus that is time tabled is being replaced by the concept of a curriculum that is managed. This requires teachers to be given a unitised syllabus which covers all of the content that can be realistically and effectively taught within each year of schooling. This has led to the writing of a Teaching Objectives Framework.

Each unit to be taught contains much more than syllabus content, it contains pedagogical suggestions for good practice. The unit is not a strait jacket; it is given as an inspiration and catalyst for teachers to develop their own ideas according to their professional understanding and the abilities of the students in their classrooms.

It is presumed that curriculum content is constantly evolving as our society rapidly changes. The new document should be seen as a flexible evolving tool to support the overall aims of education.

There are a number of paradigms that underpin this approach to curriculum.

These are namely:

- That every student is entitled to a quality curriculum that enables him/her to reach the highest level of attainment that they are able to achieve;
- That in order to do this, student centred learning is an important approach to teaching and learning;
- That all students are on a continuum of ability (not failure) and that such a continuum needs to be identified within strands of learning for each subject. For each strand of learning there are ten levels;
- That the concept of diversity means all students (be they ‘the gifted’ or ‘the least able’) should be encouraged to work at their optimum level. In this context the term special educational needs is no longer required;
- That the curriculum management paradigm provides an important professional tool which can be practiced at all levels of the schooling process.

Each subject has the following

1. A Teaching Objectives and Learning Outcomes document
2. The aims for each subject.
3. Strand definitions to indicate the focus of teaching throughout a student’s school career.
4. Attainment level descriptors that indicate the learning outcomes of student learning at all levels of schooling.
5. A Teaching Objectives Framework that indicates the syllabus to be taught and which accepts that at each level and in every class there will be a variety of student learning outcomes.
6. Approaches to teaching and learning that are specific and differ for each subject.
7. A number of units which have important sections that relate to the above paradigms
8. e learning perspectives

Each Unit has a number of features

• A front page which indicates
  o the code and title of the unit
  o the length of a lesson
  o the number of hours in which it may be taught
  o the key words to be addressed
  o the points to note especially about the subject approach to teaching and learning
  o a statement about resources including references to e learning

• A subsequent set of five pages which indicates;
  o the teaching objectives
  o examples of teaching activities and experiences that a teacher may wish to use or develop.
  o a column which indicates the range of learning outcomes that can be expected as a student response to each teaching objective. These relate to students attaining across the attainment levels five to ten. Subjects which are not taught at Primary School target different levels

• A set of three pages indicate
  o examples of work within the same teaching objectives for students who are working within attainment levels one to four.

• In some units, a final page that
  o indicates aspects of e Learning that is relevant to that unit

2 General Guidelines in using the curriculum documentation

2.1 Who is the curriculum documentation for?

Curriculum documentation is for teachers, heads of schools, education officers and education support staff and audit teams. The curriculum documentation provides information and suggestions for schools when planning a balanced school curriculum in every lesson for every student. The teacher may

• Make use of this handbook to strengthen the development of students with suitable learning experiences.
o Make and prepare relevant teaching materials according to the suggestion from the selected curriculum units and teaching activities in accordance to students’ learning needs.

o Adjust and revise curriculum units to support overall curriculum planning.

This curriculum has been written for ALL students.

2.2 The aims of the Art and Design curriculum

Art and Design has four perspectives, aesthetic, perceptual, technical, personal and social.

Through Art and Design students understand and use the language of aesthetics. This will enable them to comprehend the nature and function of art forms to better understand their work and that of others within a historical context and within the context of their own environment and culture.

This subject provides students with the perceptual skills needed to understand and respond to art and design forms and to the visual environment through visual, tactile and sensory experiences.

In Art and Design the students are also taught the technical skills involved in the use of tools and materials and the manipulation of the latter.

Through the personal and social perspective the quality of the students learning is improved since the subject challenges their abilities to create and imagine, think, perceive, make decisions, work through problems etc. It heightens and improves their perception of the world and their reactions and responses to it.

The aims of the curriculum are:

Art and Design should stimulate creativity and imagination and should provide all students with opportunities:

- To develop and translate an idea/ thought /concept into a tangible visible form or image.
- To enjoy and appreciate their own art and that of others.
- To become aware of the influence of place, time, culture, and material on the images and objects invented and created by artists, designers and craftspeople.
- To consider, select, and organize materials and media.
- To develop knowledge of techniques, processes and skills appropriate to the activity in hand and to the students’ stage of development, in an environment which stimulates awareness and imagination.
- To use feelings, imagination and memory to develop, express and communicate ideas and solutions.
- To become more aware of the visual environment and their relationship to it.
2.3 Approach to teaching and learning for Art and Design

Each subject has its own unique approach to teaching and learning. This approach happens no matter what subject of classroom management is implemented. An approach to teaching and the way the students are expected to learn will relate closely to the nature of the subject content. The following text is the approach for teaching and learning in Art and Design:

When children come to school they can already make interesting marks on paper in pencils and with paint. They have already learned by trying, doing and using their imagination or by watching and imitating. They have learnt because the process of learning was purposeful and enjoyable.

In Art and Design, a teacher should seek to further this curiosity and excitement in learning, to encourage this positive attitude to trying and the sheer enjoyment of doing, and to promote increasing confidence and competence in activities.

Pupils of all abilities should be catered for appropriately so that they develop at their own rate from their own starting point. It should be recognised that creativity is not a special gift which some students possess and others do not. All have creative potential which can be developed through sensitive teaching, active encouragement and engagement. Students should also be able to apply the knowledge and skills they acquire as part of the design process which is included in the higher order objective of Creating and Designing. This represents the opportunities pupils have to work towards the resolutions of problems and the fulfillment of set tasks. The teaching activities and experiences should maximize opportunities for all pupils to experience success and achievement in the process of design. Effective learning in Art and Design requires a variety of learning and teaching approaches and an ability to select the most appropriate for the student and the context. A range of approaches may include: Individual work, Small group work, Class work, Teacher directed activities, Supported self-study, Open learning situations, Special assignments or briefs, Fieldwork

Students should be encouraged to become independent learners, so the programme of activities should include time for work structured and taught by the teacher; time for students to initiate, plan, develop and present their own work; and time for collaborative work where students and teachers work in partnership.

Objectives may be attained by pupils in a unit of work, in a set of sequential lessons or through a thematic approach. Any one activity or series of activities will provide opportunities for students to demonstrate achievement in relation to a number of teaching objectives.

2.4 The Teaching Objectives Framework for Art and Design

For each subject there is reference to the Teaching Objectives Framework that is structured to provide a unitized curriculum. The Teaching Objectives Framework identifies the content to be taught in any one year of schooling and in doing so relates to an effective syllabus/course of study that can be taught within the time available. The time available has been worked to within the assumptions that there are
twenty seven weeks in a scholastic year and that a unit of work is six hours long comprising of nine, forty minute lessons. It is acknowledged that different schools will have variations on this system but the one presented is the baseline for all schools.

The Framework identifies the units and their titles that are available in any one year throughout the eleven years of schooling in Primary and Secondary education. Each unit has a set of teaching objectives that cover the six hour period that has been allocated. In this way it is possible to identify the content that can be reasonably expected to be taught. This is not a learning outcomes Framework. For each teaching objective there will be a range of learning outcomes according to the diversity of attainment of students within any one classroom.

The Teaching Objectives Framework is the heart of the curriculum.

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<tr>
<th>Art and Design</th>
<th>Teaching Objective Framework</th>
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<td>Unit Titles</td>
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<td>Form 5</td>
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<td>Teaching Block 1</td>
<td>Fantasy and Reality-</td>
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<tr>
<td></td>
<td>work inspired through direct observation of reality</td>
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<tr>
<td>Teaching Block 2</td>
<td>Fantasy and Reality-</td>
</tr>
<tr>
<td></td>
<td>work created through fantasy and imagination</td>
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<tr>
<td>Teaching Block 3</td>
<td>Fantasy and Reality-</td>
</tr>
<tr>
<td></td>
<td>work created through combined inspiration from reality and the imagination</td>
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<td>Form 4</td>
<td>Teaching Block 1</td>
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<td>Teaching Block 1</td>
<td>The Visual Elements in Concert</td>
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<td>Teaching Block 1</td>
<td>The Visual Elements in Concert</td>
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<td>Teaching Block 2</td>
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<td>Artists’ Expression</td>
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<td>Teaching Block 1</td>
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<td>Teaching Block 1</td>
<td>The Symphony of the Visual Elements</td>
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<td>Teaching Block 1</td>
<td>The Symphony of the Visual Elements</td>
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<tr>
<td>Teaching Block 2</td>
<td>Creating and Designing 3 Dimensional work</td>
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<tr>
<td></td>
<td>Visually explore, study and record imagined and observed images and forms using different media and the Visual Elements. Use this investigation to create and design three dimensional art work to communicate what is felt, seen and thought. Observe, reflect, describe and respond to own work, that of peers, craftsmen, artists and designers.</td>
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<table>
<thead>
<tr>
<th>Teaching Block 3</th>
<th>Creating and Designing Two dimensional work</th>
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<tbody>
<tr>
<td></td>
<td>Visually explore study and record imagined and observed images and forms using different media and the Visual Elements. Use this investigation to create and design two dimensional art works to communicate what is felt, seen and thought. Observe, reflect, describe and respond to own work, that of peers, craftsmen, artists and designers.</td>
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<tr>
<th>Form 2</th>
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<tr>
<th>Teaching Block 1</th>
<th>Enchanted Shapes</th>
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<tbody>
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<td></td>
<td>Investigate visually and record real and imagined images and forms by using different practices, media and the visual elements with special emphasis on shape. Use the results to create and design art works to communicate what is felt, seen or thought. Observe, reflect, describe and respond to art works</td>
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<thead>
<tr>
<th>Teaching Block 1</th>
<th>The Fascination of Forms</th>
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<tbody>
<tr>
<td></td>
<td>Investigate visually and record real and imagined images and forms by using different practices, media and the visual elements with special emphasis on form. Use the results to create and design art works to communicate what is felt, seen or thought. Observe, reflect, describe and respond to art works</td>
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<tr>
<th>Teaching Block 2</th>
<th>Let’s Explore Space</th>
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<td></td>
<td>Investigate visually and record real and imagined images and forms by using different practices, media and the visual elements with special emphasis on space. Use the results to create and design art works to communicate what is felt, seen or thought. Observe, reflect, describe and respond to art works</td>
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<tr>
<th>Teaching Block 3</th>
<th>The Nature and Character of Tones</th>
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<tbody>
<tr>
<td></td>
<td>Investigate visually and record real and imagined images and forms by using different practices, media and the visual elements with special emphasis on tone. Use the results to create and design art works to communicate what is felt, seen or thought. Observe, reflect, describe and respond to art works</td>
</tr>
<tr>
<td>Form 1</td>
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<tr>
<td>Teaching Block 1</td>
<td><strong>The Magic of Line</strong></td>
</tr>
<tr>
<td>Teaching Block 1</td>
<td><strong>A Kaleidoscope of Colour</strong></td>
</tr>
<tr>
<td>Teaching Block 2</td>
<td><strong>Patterns Galore</strong></td>
</tr>
<tr>
<td>Teaching Block 3</td>
<td><strong>Texture to See, Texture to Touch</strong></td>
</tr>
<tr>
<td>Year 6</td>
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<tr>
<td>Teaching Block 1</td>
<td><strong>Art Wonderful Art</strong></td>
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<tr>
<td>Teaching Block 2</td>
<td><strong>Art Wonderful Art</strong></td>
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<tr>
<td>Year 5</td>
<td>Art Wonderful Art</td>
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<td>Teaching Block 3</td>
<td>Art in Action</td>
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<td>Teaching Block 2</td>
<td>Art in Action</td>
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<td>Teaching Block 3</td>
<td>Art in Action</td>
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<tr>
<td>Year 4</td>
<td>Let’s Make Art</td>
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<tr>
<td>Teaching Block 2</td>
<td>Let’s Make Art</td>
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<tr>
<td>Teaching Block 3</td>
<td>Let’s Make Art</td>
</tr>
<tr>
<td>Year 3</td>
<td>Joy through Art</td>
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<tr>
<td>Teaching Block 2</td>
<td>Joy through Art</td>
</tr>
<tr>
<td>Teaching Block 3</td>
<td>Joy through Art</td>
</tr>
<tr>
<td>Year 2</td>
<td>Art is Fun</td>
</tr>
</tbody>
</table>
| Teaching Block 2 | Art is Fun | Experiment with different media and the Visual Elements especially shape, form and space. Use these to create and
design art work to communicate ideas, thoughts, feelings and solutions to problems. Look at, talk about own art work, that of others.

<table>
<thead>
<tr>
<th>Teaching Block 3</th>
<th>Art is Fun</th>
<th>Experiment with different media and the Visual Elements especially pattern and texture. Use these to create and design art work to communicate ideas, thoughts, feelings and solutions to problems. Look at, talk about own art work and that of others.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 1</td>
<td>Art Around our school</td>
<td>Find colour, tone, and line on the school premises. Create and design art work by using different media and the visual elements especially colour, tone and line. Look at and talk about own art work and that of others.</td>
</tr>
<tr>
<td>Teaching Block 2</td>
<td>Art Around our school</td>
<td>Find shapes, forms and space on the school premises. Create and design art work by using different media and the visual elements especially shape, form and space. Look at and talk about own art work and that of others.</td>
</tr>
<tr>
<td>Teaching Block 3</td>
<td>Art Around our school</td>
<td>Find patterns and texture on the school premises. Create and design art work by using different media and the visual elements especially pattern and texture. Look at and talk about own art work and that of others.</td>
</tr>
</tbody>
</table>

Below are Teaching Objectives Frameworks for Levels 3, 2 and 1. At these levels the framework is not year specific. The Frameworks provide a point of teaching reference for students whose chronological age does not match the attainment range for their age.

**Teaching Objective Framework for Level 3**

<table>
<thead>
<tr>
<th>Using Materials, Techniques, Skills and Media</th>
<th>Expressing Feelings, Ideas, Thoughts and Solutions</th>
<th>Evaluating and Appreciating</th>
</tr>
</thead>
<tbody>
<tr>
<td>The teacher will teach students to:</td>
<td>The teacher will teach students to:</td>
<td>The teacher will teach students to:</td>
</tr>
<tr>
<td>Identify the primary and some other colours and to become aware of the different tones. E.g.</td>
<td>Experiment with colour to discover secondary colours, different shades and tones.</td>
<td>Notice colour and match items that have the same colour or shade.</td>
</tr>
<tr>
<td>Light vs Dark Colours</td>
<td>To observe the environment and look out for colour, tone, shape, form, line, pattern and texture.</td>
<td>Apply colours to create patterns and textures. E.g. copy a pattern made up of 2 – 3 colours</td>
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<td>--------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td></td>
<td>To experiment with art materials and media and the visual elements to create different designs. E.g. making collages with junk material, etc.</td>
<td>Decide how to express a thought, idea or feeling in an art work. E.g. drawing different features on smileys</td>
</tr>
<tr>
<td></td>
<td>Explore further artistic techniques to create two-dimensional and three-dimensional art works.</td>
<td>Develop own preferences for art materials, media and techniques to work with.</td>
</tr>
</tbody>
</table>

### Teaching Objectives Framework for Level 2

#### Using Materials, Techniques, Skills and Media

_The teacher will teach students to:_

- Become aware of colour, shape and line and the relative vocabulary. E.g. pick/point at correct colour when spoken and/or signed

#### Expressing Feelings, Ideas, Thoughts and Solutions

_The teacher will teach students to:_

- Associate colour, shape and line with objects, animals and people. E.g. sort out/match same colour objects. Learn concept of big vs small

#### Evaluating and Appreciating

_The teacher will teach students to:_

- Note interesting features in their environment and talk about their colour, shape and line. E.g. become aware of different coloured flowers and enjoy smelling them

- Become aware of different art materials and medium and the relative vocabulary.

- Be able to look out for pattern and texture. E.g. become aware of soft vs. harsh objects through matching and sorting activities

- Be able to select some features in the environment and match them with pictorial representations e.g. drawings,
<table>
<thead>
<tr>
<th>Develop an idea of space and form. E.g. pay attention to print/finger draw etc. within the confines of the paper provided</th>
<th>Associate colour, shape and line with feelings. E.g. red with feeling hot, danger</th>
<th>Observe details in a pictorial representation by applying their knowledge of the visual elements. E.g. point at the big objects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attempt to produce art works using simple art material and media and the visual elements. Discover pattern and texture.</td>
<td>Experiment with different colours, shape and line to express feelings. E.g. fast painting strokes meaning hurry, slower painting strokes meaning relaxed</td>
<td>Be able to select some features in the environment and match them with three-dimensional forms e.g. similar objects, models, sculptures (all varying in size).</td>
</tr>
<tr>
<td>Explore more art techniques using their knowledge of art materials and media and the visual elements to produce two-dimensional art works.</td>
<td>Develop different art techniques using different art materials and media and their knowledge of visual elements to produce two-dimensional art works.</td>
<td>Observe details in a three-dimensional form by applying their knowledge of the visual elements. E.g. compare size, colour, shape, textures in objects</td>
</tr>
<tr>
<td>Explore more art techniques using their knowledge of art materials and media and the visual elements to produce three-dimensional art works. E.g. exploring playdough</td>
<td>Develop different art techniques using different art materials and media and their knowledge of visual elements to produce three-dimensional art works. E.g. experimenting with papier mache, clay</td>
<td>Sort pictorial representations and three-dimensional forms according to like/don’t like, nice/ugly, big/small, rough/smooth or soft, etc.</td>
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</table>

**Teaching Objectives Framework for Level 1**

<table>
<thead>
<tr>
<th>Using Materials, Techniques, Skills and Media</th>
<th>Expressing Feelings, Ideas, Thoughts and Solutions</th>
<th>Evaluating and Appreciating</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Encounter</strong> people and objects in the environment: development of sensorimotor cognition strands through activities that provide opportunities for students to experience different types of art</td>
<td><strong>Encounter</strong> people and objects in the environment: development of sensorimotor cognition strands through activities that aim at experiencing different art materials, media and techniques as</td>
<td><strong>Encounter</strong> people and objects in the environment: development of sensorimotor cognition strands through activities that aim at enjoying working with art materials.</td>
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<td>materials, techniques and media.</td>
<td>a form of therapy.</td>
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<td><strong>Aware of</strong> people and objects in the environment: development of <strong>sensori-motor cognition strands</strong> through activities that aim at becoming aware of colour and shape.</td>
<td><strong>Aware of</strong> people and objects in the environment: development of <strong>sensori-motor cognition strands</strong> through activities that aim at becoming aware that art can provide great enjoyment.</td>
<td><strong>Aware of</strong> people and objects in the environment: development of <strong>sensori-motor cognition strands</strong> through activities that aim at becoming aware of images.</td>
</tr>
<tr>
<td><strong>Respond to</strong> people and objects in the environment: development of <strong>sensori-motor cognition strands</strong> through activities that aim at developing concepts of colour, shape and texture.</td>
<td><strong>Respond to</strong> people and objects in the environment: development of <strong>sensori-motor cognition strands</strong> through activities that aim at increasing enjoyment in art and developing preferences for particular techniques, colour etc.</td>
<td><strong>Respond to</strong> people and objects in the environment: development of <strong>sensori-motor cognition strands</strong> through activities that aim at becoming more interested in images of objects and people.</td>
</tr>
<tr>
<td><strong>Engage with</strong> people and objects in the environment: development of <strong>sensori-motor cognition strands</strong> through activities that aim at developing hand-eye coordination and fine motor skills.</td>
<td><strong>Engage with</strong> people and objects in the environment: development of <strong>sensori-motor cognition strands</strong> through activities that aim at increasing interest in producing art works.</td>
<td><strong>Engage with</strong> people and objects in the environment: development of <strong>sensori-motor cognition strands</strong> through activities that aim at matching images to real objects and persons.</td>
</tr>
<tr>
<td><strong>Participate in activities of</strong> people and objects in the environment: development of <strong>sensori-motor cognition strands</strong> through activities that aim at increasing participation with adults and peers in producing art works.</td>
<td><strong>Participate in activities of</strong> people and objects in the environment: development of <strong>sensori-motor cognition strands</strong> through activities that aim at exploring more techniques with different art media and materials.</td>
<td><strong>Participate in activities of</strong> people and objects in the environment: development of <strong>sensori-motor cognition strands</strong> through activities that aim at matching images to real objects or people with less support.</td>
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</tbody>
</table>
2.5 The value of a unitised curriculum

There is a clear relationship between the volume of content to be taught as projected within a syllabus/course of study and the level of attainment that each student can achieve. The greater the volume of content then less time is available for teaching each aspect of that content. By writing a unitised curriculum the balance between the range of content and the time available for student learning can be achieved. For this new curriculum, in many areas this has meant a reduction in what was being offered in the preceding syllabus. Each unit then has a specific set of objectives which can be reasonably expected to be learned of the allocated time for that unit is made available on the school timetable.

In addition by having a unitised curriculum it is easier for the teacher and the subject Head of Department to manage the curriculum for they are able to quantify the number of specific objectives that it has been possible to deliver and subsequently to make decisions about which units should be presented in which order throughout each year of schooling.

2.6 Strands of learning for Art and Design

A strand of learning represents a goal that a student can attain throughout Primary and Secondary education. Each subject will have several strands of continuous learning called attainment level descriptors, which begin in Year One of Primary school and end in Form Five of Secondary school. Each strand is defined and the strands for Art and Design are:

**Strand 1: Using Materials, Techniques, Skills and Media**

Students acquire confidence in using different materials, techniques and processes, to make art works that express and explore their own views of the world and their response to visual problems. Students achieve this by investigating visually and recording, by drawing, painting, modeling and taking photographs etc. The language of Aesthetics is practiced through activities where students use media and the visual elements, in varying contexts.

**Strand 2: Expressing Feelings, Ideas, Thoughts and Solutions**

Students express their thoughts and feelings through the making of forms, images and artefacts. The students make concrete their ideas and find solutions to the problems that arise in the process of
creating an expressive work or carrying out a design a project. Communicating and presenting the results of such activities provide opportunities to clarify their intentions and to share their ideas with others.

Strand 3: Evaluating and Appreciating

Students will have opportunities for observing and reflecting on both processes and products when looking at their own work, in the work of their peers and in reproductions, texts, works in galleries and museums, together with audio-visual material on the work of artists and designers across a wide range of cultures. They will have opportunities to describe and respond to these works by making personal judgements and ultimately critical appraisals.

2.7 The use of the level descriptors for Art and Design

There are ten levels of level descriptors. Level Four is equivalent for Year One and two in Primary school and each level then progress at two yearly intervals.

Each strand of learning has a set of attainment levels which describe the progression in student learning. There are ten level descriptors that cover the full range of attainment of ALL students. The level descriptor Four is indicative of what the average student can learn by the end of Year Two in Primary education. Each subsequent level represents the range of attainment that an average student can be expected to achieve every two year years. Attainment levels one, two and three are indicators for students who may not attain level four at the end of Year Two. Attainment level ten is for those students who significantly exceed the expected level of attainment at Form Five.

The attainment level descriptors are observable statements of learning outcomes that students can attain. There are approximately eight of these statements in each level descriptor. The statements are referred from the Teaching Objectives Framework and indicate a sample of what can be expected to be learned. Once a student has attained the majority of the learning outcome statements in a level descriptor they are assumed to be working within the next level. The level descriptors for Art and Design are:

**Strand 1 Title: Using Materials, Techniques, Skills and Media**

**Strand Definition:**

This strand offers a study of the use different materials and media to make art works together with a study of the skills and techniques necessary when employing these materials and media. The strand also deals with the knowledge of the language of aesthetics through the use of the visual elements.

Students acquire confidence and skill in using a wide range of materials, techniques and processes through which they can explore and express their own view of the world and respond to visual problems and tasks. They will achieve this by investigating visually and recording, for example when drawing, painting, modelling and taking photographs. Such activities will involve students in using media
and the visual elements of line, form, colour, tone, pattern and texture, in varying contexts.

**Attainment Level 1**

Students encounter activities and experiences through the observation of the visual arts e.g. of brilliant colours in paint or otherwise. They begin to show interest in people, events and objects, e.g. by looking around at different shapes or textures in outdoor and indoor environments. They accept and engage in coactive exploration, e.g. together with adult or peer feeling textures whilst exploring their sensory qualities. Students begin to be proactive in their interactions. They communicate consistent preferences and affective responses, e.g. by giving distinctive responses to different art materials or media. They recognise familiar people. They perform actions, often by trail and improvement, and remember learned responses over short periods of time e.g. they may attempt to activate an object or tool by giving it back to an adult. They cooperate with shared exploration and supported participation, e.g. by stroking, shaking or folding papers of different colours.

**Attainment Level 2**

Students investigate a range of materials by exploring their sensory qualities. They handle tools and use materials purposefully and can make marks on a surface with fingers or tools e.g. pressing objects into clay or putting paint on paper. They can explore materials by experiencing their tactile qualities, for example during collage work. Students can anticipate what the next step will be and participate with others. They choose tools appropriately according to the activity e.g. picking brushes or rollers for painting and practice new skills with less support. They can also show awareness of the versatility of their medium and begin to carry out simple processes. They show they can create and apply familiar techniques to a task e.g. applying glue to a surface to make materials stick together in making a model.

**Attainment Level 3**

Students gain, strengthen or make general use of their skills, knowledge, concepts or understanding. Attend to simple instructions given by familiar adult, when an activity is modelled, can imitate the use of tools and simple actions e.g. cutting. Recognise the features of an object and understand its relevance, significance and use. They gather appropriate materials and take part in an activity. They gain an introductory understanding of colour and are able to name the colours red, blue, yellow, black and white. They purposefully choose colours or techniques. They show confidence in using a variety of processes and make appropriate use of tools and materials. They gain skills, develop their ideas and use materials and processes, working in two and three dimensions. They finish a piece of work following an established pattern, e.g. gathering appropriate materials, taking part in an activity and stopping when finished.
Attainment Level 4

Students will observe and record from selected sources of the environment with support. They are familiar with a range of common art materials such as paper, paint and crayons. They draw, paint, model and construct from observed objects e.g. friends, toys, houses and plants. They experiment with and explore a given range of media freely and spontaneously e.g. crayons, paint, plasticine, fabric. They can use line freely to make shapes. Students are aware of the properties of art materials, e.g. to make simple compositions or build structures. They recognise all primary and secondary colours. Can recognise the various qualities of texture and surface. They use simple modelling materials e.g. clay, play dough, plasticine to create three dimensional constructions.

Attainment Level 5

Students will observe and record from given sources, what is around them through drawing, painting, sketching, modelling and constructing. They can select from a given range of media. They can use media in a free and spontaneous way. They can show some organisation and control of the media they use. e.g. mixing paint in a tray for a particular purpose. They can control lines to make shapes and show some understanding of scale. They make compositions or structures in three dimensions. They identify colours made through mixing the three primaries. They can use colour to e.g. denote emphasis or make simple patterns, show distance.

Attainment Level 6

Students will with guidance, attempt detail in their work. They use a given number of ways of recording in 2-Dimension e.g. drawing, painting, sketching. They use a given number of ways of recording in 3-Dimension e.g. modelling, constructing. They experiment with a given range of media. They demonstrate basic understanding of the uses and limitations of different media e.g. the quality of paint as opposed to pencil drawing. They use the visual elements with guidance to make images and objects in 2-Dimension e.g. drawing and painting and in 3-Dimension e.g. modelling and construction.

Attainment Level 7

Students use a limited number of ways of ways of recording, e.g. annotating sketches, photography, computer draw and paint programmes.

They use a range of media in 2-Dimensional activities such as drawing, painting, printing, in 3 D constructions and modelling, or in fabric-related activities. They show some understanding of the qualities of a range of media. They show evidence of personal choice when using media. Students use with some guidance and show progressive understanding of the visual elements. They use the visual elements when making images and objects in 2- and 3-Dimensions. Baby.

Attainment Level 8

Students will use a number of ways of recording e.g. drawing, painting, sketching, constructing,
Strand Definition:

This strand deals with the expression of the students’ thoughts and feelings through the making of forms and images. The strand encourages the students to make concrete their ideas and find solutions to the problems that arise in the process of creating an expressive work or carrying out a design project. Students will be creating images and artefacts which reflect their perceptions of themselves, their experiences and their environment. They will be engaged in designing, planning and investigating in order to arrive at solutions to design tasks. Communicating and presenting the results of such activities provide opportunities to clarify their intentions and to share their ideas with others.

Attainment level 1

Students encounter activities and experiences by enjoying striking visual aspects in their environment, e.g. a colourful toy. They begin to show interest in people, events and objects, e.g. by looking around at different shapes, textures and colours. They accept and engage in coactive exploration, e.g. together with adult or peer touching and feeling textures. Students begin to be proactive in their interactions.
They communicate consistent preferences and affective responses, e.g. by reaching for glittery materials in preference to others, or showing consistent dislike of a certain colour or texture. They recognise familiar people. They perform actions, often by trail and improvement, and remember learned responses over short periods of time. They cooperate with shared exploration and supported participation and apply solutions systematically to problems, e.g. tipping a container inorder to pour out its contents or moving hand over different surfaces in different directions.

**Attainment Level 2**

Students can show preferences for activities e.g.by using a preferred medium like clay and begin to carry out simple processes. They express their feelings, likes and dislikes for different kinds of activities. They make marks intentionally on a surface with fingers or tools. Show an active interest in a range of tools and materials and have an intention to create. They apply familiar techniques to a task and know that certain actions will provide foreseen results, for example by shaping and manipulating maleable materials to produce a desired effect. Students respond in different ways to art, craft and design through their senses, and begin to try out methods to produce images and express their ideas. They begin to experiment with a range of materials exploring their sensory qualities by experiencing different textures e.g. rough and smooth.

**Attainment Level 3**

Students show an intention to produce a piece of work. They explore materials in increasingly more complex ways. Students involve themselves in communicating ideas and events through their use of colour, line and tone. Working in two dimensions they may intentionally represent or symbolize an object or an emotion. They develop their practical and creative skills and improve their control of materials and tools. Their choice of colours and techniques is purposeful. They can choose tools to create their own decorations and explore ideas for example by pressing and making indentations into a slab of clay. They are able to involve themselves in developing their own ideas and use their materials to work in two or three dimensions. They can finish a piece of work following an established pattern of activity, e.g.gathering appropriate materials, taking part in the activity and stopping when the work is finished.
Attainment Level 4

Student will produce two and three dimensional images and objects that express personal ideas and feelings. They express personal ideas and feelings in picture forms and in three dimensions. Their images or structures are recognisable and with some help they can communicate their ideas verbally. Students can use symbols to express ideas and can communicate their ideas, feelings, events and experiences through their use of line and form. They are aware that they can use art materials or tools to produce a pattern or pictures. They are aware that paint can run and can be wet to touch. They use given materials with some evidence of planning to solve a simple problem or task in modelling and constructing. They can produce images or structures that represent real objects or events, or that are completely imaginary.

Attainment Level 5

Students will create paintings; models and constructions form imagination and observation. They solve problems or tasks by selecting and organising two and three dimensional material from a given range. Students paint/draw a personal picture. They begin to represent space and distance. They use colour to express emotions. Students show expression of personal ideas as part of visual/tactile response to the environment.

Attainment Level 6

Students will produce images which show some understanding of the visual elements. They use the visual elements in drawing, painting modelling and constructing. They show an ability to plan ahead. They show an ability to select, organise and control materials in order to solve a specified problem or task. Students convey feelings, ideas and emotions, real or imagined in two and three dimensions. They also show personal response to what is seen.

Attainment Level 7

Students produce images which show further understanding of the qualities of the visual elements. They use the visual elements with thoughtfulness in drawing, painting, modelling and constructing. They suggest by drawing, by a visual presentation and/or by simple models, at least one possible solution to a design problem. They produce a solution to a design problem. Students show an increased interest in representing what is seen and imagined. They use a range of visual devices to attempt realism for example in the use of space, colour, detail and pattern.

Attainment Level 8

Students will demonstrate considerable understanding of the use of visual elements. They do this in a wide range of activities, e.g. drawing, painting, sketching, constructing, photography and film, computer draw and paint programmes. They will evaluate ideas in response to a design brief and select the most appropriate response. They can produce a sample. They will use a range of visual methods to express feelings and ideas. They attempt perspective, realistic colour and tone. They use abstraction to express
fantasy and imagination.

**Attainment Level 9**

Students will demonstrate insightful understanding of the use of visual elements. They do this in a wide range of activities, e.g. drawing, painting, sketching, constructing, photography and film computer draw and paint programmes. They will evaluate ideas in response to a design brief and select the most appropriate response. They can produce a sample. They will use a wide selection of visual methods to express feelings and ideas. They attempt both aerial and visual perspective, realistic colour and tone. They use abstraction to express fantasy and imagination, occasionally using images from the mass media.

**Attainment Level 10**

Students should be able to in designing, solve a variety of design problems, taking into account the requirements of the brief, investigating visual sources and a range of relevant information in the form of notes and sketches. They consider a number of possible approaches which reflect an awareness of possible problems and some personal interests. They demonstrate suitable solutions in roughs and working drawings, showing evidence of personal selection, ideas and inventiveness. In expressive activity, students should be able to respond to a wide variety of stimuli. They identify and develop from these a range of possibilities. They express these possibilities visually, demonstrating understanding of form. Students should be able to explore their feelings, thoughts and ideas in response to stimuli. They express and communicate personal ideas and feelings in visual terms. They arrange and organise work coherently, making alterations and modifying formats. They communicate suitable solutions to a range of design problems, showing understanding of the design brief and giving well-designed reasons for their choice.

**Strand 3 Title: Evaluating and Appreciating**

**Strand Definition:**

This strand deals with art criticism and the study, appreciation and evaluation of art, design and craft work. This strand uses knowledge of the visual language together with knowledge of skills and techniques in the use of media and materials to enable/empower the pupil to appreciate, evaluate and talk about art works. Students will have opportunities for observing and reflecting on both processes and products: in their own work, in the work of their peers and in reproductions, texts, works in galleries and museum, and audio-visual material on the work of artists and designers across a wide range of cultures. They will have opportunities for describing these and for responding to them by making personal judgements and ultimately critical appraisals.

**Attainment Level 1**

Students encounter activities and experiences through the enjoyment and appreciation of a beautiful landscape or composition of colours. They begin to show interest in people, events and objects, e.g. by looking around at different shapes or patterns in their environments. They accept and engage in coactive exploration, e.g. together with adult or peer manipulating textures whilst feeling their sensory qualities.
Students begin to be proactive in their interactions. They communicate consistent preferences and affective responses, e.g. by giving distinctive responses to different art materials or media, by choosing one colour of paint rather than another. They recognise familiar people. They perform actions, often by trial and improvement, and remember learned responses over short periods of time. They cooperate with shared exploration and supported participation, e.g. by feeling the textures in a collage or a three dimensional structure.

**Attainment Level 2**

Students join in commenting in some way on a creative activity, as well as on the action of others. They develop imitation skills and experience a sense of pride in their work. They demonstrate preferences for materials and methods used, for example may prefer finger painting to the use of a paintbrush. Can express their appreciation of art activities and assist in the preparation of materials and tools for an exercise. With support, communicate what they see, feel and think. They start developing their knowledge of the process of making, for example selecting and gathering suitable resources for a piece of work. They touch and handle materials to enjoy the texture and sensation of using art materials and can produce their own creative work in very simple ways. They can comment in simple words about their own work, the work of others, projects or any interesting works that are on display.

**Attainment Level 3**

Students explore and observe similarities, differences and patterns in objects, materials and in environment. Engage in a preferred activity or exercise and join in describing picture or an object by using simple words. They may comment on the work of other students and on their own work and show initial signs to evaluate works and an element of appreciation. They communicate their ideas about them when prompted, and can comment on their likes and dislikes of a creative project. They can make their observations on changes that result from actions and describe the changes when asked about them. They are able to do so when for example they mix up to three colours to produce another colour. They know that paintings, drawings and sculptures have significance and meaning. They use a growing art vocabulary and begin to express meaning in their own work.

**Attainment Level 4**

Students can use words and/or drawings to describe or explain what they are doing. With support they can make observations about art materials or works produced. They can in talking, make a personal response to some aspect of the work created. Students describe and talk about art, they can comment about what they like or dislike about it and with support can give their reasons for this. They can use art vocabulary related to colour names and some art materials correctly, e.g. they can speak about their preferred colours or subjects when drawing. Students can use symbols to express ideas and views.
regarding images or objects. They use their own observations to ask and provide simple answers to questions about displayed works. They carry out activities with enjoyment and can comment about this with others.

Attainment Level 5

Students with support can look at a work of art, a reproduction or an artefact, consider it and talk about it. They can name some of the things they see in an image (people or parts of people, objects, buildings etc.) When talking about art works they can use simple vocabulary to identify and/or describe colour, lines, shapes, texture and pattern. They can indicate a few similarities and differences found in the art work or artefact.

Attainment Level 6

Students with support consider and discuss information from supplied sources about a work of art, a reproduction or an artefact. They can identify and name some of the things they see in an image (people or parts of people, objects, buildings etc.) and recognise if it represents something real, imagined or tell a story. They can tell if the work is from observation, memory or imagination. When talking about art works they can use appropriate vocabulary to identify and/or describe colour, lines, shapes, forms, texture and pattern. They can make comparisons of art and design works.

Attainment Level 7

Students should be able to research information about an artist or designer and their work from supplied sources e.g. slides, digital images, school library. They can make a judgement about their own or an artist’s work using appropriate vocabulary. When talking about art works they can use appropriate vocabulary to identify and/or describe colour, lines, shapes, forms, texture and pattern. They can identify the media used to create the work and comment about the time it took to create it. They make a personal evaluation of own and others’ designs. They show some understanding of a design process.

Attainment Level 8

Students should be able to do research about an artist or designer and their work by collating materials and information from several sources e.g. art reference books, postcards, or internet. Students can make one or two personal statements about their own and an artist or designers’ works. They show an understanding of the use of the visual elements to support their opinions, as well as an understanding of the media employed. Students show they can evaluate their own design work showing understanding of the design process, indicating possible changes where appropriate.

Attainment Level 9

Students should be able to do research about an artist or designer and their work by collating materials and information from several sources e.g. art reference books, magazines, or internet. Students can make a number personal statements about their own and an artist or designers' works. They show an understanding of the application of the visual elements to support their opinions as well as an understanding of the media employed. Students show they can evaluate their own work as well as
describe it and reflect on it. They also evaluate their own design work and show understanding of the design process, indicating modifications where appropriate.

**Attainment Level 10**

Students should be able to evaluate their own personal experiences and the relevance of these experiences to their work in Art and Design. They can make judgements on their own work and that of others, particularly artists and designers. They evaluate their solutions to design problems, giving reasons for their views. They express personal opinions on issues related to art, design and the environment. They appreciate the contributions to society of the work of artists and designers.

**2.8 The use of attainment level descriptors for national benefit**

Attainment levels of all students should be assessed on an annual basis. This will allow all of the stakeholders to evaluate the progression in learning made by each student. The data collected will give a simple score of the number of the attainment level reached in each strand. This data can then be collated by the school, by the college or by the Department of Curriculum and e Learning to give a general picture of year-on-year progression of attainment. The data base will be used with clearly defined ethical responsibility so that students, classes or schools cannot be identified by other schools or colleges. This data is very informative to support school development planning as it provides objective evidence of the year on year progress that is being made. This data can be used to celebrate success.

**2.9 The use of attainment level descriptors within lessons**

The reference to the learning outcomes levels within a unit is to give the teacher a rough guide as to the possible range of student attainment in a class. Within a class of students there will be a wide range of diverse levels of student attainment. In order to support the teacher to appreciate this wide range of attainment it is possible to gauge the approximate level within which students find themselves. For example in Form One we might expect all students to be at level seven which is the average level for that year group. Yet within such a Form One class the diverse range of ability may be as wide from level one to level nine. In planning a lesson, teachers need to be aware of this possible range of ability so that effective teaching and learning can take place.

It is very important to note that a level descriptor is a very indiscrete tool not to be used for weekly purposes at a classroom level. Within any one level reflecting annual attainment there will be many sub levels of attainment that different students will reach during a teaching block. Teachers should see the use of level descriptors within the subject units to be a rough guideline to encourage their own more precise planning.
2.10 **Avoiding the misuse of attainment levels and indicators of learning outcomes**

It is important to note that the results of the attainment level assessment should not be used:

- to inform daily progression because any group of students at one attainment level will still have different levels of understanding.
- to indicate a student’s actual level of attainment on a daily basis.
- to assume that working in one lesson is equivalent to a year’s progress.
- to assume that a student attainment level is the same across different units within the same strand.

2.11 **Avoiding the misuse of learning outcomes**

The indicators of learning outcomes identified within the units are based on the teaching objectives. These indications of learning outcomes are only a small sample of all the learning outcomes that will emerge from a teaching objective. Teachers need to be aware that there are many learning outcomes that different students will achieve during the course of a unit. Teachers should not teach to the learning outcomes.

It is also important that teachers do NOT assume that the indicators of learning outcomes in the unit reflect the focus of the whole unit. The driver of the units is the set of teaching objectives NOT the indicators of the few stated learning outcomes.

When using the indicators of learning outcomes in the units it is important to acknowledge that these are a very rough guide for the teacher to begin to bring down the extensive range of other possible learning outcomes that a teaching objective will facilitate.

3. **The structure of units in the Art and Design curriculum documentation**

The curriculum documentation is written in the form of units and has the following content;

3.1 **Unit code and title**

The title of each unit reveals the content of the unit and each unit is coded for the schools or teachers to record information collected. The consecutive numbers 7 and 8 in the Form 1 and 2 units reflect the year of schooling and have no relation to the attainment levels.

3.2 **Strands and Attainment Levels**

Each unit reveals the specific strands that are being delivered so as to remind teachers of the teaching aim of that specific strand and provide relevant learning experience for students.

3.3 **The teaching objectives**

The specific objectives for each unit are drawn directly from the general objectives within the Teaching Objectives Framework. There are the specific teaching objectives within each unit. These unit specific objectives are in two categories, a set for those students who are within their year related range of ability and then a set for those whose ability requires a further level of assessment. Selected from
mainstream teaching objectives, these objectives are adapted to suit the needs of students with learning difficulties.

Teaching Objectives facilitate the focusing of knowledge, skill and attitude to be included in a unit. Usually there are three to five teaching objectives in a unit. Teachers may adjust the requirement of target attainment according to students’ abilities, and then plan teaching and a variety of class activities accordingly.

3.4 Vocabulary
Relevant vocabulary included in the units that students need to experience and learn.

3.5 Points to note
These should cover reference to the subject approach to teaching and learning, but they may refer to health and safety issues that teachers need to consider and deal when teaching the unit.

3.6 Resources
A list suggested teaching material required when teaching the unit. These include a variety of materials to support eLearning.

3.7 Examples of teaching experiences and activities.
The teaching and learning content of each unit should correspond to the teaching objectives of the curriculum units. Next to each exemplar teaching situation the specific teaching objective is clearly stated. The examples given for each specific objective reflect ideas to catalyse and inspire teachers to think of their own ideas and materials. The teaching examples indicate different activities for students who are attaining at different levels. The activities are also written in such a way as to encourage student centred learning. In creating student centred learning opportunities the teacher must appreciate the difference between teaching objectives for the lesson which indicate the focus of the learning opportunities provided, and the learning outcomes which indicate a range of possible responses that students may give.

3.8 Differentiated Learning Outcomes
The differentiated learning outcomes show an indicative range of attainment levels for different students. They are given as a rough guide to stimulate the teacher’s planning. In their class the range of attainment may be wider or narrower. In preparing the unit the teacher should reflect on the range of ability of the students in that class. There can do so by referring directly to the attainment levels. As a consequence of the range of attainment levels the teacher may need to plan for different teaching activities occurring at the same time.

4. The units for Art and Design

The units have three consecutive parts. The first part relates to the attainment levels of students between 5 to 8. The second part refers to attainment levels of students between 1 to 4 and in this part the objectives are similar to those in the first part but they may have been adjusted and this is indicated by the numbering of the objectives. The third part of the unit refers to eLearning activities that relate to all levels of attainment.

The teacher is expected to select the range of objectives (from parts one and two) needed according to the range of attainment levels of the students in their class.
5. **Assessment Strategies**

Assessment needs to be effective, meaningful and must have a purpose. The purpose of Assessment for Learning is to provide feedback for teachers and learners on the teaching and learning taking place on a day to day basis at classroom and school level. This evidence will enable the teacher to adjust the learning programme accordingly in order to improve the quality of learning. Assessment tasks and procedures should be consistent with the aims of each strand of the subject and with the activities being done in class to achieve these aims. In this way assessment will be a vital part of the learning programme. The teacher needs to think of assessment tasks that disclose what has been learnt, what needs further prompting and the next step in learning for the student.

Assessment strategies refer to the different method of data collection and how they are reported in both formative and summative contexts. A number of basic specific strategies include clear and shared learning intentions, specific and reachable success criteria, effective questioning, feedback that feeds forward, self and peer assessment. Assessment for learning and teaching is an essential part of promoting students’ active participation at the level of their understanding.

There is an important distinction between strategies to assess attainment as opposed to achievement. Assessment of attainment relates to the ‘academic’ work in the subjects of the curriculum. Assessment of achievement relates to the broader issues that relate to attainment but includes other concerns such as student effort and motivation. In this context we can have a student at level three who is a high attainer and a student at Level nine who is a low attainer. Understanding this distinction is important if the teacher is to ensure that effective progression in learning takes place.

Assessment of the attainment level descriptors should only be summative once a year. Attainment level descriptors contain a number of learning outcomes that reflect a small example of all the learning outcomes arising from the units and their objectives. In assessing an attainment level descriptor the teacher should recognize each of these learning outcomes and use ‘a best fit’ approach in deciding which learning outcomes within a level that a student has attained.

Assessment of unit-based work should be formative and ongoing. As students complete their work examples of it can be kept. The teacher may also make written comments in their own diary and separately encourage the students to write their own evaluation. The collection of this formative data can be used to inform the attainment level that best fits the student. It is important that the evidence be collected systematically to allow objective judgment as well as subjective reflections about the achievement of the learner.

A classroom culture where a growth mindset is promoted needs to be created. It is a culture where learning is a priority, where learners yearn for that information that will stretch their knowledge, where the classroom changes into learning communities. Assessment for learning strategies are further elaborated in the Appendices.

6. **Facilitating student centred learning with Curriculum documentation**

The curriculum documentation is written to encourage the teacher to ensure that every student has the maximum opportunity to learn. One important element is to reflect on the limited ineffectiveness of the
traditional approach of teacher led teaching and to explore the value of student led or student-centred learning as being a more efficient way of encouraging student curiosity and raising standards of educational attainment.

Traditionally teachers have taught their children using the same teacher led teaching method. They have decided on the lesson and one activity that they want to teach to all the students at the same time. Every student had the same experience and sometimes follow up exercises were given for two different groups. Teachers are encouraged to change their approach from teacher-led teaching to student centred learning.

6.1 What is student centred learning?

There are many terms linked with student centred learning e.g. Flexible learning, Experiential learning, Self-directed learning. Student centred learning is about the shift in power from the expert teacher to the student learner. The paradigm shifts away from teaching is to move the power from the teacher to the student. In student centred learning, the teacher is a leader who is perceived as an authority figure in the classroom but is sufficiently secured within themselves to trust the capacity of the others to think and learn independently. The learner has full responsibility for their learning.

6.2 Teacher-centred and student-centred contrary perspectives

There are two very different approaches to enabling students to learn. One is where the teacher tells the students all that he thinks that they need to know. This direct teaching usually is given from the front of the class and the teacher controls all of the student learning by efficiently telling the whole class what needs to be learned. At the other end of the spectrum there is student centred learning where the teacher is only one of several resources available to each different student in the class.
6.3 Student centred learning continuum

Within the various understanding of student centred learning there are a range of interpretations. In the limited interpretation the teacher decides what each individual student needs to know and sets the behavioural objectives to indicate efficient learning. Each student only learns what the teacher tells them but the information is specific to each student. At the other end of the student learning continuum, the student is in total control of what they learn and when they learn it. In this case the transmission of knowledge is not so efficient, but the control of the learning and understanding is very effective because it is monitored by the student themselves. In between these two extremes there are many interpretations of the term ‘student centred learning’. The key factor is that the student is in control of the flow of learning information, no matter what are their disability related barriers to learning.

6.4 Implications for curriculum design

In order for a teacher to encourage student centred learning, there needs to be a clear curriculum framework through which students can progress, week by week and year by year. This framework should provide a curriculum of opportunity for each student to follow during their career through school. At the school and classroom levels there needs to be effective and appropriate curriculum design with the following features:

a. The curriculum should be unitized with clear objectives
b. Within a unit students should have a choice of what they wish to learn in the lesson

6.5 Lesson planning for student centred learning

Student centred learning requires the teachers to plan their lessons effectively. A lesson plan for a group of students should address the following questions:

a. Are the indicative learning outcomes clear
b. What are the identified learning processes for the beginning, middle and end of the lesson?
c. What resources are identified?
d. Is there any guidance for behaviour management?

6.6 Understanding the difference between the teacher’s lowest conceptual level which is above the students’ highest conceptual level.

Across all of the range of ability there is evidence that teachers in a teacher-led teaching context, significantly overestimate the level at which their students are capable of learning. Teachers use their lowest level of understanding to give students access to their lessons. Again and again, at all levels of attainment, there is evidence that the majority of students in a class fail to have a high enough level of
understanding to appreciate the lowest level of their teacher. The teachers continue to teach what they know but fail to recognize that many of the students have no idea what the teacher is saying or doing. This is one of the greatest problems with teacher led teaching. Student centred learning would overcome this as the students level of understanding is the starting point which they control.

7. The use of curriculum documentation for curriculum planning

The value of unitized Curriculum documentation is that they support curriculum planning at both the school and classroom level. This approach means that the attainment of the students drives the balance of the school curriculum and not the subjective decisions of the school’s senior management team. In the three tables below we can see that a unitized curriculum within a scheme of work allows the senior managers monitor at a school level what is happening at the classroom teaching level as well as at the classroom timetabling level.

7.1 Teaching hours for the allocation of subjects

At a school level the scheme of work allows for the allocation of teaching hours in Form One

<table>
<thead>
<tr>
<th>Maltese</th>
<th>English</th>
<th>Mathematics</th>
<th>Integrated Science</th>
<th>Religion</th>
<th>Total teaching hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>84</td>
<td>105</td>
<td>105</td>
<td>84</td>
<td>42</td>
<td></td>
</tr>
<tr>
<td>Geography</td>
<td>Arts Education</td>
<td>History</td>
<td>PSD</td>
<td>Social Studies</td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>21</td>
<td>42</td>
<td>42</td>
<td>21</td>
<td></td>
</tr>
<tr>
<td>ICT</td>
<td>PE</td>
<td>+ 1 foreign language option</td>
<td>+ other option</td>
<td></td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>42</td>
<td>84</td>
<td>42</td>
<td></td>
<td>756 hours</td>
</tr>
</tbody>
</table>

(The above data is based on scholastic year 2010-2011)

7.2 Yearly planning statement

This document can then be converted into a yearly planning statement for each class. This allows the senior management team to understand and then monitor what is happening across one year in any one class.
## School Yearly Planning 2011-2012

### Form One

<table>
<thead>
<tr>
<th></th>
<th>Teaching Block (TB1)</th>
<th>Teaching Block (TB2)</th>
<th>Teaching Block (TB 3)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Maltese</strong></td>
<td>Unit 1 Jiena</td>
<td>Unit 5 Logħob u festi</td>
<td>Unit 9 Jason</td>
</tr>
<tr>
<td></td>
<td>Unit 2 Film li ma ninsa qatt</td>
<td>Unit 6 Sur editur</td>
<td>Unit 10 Storja ta’ vera</td>
</tr>
<tr>
<td></td>
<td>Unit 3 Int sabiħa o Malta tagħna</td>
<td>Unit 7 L-istorja ta’ Jo</td>
<td>Unit 11 Naraw fejn ahna</td>
</tr>
<tr>
<td></td>
<td>Unit 4 Darba waħda</td>
<td>Unit 8 L-iskola</td>
<td>Unit 12 Ahna tfal bravi</td>
</tr>
<tr>
<td><strong>Maths</strong></td>
<td>Unit 1 Properties of whole numbers</td>
<td>Unit 6 Metric measures &amp; time</td>
<td>Unit 11 Using letters instead of numbers</td>
</tr>
<tr>
<td></td>
<td>Unit 2 Angles</td>
<td>Unit 7 Triangles &amp; scale drawing</td>
<td>Unit 12 What are directed numbers?</td>
</tr>
<tr>
<td></td>
<td>Unit 3 Number patterns &amp; co-ordinates</td>
<td>Unit 8 Accuracy &amp; number machines</td>
<td>Unit 13 What are straight line graphs &amp; transformations</td>
</tr>
<tr>
<td></td>
<td>Unit 4 Decimal number &amp; money</td>
<td>Unit 9 Polygons &amp; symmetry</td>
<td>Unit 14 Solid Shapes &amp; Volume</td>
</tr>
<tr>
<td></td>
<td>Unit 5 Fractions</td>
<td>Unit 10 Displaying data, central tendency &amp; probability</td>
<td>Unit 15 Solid Shapes &amp; Volume</td>
</tr>
<tr>
<td><strong>Geography</strong></td>
<td>Unit 1 Map Detectives</td>
<td>Unit 2 Exploring Malta (1)</td>
<td>Unit 3 Exploring Malta (2)</td>
</tr>
<tr>
<td><strong>English</strong></td>
<td>Unit 1 The way we live</td>
<td>Unit 6 Friends</td>
<td>Unit 11 Different ways of buying &amp; selling</td>
</tr>
<tr>
<td></td>
<td>Unit 2 Going on holiday</td>
<td>Unit 7 The right job for me</td>
<td>Unit 12 Let’s imagine</td>
</tr>
<tr>
<td></td>
<td>Unit 3 The world of science</td>
<td>Unit 8 Let’s sing &amp; play</td>
<td>Unit 13 Television</td>
</tr>
<tr>
<td></td>
<td>Unit 4 The world around us and beyond</td>
<td>Unit 9 Adventure</td>
<td>Unit 14 Follow the rules</td>
</tr>
<tr>
<td></td>
<td>Unit 5 Families</td>
<td>Unit 10 Let’s play this game</td>
<td>Unit 15 Let’s save the world</td>
</tr>
<tr>
<td><strong>History</strong></td>
<td>Unit 1 Beyond history</td>
<td>Unit 3 The Roman eagle spreads its wings</td>
<td>Unit 5 Under the rule of the crescent</td>
</tr>
<tr>
<td></td>
<td>Unit 2 Meeting civilizations</td>
<td>Unit 4 The Roman eagle spreads its wings</td>
<td>Unit 6 Studying history</td>
</tr>
<tr>
<td><strong>Social Studies</strong></td>
<td>Unit 1 Living in a society –socialisation</td>
<td>Unit 2 Living in a democracy</td>
<td>Unit 3 – The person as a consumer – goods &amp; Services</td>
</tr>
</tbody>
</table>
| **PSD** | Unit 1  Getting to know my new school environment & peers  
Unit 2  All about me | Unit 3  Respecting ourselves & others  
Unit 4  Understanding growing up changes & making responsible choices | Unit 5  Roles & responsibilities within different social contexts  
Unit 6  Making good use of my time |
| **Music (General)** | Unit 1  Musicking | Unit 2  Music in Art  
Unit 3  Intervals & aural awareness  
Unit 4  The triad & its application | Unit 3  A golden treasury of medieval & Renaissance music  
Unit 5  Writing & performing strands |
| **Music (Option)** | Unit 1  note values, time names & signatures  
Unit 2  Pitch & pitch inflections | Unit 3  A golden treasury of medieval & Renaissance music  
Unit 4  The triad & its application | Unit 5  Writing & performing strands |
| **Textile Studies** | Unit 1  One way to sew it up!  
Unit 2  Christmas Stocking | Unit 3  taking a look at textiles  
Unit 4  rags to riches | Unit 5  Creative Design  
Unit 6  Colour your Life |
| **PE** | Unit 1  Fast, high & far  
Unit 2  Let’s dance | Unit 3  That’s a cool work out  
Unit 4  A cool routine | Unit 5  Just between us  
Unit 6  Send it up high  
Unit 7  Outdoor 1 – follow it, find it |
| **Integrated Science** | Unit 1  In the lab  
Unit 2  Grouping  
Unit 3  Ecology  
Unit 4  Energy around us | Unit 5  Energy & sustainable living  
Unit 6  Chemical reactions  
Unit 7  Cells & body systems  
Unit 8  Reproduction | Unit 9  Acids & alkalis  
Unit 10  Materials  
Unit 11  Electricity  
Unit 12  Forces |
| **Religion** | Unit 1  My journey  
Unit 2  The power within | Unit 3  Choosing the way  
Unit 4  The backpack | Unit 5  Challenges  
Unit 6  Never alone |
| **Art** | Unit 1  The magic of line | Unit 2  A kaleidoscope of colour  
Unit 3  Patterns galore  
Unit 4  Texture to see texture to touch | |
<p>| <strong>Drama</strong> | Unit 1  Let’s polish it | Unit 2  How do I behave? | Unit 3  We become someone else |</p>
<table>
<thead>
<tr>
<th>Language</th>
<th>Unit 1</th>
<th>Unit 2</th>
<th>Unit 3</th>
<th>Unit 4</th>
<th>Unit 5</th>
<th>Unit 6</th>
<th>Unit 7</th>
<th>Unit 8</th>
<th>Unit 9</th>
<th>Unit 10</th>
<th>Unit 11</th>
<th>Unit 12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Italian</td>
<td>Start</td>
<td>Myself &amp; others</td>
<td>On the road</td>
<td>In the city</td>
<td>What do you do?</td>
<td>My identity</td>
<td>The family</td>
<td>Whose is it?</td>
<td>My home</td>
<td>The Colours of life</td>
<td>Daily routine</td>
<td>What day is today?</td>
</tr>
<tr>
<td>French</td>
<td>Recognising French in various forms</td>
<td>My school mates</td>
<td>All about myself</td>
<td>My clothes, likes &amp; dislikes</td>
<td>Life at school</td>
<td>Consolidation &amp; revision</td>
<td>My family</td>
<td>Time &amp; date</td>
<td>Where am I?</td>
<td>Let's visit Paris!</td>
<td>Where is all?</td>
<td>Consolidation &amp; revision</td>
</tr>
<tr>
<td>German</td>
<td>Let's start</td>
<td>All about myself</td>
<td>Family &amp; friends</td>
<td>How much, how many?</td>
<td>Daily routine</td>
<td>What is the weather like?</td>
<td>Free time &amp; hobbies</td>
<td>Yes, of course</td>
<td>What I can do &amp; what I want to do</td>
<td>Have you heard?</td>
<td>At home</td>
<td>Consolidation &amp; revision</td>
</tr>
<tr>
<td>Arabic</td>
<td>Let's get started</td>
<td>The Arabic Alphabet</td>
<td>All about me</td>
<td>Identifying yourself &amp; others</td>
<td>Sentence structure &amp; punctuation</td>
<td>Family &amp; relatives</td>
<td>Colours, Shapes &amp; descriptions</td>
<td>My house; types of houses</td>
<td>My school &amp; its environment</td>
<td>Can you tell me where is.....?</td>
<td>Numbers (1-10) days of the week &amp; months</td>
<td>What I have learnt this year</td>
</tr>
<tr>
<td>Design &amp; Technology</td>
<td>Gifts of the forest</td>
<td>Plastic investigator</td>
<td>Test it yourself</td>
<td>Treasures from under ground</td>
<td>One way operation</td>
<td>Sensible energy sources</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ICT</td>
<td>Collecting and sharing information</td>
<td>Texts, pictures and numbers</td>
<td>Presenting and publishing information</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| **Spanish** | Unit 1 Ready, set, go!  
Unit 2 Hello, how are you?  
Unit 3 Where are you from?  
Unit 4 the family is well, thanks. | Unit 5 How hungry!  
Unit 6 Everyone has their favourite colour  
Unit 7 Home, sweet home  
Unit 8 Come on! | Unit 9 My daily routine  
Unit 10 It’s raining cats & dogs  
Unit 11 More beautiful than most  
Unit 12 Beach or mountain? |
| **Graph Communication** | Unit 1 grasping the principles of basic geometric construction  
Unit 2 constructing angles & patterns by means of compass & set squares | Unit 3 Constructing triangles & quadrilaterals  
Unit 4 Constructing circles & polygons | Unit 5 Projecting isometric drawings  
Unit 6 Introducing information graphics |
| **Home Economics** | Unit 1 Discovering Home Economics  
Unit 2 Pyramid power | Unit 3 Smart snacking  
Unit 4 Breakfast Time | Unit 5 Sweet Endings  
Unit 6 Roll up your sleeves |
7.3 Weekly Timetable

This document can then be used to identify a timetable for any one class according to the relevant teaching block.

<table>
<thead>
<tr>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
<th>Friday</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Maths</strong></td>
<td><strong>PSD</strong></td>
<td><strong>English</strong></td>
<td><strong>Int. Science</strong></td>
<td><strong>Geography</strong></td>
</tr>
<tr>
<td>Unit 1 Properties of whole numbers</td>
<td>Unit 1 Getting to know my school...</td>
<td>Unit 1 The way we live</td>
<td>Unit 1 In the lab</td>
<td>Unit 1 Map Detectives</td>
</tr>
<tr>
<td><strong>English</strong></td>
<td><strong>PSD</strong></td>
<td><strong>Maltese</strong></td>
<td><strong>Italian</strong></td>
<td><strong>Religion</strong></td>
</tr>
<tr>
<td>Unit 1 The way we live</td>
<td>Unit 1 getting to know my school...</td>
<td>Unit 1 Jiena</td>
<td>Unit 1 Start</td>
<td>Unit 1 My journey</td>
</tr>
<tr>
<td><strong>Maltese</strong></td>
<td><strong>PE</strong></td>
<td><strong>Maths</strong></td>
<td><strong>Religion</strong></td>
<td><strong>Maths</strong></td>
</tr>
<tr>
<td>Unit 1 Jiena</td>
<td>Unit 1 Fast, high &amp; far</td>
<td>Unit 1 Properties of whole numbers</td>
<td>Unit 1 My journey</td>
<td>Unit 1 Properties of whole numbers</td>
</tr>
<tr>
<td><strong>ALM</strong></td>
<td><strong>Italian</strong></td>
<td><strong>Maths</strong></td>
<td><strong>English</strong></td>
<td><strong>Italian</strong></td>
</tr>
<tr>
<td>Unit 1 Musicking</td>
<td>Unit 1 Start</td>
<td>Unit 1 Properties of whole numbers</td>
<td>Unit 1 The way we live</td>
<td>Unit 1 Start</td>
</tr>
<tr>
<td><strong>Maths</strong></td>
<td><strong>History</strong></td>
<td><strong>Italian</strong></td>
<td><strong>Maltese</strong></td>
<td><strong>Maltese</strong></td>
</tr>
<tr>
<td>Unit 1 Properties of whole numbers</td>
<td>Unit 1 Beyond History</td>
<td>Unit 1 Start</td>
<td>Unit 1 Jiena</td>
<td>Unit 1 Jiena</td>
</tr>
<tr>
<td><strong>Home Econ.</strong></td>
<td><strong>English</strong></td>
<td><strong>Int. Science</strong></td>
<td><strong>ICT</strong></td>
<td><strong>English</strong></td>
</tr>
<tr>
<td>Unit 1 Discovering home</td>
<td>Unit 1 The way we live</td>
<td>Unit 1 In the lab</td>
<td>Unit 1 Collecting &amp; sharing information</td>
<td>Unit 1 The way we live</td>
</tr>
<tr>
<td><strong>Home Econ.</strong></td>
<td><strong>Int. Science</strong></td>
<td><strong>PE</strong></td>
<td><strong>Social Studies</strong></td>
<td><strong>Int. Science</strong></td>
</tr>
<tr>
<td>Unit 1 Discovering home</td>
<td>Unit 1 In the lab</td>
<td>Unit 1 fast, high &amp; far</td>
<td>Unit 1 Living in a society-socialisation</td>
<td>Unit 1 In the lab</td>
</tr>
</tbody>
</table>
Such a system means that there is a direct and manageable link between what is being taught in the classroom and what is planned at a senior management level. This also means that the results of the attainment levels of student assessment can influence that balance of hours allocated to each subject. If this happens then it is possible to say that the balance of the subjects taught in any school is driven by the student’s level of attainment i.e. it is a student centred curriculum.

8. The important contribution of eLearning

eLearning is about making learning more flexible by providing access to tools that give greater possibilities to teaching and learning. The question, “What can teachers and students do today that they could not do without technology?” has to be the guiding rule that helps teachers and students use the tools to achieve skills that are expected in a 21st century learning environment. Digital technologies give control over to the users as to when and where they study while allowing them to develop at their own pace. Digital technology has the potential to provide a student centred learning environment tailored to meet individual needs.

8.1 Digital Technologies

eLearning provides a range of technologies including:

1. Generic software applications, word processors, spread sheets, and statistical tools which can be used to develop ideas and skills and to present and publish results and findings;
2. Subject specific software;
3. Presentation technologies - including interactive whiteboards, projectors, digital cameras, recording mics and presentation software;
4. The Internet - which provides access to a range of digital resources including on line libraries, databases and “Cloud computing”;
5. Conferencing - which includes e-mail, Blogs and Wikis, discussion boards, bulletin boards and chat tools that can support a range of collaborative activities;
6. Multimedia to support a variety of learning styles and includes the use of images, sound, video and animation;
7. Computer assisted assessment - automatic on-line testing which will be available on the National VLE. Some teachers are already using such software that is available on the Web;
8. Computer assisted learning - using the computer to support learning e.g. online tutorials that might include video or animation and feedback within a structured framework;
9. Video conferencing, involving the use of audio and visual communication can be used to share ideas collaboratively;
10. Streaming - digital audio and video delivered via the web can give students access to real situations that might otherwise be inaccessible;
11. Simulations and Models that enable students to explore real world models and develop practical skills in a safe environment;
12. Games including robotics, game consoles and 3D worlds where the student learns through experimentation and interacts with others in a simulated environment;
13. Visualisation tools including mind mapping and concept mapping tools that are used to represent complex information.

14. The list is not exhaustive and the creative teacher will be helped and supported in exploiting emerging technologies to enhance the teaching and learning.

### 8.2 Leaders’ role

Digital technology plays a critical role in allowing teachers to focus on student-centred approaches. Integrating digital technology into the curriculum is an essential way to retool our schools and turn them into learning spaces that will prepare our learners for tomorrow. Integrating technology into the curriculum is not the same as being competent in using the computer. Leaders should stop thinking about technology training and how it can be used in the classroom and start thinking about curriculum training that incorporates technology.
9. Appendices

Appendix 1:

**Flexibility in curriculum management progression from a Unit to Teaching**

The flexible hierarchical structure of the curriculum

At each level in the hierarchy of the schooling system the curriculum can be flexibly managed. This is more fully explained in the footnote.

- The central curriculum from the DCMeL
- The curriculum of opportunity the whole set of units for each subject at a college and school level
- Subjects scheme of work with the strands, their units and Level descriptors at HOD level
- Subject units all the units that make up the scheme of work for each subject at a classroom level
- Unit teaching objectives for the teacher’s delivery of the subject
- Lesson procedure guidance possible more detailed notes for a lesson
- Student learning outcomes macro for the class and micro for the student

Different forms of flexibility when managing the units at a classroom level

1. Flexibility in preparation for action
2. Flexibility in initial unit planning
3. Flexibility preparing for a lesson
4. Flexibility in modifying the teaching plan as you progress
5. Flexibility as a result of reviewing the teaching objectives and student attainment
1. Flexibility in preparation for action

Decide the order and how many units to teach within a year and in which teaching blocks.

Flexibility is in choosing the units in the order that suits you.

1.1 Flexibility in initial unit planning

- Read the unit as a whole to ensure that you have a picture of what it says.
- Ensure that you appreciate the approach to teaching and learning for that subject e.g. Science and enquiry.
- Reflect on the approach you will take to student centred learning.
- Decide on the teaching situations and learning activities that would suit your class of students. Review and if necessary, rewrite the range of possible learning outcomes so that they reflect the range of students’ attainment levels in your class.

1.2 Flexibility preparing for a lesson

Decide on Unit Teaching Objectives for the week
- Insert the teaching objectives for the whole unit
- Identify some key words to be stressed throughout the unit
- Indicate some of the key teaching materials that you will use

**Decide on appropriate vocabulary**

Flexibility in deciding the key words to be used

The plan shown below is to illuminate what is meant by flexibility. It is not intended that the teachers has to write a similar plan although the teacher may make some sort of preparation guidance notes especially if there is an LSA in the class

**Decide on work station groupings of students**

1. For group one the objective and activity come from unit; In this case the planning follows the guidance
2. For group two the objective is a different one and the activity is as per unit; **Flexibility** In this case is that the order of the objectives is different for different students in the same class as some may have progressed more quickly
3. For group three the objective is the same as group two but the activity is different; **Flexibility** in this case is in the change of teaching activity
4. For group four the objective is from a different inclusive objective and the activity comes from The unit; **Flexibility** in this case is in the change of level of objective

**1.3 Lesson notes**

- Make a note of the approximate amount of time that you would devote to teacher centred teaching and student centred learning. You may have two 10 minutes teacher directed sections followed by a 10 minute student reviewed section within each lesson.

- Write the teaching situations and try to make them exciting.

- Write the guidance for teaching those activities to maximise student centred learning.

- Ensure that each supporting LSA has the activity that they are to do demonstrated to them (not just explained).

- Make sure that everyone knows that the learning outcomes are possible indicators of student response and not teaching objectives.
2. Flexibility in modifying your guidance notes as you progress

2.1 During the lesson

- During the lesson activities glance at the adults to check that they are doing what you expect. If the adult is not doing what you want either show them there and then or talk to them after the lesson.

- Ensure that any behaviour guidance is clear and adhered to.

- At the end of the lesson review the subject content that has been covered and evaluate if you need to make changes for the coming week. You may keep the same content for the whole teaching block or you may insert new activities or content.

Flexibility as the plan of the lesson progresses then you can evaluate:

- The appropriateness and effectiveness of the teaching materials,

- The teaching interaction situations,

- The groups and the effectiveness of the adult support

- The quality of achievement from the student

- The actual responses the students give that indicate the level of learning outcomes

Constantly refer back to the subject unit:

- Ensure that the spirit of the unit as shown in the objectives and indicative learning outcomes are clear in your teaching plan

- Reflect on the effectiveness of the delivery of your teaching objectives in the spirit of the unit

- Check that your subject approach to teaching and learning meets the guidance in the Teachers’ Handbook

- Reflect on whether you have assessed the student at the correct level of attainment that he can achieve without adult intervention

The modifications to subsequent lessons may be needed if not all objectives are covered. By modifying the teaching plan as the teaching block progresses, adjustments to lessons can be made according to:

- the speed at which the teacher successfully completes the teaching objectives

- the teaching situations can be modified according to the spontaneous inspiration of the teacher
➢ the student learning outcomes can be individually adjusted, as the learning progresses for different students

2.2 Reviewing the teaching objectives and student attainment once the unit is completed

➢ Evaluate the effectiveness of the teaching objectives
➢ Evaluate the learning outcomes for each student
➢ Use the above information to inform the planning of the next unit

2.3 Flexibility with the Teaching Objectives

The teaching objectives are to inform the teacher’s delivery of the subject content.

➢ All of the teaching objectives contribute to the Teaching Objectives Framework for the subject.

➢ The teaching objectives reflect the syllabus of the Central Curriculum that are appropriate to the level of attainment of our students

➢ Teaching objectives should NOT be referred to as learning objectives. (Learning objectives do not exist within our diversity paradigm)

➢ Teaching objectives challenge the quality of the teacher’s knowledge of the subject they are teaching.

➢ For ease of access then for Form 1 there are a set of teaching objectives for students who are attaining at levels 5, 6, 7 and 8 and a later set in the same units for students who are attaining at levels, 1, 2, 3 and 4
2.4 Flexibility in evaluating learning outcomes

**Macro Learning Outcomes** are based on the level descriptors and they give us an indication of the range of student responses within an annual review context. They allow the teacher to appreciate the broad range of levels of student attainment in the class and to reflect on the general differences across a class of students.

**Micro Learning Outcomes** are based on the response of the students to their teaching experience within a lesson. When a lesson activity is first planned the micro learning outcome will be an estimate by the teacher.

- Once the lesson has been taught the teacher can write a realistic outcome statement.
- Each student will have his/her own expected learning outcomes.
- The ability to attain an outcome should be where the student is in control of the learning and NOT where the teacher is promoting an answer.
- During a Teaching Block a student should develop their learning outcome attainment.

3. Flexibility as a result of reviewing the teaching objectives and student attainment

In order to allow learning and teaching to inform each other it is important to review the activity in the classroom from both a teacher and a student perspective. The following criteria may help the teacher to reflect on the flexible criteria that may influence modifications of the teaching and learning process.

**Critical review criteria**

1. Are the teaching objectives from the Scheme of Work unit correctly copied?
2. How are the students put in groups at clearly defined work stations?
3. Does the range of activities fit the allocation of time for that lesson?
4. Is there an appropriate share of the amount of time between teacher centred teaching and student centred learning?
5. Do the teaching activities maximise student centred learning?
6. Are the teaching situations exciting?
7. Do the student learning outcomes differentiate the range of outcomes to be found within one level of attainment?
8. Is there an effective range of student learning outcomes expected for each teaching activity?

9. Do the supporting adults have clear written directions?

Note on curriculum management and flexibility

- At every hierarchical level of the schooling process the curriculum can be flexibly managed to ensure that the best quality of education is provided to the students. The different levels of management are DCMeL, College, SMT, HOD and Classroom.

- By curriculum management we are referring to the process whereby the coordination of the levels of attainment of each of the students are matched by the managed provision of the full range of educational resources, human, physical and financial.

- In a curriculum that is underpinned by the need to respond to diversity and student centred learning, then at each level there are two important features. In this case we are referring to curriculum management features for classroom teachers.

- The first feature is the need for teacher freedom to flexibly make decisions on how best to use the resources available. The second feature is the need to have responsibility so that the decisions that are made need to be evaluated.

- In this case the EO and HOD give the teacher a set of units which the teacher has flexibility to deliver. Conversely the teacher then is responsible to the HOS and EO for the evaluating the effectiveness of the planning as indicated by the progression in attainment of the students.

Flexibility and responsibility of managing the curriculum at the higher levels will be referred to in another paper. At every level it is the successful progression in attainment level of the students that drives the management of the full range of curriculum resources.
Appendix 2: Art and Design Assessment

Assessment should be linked to the three strands i.e.: Use of Materials Techniques Skills and Media; Expression of Feelings, Ideas, Thoughts and Solutions; Evaluation and Appreciation

These strands encompass the technical, creative and critical development of learners. Assessment should therefore be concerned with learners’ ability to:

- Select, control and use media, techniques and skills appropriate to the task
- Generate, investigate and communicate their own ideas and show that they can develop and sustain them in a variety of ways
- Describe significant features of their own and others’ work and make informed judgments and choices

Assessment approaches will include:

- Observation of on-going work and ways of working
- Observation of completed works
- Discussion of their work and responses with learners
- Assessment of learners’ responses to special assignments or tasks

In Art and Design the student should be assessed on:

- The preparation and selection of materials for a task
- The learner’s attitude and perseverance
- The learner’s ability to generate ideas
- The quality and characteristics of the realized product.

Assessment will therefore be tied to the teacher’s careful observation of students at work and in any way she or he decides to keep a record of such observations. The strand of Evaluation and Appreciation may be assessed through discussion with and among learners.

Since Art and Design produces tangible results, evidence for assessment should take the form of folders; sketchbooks; portfolios and collections of the various stages of the learner’s work and the finished product; working-diaries with drawings, photos and notes in Maltese and English showing the process and progress of a certain type of work; video recordings where applicable (e.g. installations, happenings, raku-firings, linking with other subjects etc.)

Students should also be involved in the process of assessment and know how and why they are being assessed by teachers. If used with care, self-assessment can also be valuable to foster independent learning and critical skills. This can take the form of discussion, set criteria or, in the case of younger or less confident learners, a list of questions to ask themselves. With older students self assessment and peer-assessment works best when the criteria against which they will make their critical evaluation is negotiated, discussed and understood beforehand.
**Art and Design Examinations**

Assessment is also carried out through formal examinations which take place on a half-yearly and yearly basis.

Although many practices are carried out during the art lesson, the two basic ones which are usually examined are painting and drawing. However, the art examination does not exclude other ways of executing the composition from a theme. These may include any of the practices stipulated in the rubric of the examination paper.

Form three, four and five students are given a paper with two sections: section A deals with imaginative work that is, composition from a theme while section B deals with work from Observation.

The papers in *Imaginative Picture Making or Composition from a Theme* are given three weeks in advance. The actual examination is carried out during lesson time to cover three hours of work for the imaginative paper and another three hours for the observation paper. The school management team has the option to conduct the art examination session for all students at one go if it can be arranged.

**Art and Design as a Visual Language**

Art is the visual language. It is a non-verbal universal means of communication transcending the barriers of time and space. It involves the senses of sight and touch. It deals with the process of perception where images and forms, conveying multi-layers of meaning, are created.

Unlike other subjects that predominantly explain the world in terms of literacy and numeracy, art is a non-discursive mode of knowing. Pupils use colour, form, texture pattern, line, tone, shape and space together with different materials and processes to communicate what they see, feel and think.

Art supports the individual. It values diversity and every personal response has value. It celebrates and fosters sensitivity towards cultural differences.

**Art and Design within the General Curriculum**

Art makes a unique contribution to the general curriculum. It is a subject where each response has validity as there are no right or wrong answers. The very nature of the subject involving the participation of the child either individually or as member of a team fosters social integration and facilitates the adaptation of children experiencing difficulties in the school environment.

In Art some of the time given will be employed to Learning in the subject, developing various concepts, skills and processes. The work carried out in Art can motivate support and develop learning in other subjects especially Drama, Music and Physical Education, and contribute to the creation of a context for learning and teaching which is meaningful to the learner.

Another portion of time will be devoted to learning about art where the learner is involved in appraising and evaluating the work of artists, designers and the pupil's own work. The learner acquires knowledge of the different periods, cultures and traditions in art and the work of influential artists.
Art develops the learners’ creativity and self expression. Skills and concepts acquired in other areas of the curriculum are reinforced. Learning through art offers the means for practical and imaginative involvement and application. It brings learning to life and gives a depth of understanding and relevance to the learner.

**Study Styles**

Students should be taught Knowledge, Skills and Attitudes through:

- Exploring a range of starting points for practical work including themselves, their experiences and natural and man made objects and environments.
- Working on their own and collaborating with others, on projects in two and three dimensions and on different scales.
- Using a range of materials and practices including ICT (e.g. painting, collage, print making, digital media, textiles and sculpture)
- Investigating art, craft and design in the locality, in a variety of genres and from a range of historical, social and cultural contexts (for example in original and reproduction form, during visits to museums galleries and sites, on the internet.)

**The Creative Process**

Working approaches should follow the process of **Investigation, Documentation, Experimentation, Realisation and Aesthetic Awareness**. This process in turn could be applied to all three strands of the syllabus.

**Investigation** deals with exploration, researching and communication of ideas, feelings, thoughts and solutions about the theme or problem being tackled.

**Documentation** deals with record keeping. The learner records from experience, observation and imagination by drawing, photography, keeping notes, files, collections or working diaries related to the work in progress.

**Experimentation** deals with discovering ways to put ideas and solutions into practice by using materials, tools, and techniques in creative and innovative ways.

**Realisation** The above steps lead to the creation of a final work which could be an image, a form or a product etc.

**Aesthetic Awareness** is making connections to works of art, craft and design related to the work being carried out, using the visual elements and practicing the right skills and techniques.

**Spontaneous and Intuitive Work**

Time should also be allotted for the creation of spontaneous and intuitive work where the learner is allowed to create from personal experience and from the joy of handling materials and media.
The Visual Elements

Line

A single mark on a page will produce a point or a dot. A slight movement will make a dash. A longer movement creates a line which is a basic component of drawing.

The use of line should be explored regularly and for a range of purposes with drawing materials such as pencil, felt pen, crayon, pen and brush, each of which possesses individual line-making characteristics. Pupils can experiment with different kinds of line, broken, thin, thick, fluid and jagged lines, which can be used to express different ideas, moods and atmospheres.

Shape

Pupils should develop an ability to analyse what they see in terms of basic shapes. This may be done by observing and recording which will enable the learner to think in visual terms both in representational image-making and in communicating design solutions. Basic shapes include for example, geometric squares, circles, oblongs, triangles; they can be two or three dimensional, whole or broken, negative (background or surround) or positive. The negative space around objects can be just as important as the positive shapes of everyday objects such as figures or buildings; there are basic shapes such as squares that occur in every scene we visualise.

Form

Students should experience the making of three-dimensional forms, by constructing and modelling in a range of materials for both expressive and functional purposes e.g. clay, papier-mâché, junk, cardboard, paper and wire. Forms should be explored in different ways e.g. transparent, solid, rigid and flexible.

Shape and form are often used interchangeably. However, in art shape is more correctly used to refer to the two-dimensional outline while form refers to the three-dimensional shape.

Colour

In progressive stages, students should become aware of the impact of colour in our daily lives. They should become independent in choosing colours for effect, e.g. primary and secondary, hot and cold. Confidence in colour mixing techniques should be developed with for example paints, chalk, and paper.

Tone

Tone is the degree of lightness or darkness of any colour. It is used to create various effects, for example light and shadow, depth, form, mood and atmosphere. Students should investigate the effects of tonal range of colour, for example from light to dark in painting or from white through to greys to black in pastel drawings; and also the tonal range produced by different media, for example by charcoal, chalks and crayons, paint, pen, brush and ink.
Pattern

Pattern refers to the repetition of lines, shapes, and colours to be found in the natural and made world. In nature patterns is the result of growth structures, natural forces or the needs of living things to attract or disguise. In the made world they may be accidental, functional or decorative, or a combination. Students should be made aware of the impact of pattern in both 2-dimensional and 3-dimensional work. Pattern created by line, colour and texture should be practiced in order to embellish existing images and forms. They should be aware of the way pattern influences us and how it is influenced by circumstances such as tools, materials, traditions. Pattern can be transferred to everyday materials such as fabric, clay and paper by printing, dyeing, stamping, cutting, stencilling and drawing. It can be simple and repetitive as in potato printing or complex and embellished as in wallpaper and fabric.

Texture

Texture refers to the surface quality of things, for example rough or smooth, soft or jagged. Things can be experienced through touch as well as sight. Students should be encouraged to create textures in clay works and collages through direct impression or casting, or by scratching and piercing paper, tearing and cutting material. Texture can also be suggested through illusion in drawing, painting, printing, wax rubbings and photography. Everyday objects such as clothes, buildings and natural forms should be pointed out and their textural surface explored.

Definitions

Perspective

Perspective is a technique used to represent three dimensional images on a two dimensional picture plane. It is the delineation of depth of view in a picture to create a sense of space. Perspective may be aerial or linear.

Linear perspective deals with the organisation of shapes in space. Lines carry the eye to a vanishing point and objects appear smaller and less defined as they become more distant.

Aerial perspective deals with the atmospheric effects on tones and colours. A sense of depth is created in a picture through using subdued colours to indicate distance.

Image

An image is any visual representation, for example a painting, drawing, photograph, collage, sculpture or model.

Media Media (singular: medium) refers to the equipment, materials and techniques used in Art and Design activities: anything which makes a mark on a surface and the surface or material itself. For example, pen and paper, brush and canvas, thread and fabric: clay, stone, metal, tools.
Appendix 3: Assessment for Learning – important general principles

Assessment for Learning (AfL) occurs when evidence is used to adapt the teaching to meet the needs of the students. Assessment for Learning enhances learning for all types of students because it is there to build a bridge between what is known and what lies on the next step.

1. Understanding what students know

Before starting to teach a new topic or concept, we need to become aware of what are the pupils’ perceptions on the subject.

Techniques that can be used:
Brainstorming, Questioning, Survey, Concept Mapping, Mind web, Discussion, Short test, Evaluate written work done at home or at school.

2. Effective Questioning Techniques

We should consider the use of open challenging questions which allow a range of correct responses and require students to think. Such questions bring students to terms with what they are understanding and the concepts they are forming on the topic being tackled.

More wait time is required. This wait time has to be of around five seconds. Students usually leave the answering of questions to the few most able students in class or else when we use a ‘hands up’ technique, only those that are sure of the answer put up their hand as the others would not want to risk. What about the rest of the students? How will we know that these students have grasped the concept or the skill? Therefore avoid the hands up technique and give everybody an opportunity to answer. Questions can be of the following type:

Types of questions

Literal Questions

Application Questions
Can you think of another situation similar to this?
Do you know of another story that deals with the same issues?
Do you know where else this can be used?

Analytical Questions
What makes you think that?
Can you support your view with evidence?
Are there familiar patterns you notice?
Why do you think this was written/given in such a way?
Why did you decide to do it in such a way?

Synthesis Questions
What is your opinion?
What evidence do you have to support your view?
Given what you know about... what do you think?
If you were.... what would you think?
Evaluation Questions
What makes this ... successful?
Does it work if done in another way?
Which is better and why?

3. Oral Feedback during the lesson

Feedback is fundamental. It gives the opportunity to students to improve in their learning. Feedback has to be from teacher to student, student to teacher and student to student. Good Oral Feedback should

1. focus on the student’s work not on the person
2. state specific ways on how the work can be improved
3. compare the work the student produced with what was previously done
4. do it all along the activity
5. be critically constructive
6. use comments that push the learning forward
7. use a language that does not intimidate the students
8. consider all the students’ comments
9. focus on the learning intentions explained at the beginning

4. Oral and Written Feedback after the lesson

‘It is the nature, rather than the amount, that is critical when giving pupils feedback on both oral and written feedback’. (Black 2004)

Written feedback can be in the form of grades or comments or both. A numerical mark does not tell the students what needs to be improved in their work and therefore an opportunity to enhance their learning is lost. When a comment is written next to the grade, students tend to ignore the comment and all the corrections the teacher does. The mark becomes a measure of their ability.

Give students the correct advice that would lead them to correct their mistakes. This advice has to be concordant with the learning intention. The advice should be a very short piece of information about where the students achieved success and where they could improve against the learning intention.

The work should go back to the student who must be given time to carry out the requested changes. The work will then go back to the teacher who will correct it and give another advice on what can be done next to enhance learning.

Comments need to begin with what has been a success by showing what needs to be improved and by giving advice on how this improvement can be achieved

The feedback given has to cause thinking and students have to be given time to act accordingly.

- Focus on specifics: Ask a question on a specific thing that went wrong.
- Delve: Ask questions that prompt students to tell more about a specific.
The feedback given should stimulate the student to improve. It should be challenging enough to motivate the students to learn. Visible improvements will increase the students’ self-esteem.

5. Promoting Self-Assessment and Peer-Assessment

Self-Assessment

Many studies show significant progress made by children who have been trained to be self-evaluative. At the end of every lesson students are asked to produce reflective comments about their learning, followed by a teacher’s summary, unravelling misconceptions that might have been created and providing links with future learning.

Self-evaluation has to be linked with the learning intentions and this will lead to student progress, more persistence and a higher self-esteem from the students’ part.

Training students to be self-evaluative

1. Explain why a self-evaluation is needed. Significant progress is made by students who are self-evaluative. When they compare their learning against the learning intentions, they understand where they stand in their learning. Then they can ask the necessary questions to move forward.

2. Recap the learning intention a number of times during the lesson.

3. Be prepared with a number of questions for the end of the lesson.

   - What did you find most difficult to learn?
   - Is there something which you are still unsure about?
   - Is there anything you need to know more about?

4. Give students some thinking time (15-30 seconds) to answer the above questions.

5. Use different approaches to get the answers for the above questions such as whole class responses, paired-responses, group responses.

Peer-Assessment

When students are given the opportunity to verbalise what they have learnt, their brain will start processing the data by giving it a structure, forming bridges between what is new and those concepts/perceptions that they had before. This will make students aware of what has been learnt and what needs further clarification. Therefore it is of extreme importance that teachers give space and time for students to speak about the topic in question.

Peer-assessment is the ability to assess the work of others, whether it is written, spoken, painted or any other practical piece of work. Students will be able to perform peer-assessment only if the teacher has given them clearly stated success criteria against which they can perform assessment. Skills which form
the basis of peer-assessment: Students have to learn to observe to form an opinion and to know why they have formed that opinion

Bibliography


Digital Technology to enhance learning is a requirement of the National Curriculum. It is the entitlement of all students. The entitlement documents that follow are not intended to be exhaustive, but indicate where Digital Technology might usefully support students in acquiring knowledge, being creative, collaborative and in communicating appropriately and effectively.

In many secondary schools access to Digital Technology at this point in time poses a number of challenges, so careful planning is necessary to use even a small amount with all students. The situation in Primary schools is less challenging as each class has at least three PC and the teacher’s laptop. As any reform is a journey rather than a one-off event, it is envisaged that the entitlement documents will be updated periodically to accommodate new emerging technologies. It is not intended that all of the suggested links and possible activities be used and those described may be used in different ways. Some activities and ideas lend themselves to using the teacher’s laptop and the interactive whiteboard at its most basic function. Other activities and ideas work best with a networked system and portable computers, and which make best use of the virtual learning environment. Students may be able to use ICT at home and this should be encouraged where it is appropriate.

The suggested ideas (at the end of each unit) exploit the software that already exists in school or is available freely in the public domain or cloud. Many of the activities are straightforward and easy to put in operation. Others may require support from e-Learning Champions in the school. In any case the best idea is for class teachers to consult the school’s e-Learning Champion about what they want to do and how it might fit in the curriculum. It is not the intention of the e-learning entitlement documents to deliver students’ ICT capabilities although some activities will consolidate what the students learn during discrete ICT and Computing lessons.

The PC and other digital technology

Primary and secondary school students need to be taught 21st century skills if they are to thrive in the technology-infused job sectors they will enter in the future. We need to fuse the traditional 3 Rs with critical thinking and problem solving, creativity and innovation, communication, and collaboration. It is no longer enough to instruct students in spoken and written communication. They need to be taught to communicate electronically including netiquette, email and Web interactions. Collaboration today happens also virtually, where materials and documents are shared without regard to physical space. More collaboration will be occurring in 3D, immersive environments so students need to be adept at navigating virtual worlds. It follows that students should be given opportunities to apply and develop their ICT capability through the use of digital technology and Web 2.0 tools to support their learning in all subjects.

Students should be given opportunities to support their work by being taught to:

- find things out from a variety of sources, selecting and synthesising the information to meet their needs and developing an ability to question its accuracy, bias and plausibility;
• develop their ideas using ICT tools to amend and refine their work and enhance its quality and accuracy;
• exchange and share information, both directly and through electronic media especially Web 2.0 tools; and,
• review, modify and evaluate their work, reflecting critically on its quality, as it progresses.

**Bloom’s Digital Taxonomy**

Bloom’s Taxonomy in its various forms represents the process of learning. The six levels by Bloom have been simplified in some cases, like the three storey intellect inspired by Oliver Wendell Holmes and adapted to education by Art Costa, but basically Bloom’s Taxonomy still represents how people learn. Bloom’s revised digital map is an update of the original 1950 and 2000 map and accounts for the new behaviours, actions and learning opportunities that emerge with new technologies. The digital taxonomy addresses the following skills:

<table>
<thead>
<tr>
<th>Key Term</th>
<th>Thinking skills</th>
<th>Digital skills</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Remembering</strong></td>
<td>Recognise, listen, describe, identify, retrieve, name, locate, find</td>
<td>Bullet pointing, highlighting, bookmarking, social networking, social bookmarking, searching, Googling, local bookmarking.</td>
</tr>
<tr>
<td><strong>Understanding</strong></td>
<td>Interpret, summarise, infer, paraphrase, classify, compare, explain, exemplify</td>
<td>Advanced searching, Boolean searching, blogging, twittering (micro-blogging), categorising, tagging, commenting, annotating, subscribing.</td>
</tr>
<tr>
<td><strong>Applying</strong></td>
<td>Implement, carry out, use, execute</td>
<td>Run, load, play, operate, hack (reconfigure or re program a system), upload, share, edit</td>
</tr>
<tr>
<td><strong>Analysing</strong></td>
<td>Compare, organise, deconstruct, attribute, outline, find, structure, integrate</td>
<td>Mashing-up (as in layering of images on maps), link, validate, reverse engineer, crack, media clip</td>
</tr>
<tr>
<td><strong>Evaluating</strong></td>
<td>Check, hypothesise, critique, experiment, judge, test, detect, monitor</td>
<td>Comment in blogs, post, moderate, collaborate, network, refactor (as in improving code readability, i.e. undertaking tiny changes in program code to improve software), testing new code</td>
</tr>
<tr>
<td><strong>Creating</strong></td>
<td>Design, construct, plan, produce, invent, devise, make</td>
<td>Program, film, animate, blog, video blog, mixing and remixing, wiki-ing, publishing, video casting, podcasting, directing</td>
</tr>
</tbody>
</table>
Appendix 5: Matching software to Attainment Levels 1 to 3

Level 1:

A1i Using **Big Bang, Switch It Patterns** to attract attention, student may be passive or resistant.

A1ii Using **Switch It Series**, student shows alertness and simple reflex responses.

A2i Switching on a fan or tape recorder using a switch, watch and track images on a screen using **Big Bang, Big Bang Patterns**.

A2ii Turn towards familiar music and stories and respond to familiar events in a story. Repeatedly press a switch, a **Big Step by Step Communicator** to complete a sequence. Work with an adult to complete a **Switch It Pictures** sequence.

A3i Communicate intentionally to ask for computer, press the **Go** button on a **BeeBot** to repeat a movement. Show pleasure at the responses e.g. **Switch It Series** build up.

A3ii Initiate a program - e.g. **Touch Games, Switch it Maker 2** to start the sequence. Anticipate the next step in a program e.g. **Choose and tell Legends**. Use two switches to make a choice e.g. **Switch Skills for Two, Choose and Tell Series**. Use **Choose it Maker 2** to make a simple decision. Show awareness of problem-solving e.g. pressing a switch repeatedly when the computer has been switched off.

Level 2

A4 Students recognise their own image (digital photographs in **Switch It! Face Maker**), start a story on a DVD.

A5 Matching activities in **Skill Builders Matching Skills, Sorting Skills**, recognising numbers and alphabet letters in **Choose It Maker 2, Clicker 5**. Use a communication grid to make needs and wants known 

**Boardmaker Plus, The Grid 2**.

A6 Use the computer or portable communication device to send a message, write their own name in **Clicker 5, Symwriter**. Save and retrieve work they have done in **Clicker 5**. Follow a set of instructions to control the **Constructa-bot, Pro-Bot**. Switch on the computer and load a familiar program independently

Level 3

A7 Choose which images to include in **Switch It Maker 2**. Give directions and instructions and use symbols to write messages in **Clicker 5, Symwriter, Communicate in Print 2**

A8 Record own voice on **Easi-Speak** or computer program e.g. **Switch-it Maker 2**, put together their own slide sequence using **Switch-it Maker 2**, select and insert a clip art into a word processor, Select a range of tools from a toolbar in **Clicker 5**, make animation in **Textease**.
Appendix 6: Online resources for attainment levels 1 to 3

The following list details sources of free software and guides that can be used to support students with individual educational needs and the use of Assistive Technology.

**ACE Centre Advisory Trust** [http://www.acecentre.org.uk](http://www.acecentre.org.uk)
ACE Centre access software, a free version of Switch Access to Windows plus Windows shareware.

**Call Centre** [http://www.callcentrescothland.org/resources](http://www.callcentrescothland.org/resources)
Downloadable communication boards and resources, BoardMaker V6, Clicker 5 and PowerPoint resources.

**Children’s BBC (CBBC)** [http://www.bbc.co.uk/cbbc/](http://www.bbc.co.uk/cbbc/)
BBC web site for children with switch accessible online games.

**Communication for All** [http://www.communication4all.co.uk/](http://www.communication4all.co.uk/)
An interesting website which supports inclusion

freely downloadable Clicker 5 grids, a software package used to support students across all curricular areas.

**Do to Learn** [http://www.dotolearn.com](http://www.dotolearn.com)
Games, songs and fun activities.

**Enchanted Learning** [http://www.enchantedlearning.com/Home.html](http://www.enchantedlearning.com/Home.html)
Online curriculum material including Languages, Physical Sciences, Geography, Sciences, Maths, Music.

**Help kidz learn** [http://www.helpkidzlearn.com](http://www.helpkidzlearn.com)
a number of activities which can be used with a switch, tracker-ball or other hardware.

**Hiyah** [http://www.hiyah.net/software.html](http://www.hiyah.net/software.html)
downloadable games including pre-literacy and early maths skills.

**Inclusive Technology** [http://oneswitch.org.uk/](http://oneswitch.org.uk/)
Ideas, games and resources for art, music and playing video and computer games using switches.

**Intellitools Inc** [http://www.intellitools.com/](http://www.intellitools.com/)
Activity exchange area including the Intelliteekeys concept keyboard and Classroom Suite.

Can create a puzzle with a minimum of 6 to a maximum of 200 puzzle pieces.

**Mayer-Johnson resources** [www.mayer-johnson.com](http://www.mayer-johnson.com)
Software downloads and a 30 day trial version of Boardmaker symbols.

**Meldreth Manor** [http://atschool.eduweb.co.uk/meldreth/textandinfo/comp.html](http://atschool.eduweb.co.uk/meldreth/textandinfo/comp.html)
Meldreth Manor School has downloadable PowerPoint and Illuminatus switch activities.

**Northern Grid for Learning** [http://www.northerngrid.org/sen/dbsenmain.htm](http://www.northerngrid.org/sen/dbsenmain.htm)
Appendix 7:

Attainment Level One explanation.

This appendix is for teachers of those students who are attaining at Level One. In psycho-medical terms the students at this level have profound and multiple learning difficulties. A number of these students will be attending mainstream schools whilst some students at this level attend St Miguel and Helen Keller schools.

A theoretical underpinning to early thinking skills
An overview of Piaget’s stages of cognitive development

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<thead>
<tr>
<th>First Stage Sensorimotor</th>
<th>Birth to 18 months</th>
<th>Infant interacts with the world through actions such as crying, regulated gestures, and exploring.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Second Stage Pre-Operational</td>
<td>2 yrs to 7 yrs</td>
<td>Pre-schoolers relate to their world through symbolic reasoning, magical thought, and continued sensorimotor activity.</td>
</tr>
<tr>
<td>Third Stage Concrete-Operational</td>
<td>7 yrs to Adolescence</td>
<td>Children begin demonstrating logical thought by using concrete examples from the world around.</td>
</tr>
<tr>
<td>Fourth Stage Formal Operational</td>
<td>Adolescence into Adulthood</td>
<td>Adolescents go beyond concrete examples and begin engaging in abstract thinking.</td>
</tr>
</tbody>
</table>

The sensori motor development

In order to understand how to develop thinking in pupils who are functioning at attainment level one, we adopted an approach based loosely around sensori motor perspective on cognitive development from 0-2 years of age Piaget (1955). This approach is illuminated in the following text whereby the six strands formed the focus of learning, and the three levels of circular reaction formed the developmental levels of progression in learning that became the basis of the P scales 1-3.

Piaget’s sensori motor development and the attainment level scales,
A) Strands of development adapted from Uzgiris and Hunt (1975)
1) **The Development of visual pursuit and the Permanence of Objects**

Fixating on and tracking objects, recognising the continued existence of partially hidden and hidden objects, retrieving partially hidden and hidden objects.

2) **Means of Obtaining Desired Environmental Events**

Increasingly complex ways of asking for things to happen. Getting repetition, various ways of getting objects, strategic planning for achieving ends.

3) **The Development of a) vocal and b) Gestural Imitation**

a) differentiated coos and distress sounds, imitation of sounds already in repertoire, imitates some new sounds, will imitate most sounds
b) imitates familiar own body actions, imitates visible gestures, imitates invisible gestures, imitates new models of gestures

4) **The Development of Operational Causality**

Increasing levels of understanding about what makes things happen. (Some overlap with scale 2). Profound egocentricity, self at the centre of all events, self and others making things happen.

5) **Construction of Object Relations in Space**

Increasingly complex understandings of spatial relations. Tracking, grasping, appreciation of spatial effects e.g. gravity and position of objects.

6) **The Development of Objects in Relation to Schemes**

Reflexes, simple undifferentiated schemes, differentiated schemes, dropping and throwing objects, socially instigated schemes.

B) Piaget’s Stages (levels) of Development,

From Hogg and Sebba, 1986

There are three main levels which are divided into six stages, two levels at each stage

**Primary circular reactions**, based on reflexive responses leading to schemes that are repeated and generalised;
Secondary circular reactions, leading to the co-ordination of secondary schemes, where learned habits emerge into intelligent behaviour;

Tertiary circular reactions, leading to the invention of new means through mental combinations with trial and error and dependence upon feedback as a basis for new learning.

C) The adaptation of the above approach to thinking means that we have six strands of learning i.e.

1) The Development of visual pursuit and the Permanence of Objects
2) Means of Obtaining Desired Environmental Events
3) The Development of a) vocal and b) Gestural Imitation
4) The Development of Operational Causality
5) Construction of Object Relations in Space
6) The Development of Objects in Relation to Schemes

Within each of these strands at Level One, there are a further three sub levels each of which is divided into two further levels. This makes a total of six sub levels in total

Sub-attainment level 1i

1, 2, 4. Student encounters activities and experiences. Student follows a slow moving object. Student watches their hand when it moves.

3a. Student makes sounds when not distressed.

3b. Student shows interest in adults.

5. Student turns head in direction of familiar adult on hearing or seeing them.

6. Student touches an object.

Sub-attainment level 1ii

1. Pupils show emerging awareness of activities and experiences. Student notices the disappearance of slowly moving objects.

2. They may have periods when they appear alert and ready to focus their attention on certain people, events, objects or parts of objects, student grasps an object visually directing his hand to the object.

3a student responds to infant like sounds.
3b student attempts to imitate action but does not succeed

4. student repeats arm actions to keep an object active consistently

5. student is able to localize the source of a sound visually

6 student may give intermittent reactions, student interacts with several objects at the same time by taking them to their mouth.

**Sub-attainment level 2i**

1. They begin to show interest in people, events and objects. Student pulls off a screen to obtain an object.

2. Pupil’s begin to respond consistently to familiar people, events and objects. Student repeats an action moving their hands systematically to produce an interesting event.

3a student vocalizes similar sounds to adults

3b student imitates a familiar gesture immediately

4. student accepts and engages in coactive exploration. Student produces a dominant act during a pause to suggest a procedure.

5. student reacts to new activities and experiences. Student follows a rapidly moving object and locates it visually only when it lands into views.

6. Student interacts with several objects at the same time by visual inspection

**Sub-attainment level 2ii**

1 student finds an object completely covered in three places and searches directly under the correct screen.

2. Student begins to be proactive in their interactions. Student moves the body to regain an object and continues to play with it.

3a student imitates familiar words

3b student models unfamiliar gestures immediately.

4. student cooperates with shared exploration and supported participation, for example, in a familiar game the student responds during pauses.

5. student performs actions, often by trial and improvement, and they remember learned responses over short periods of time, for example, student drops objects into a container and reverses it to get it out

6. student bangs two objects together
7. student communicate consistent preferences and affective responses, for example, showing a consistent dislike for certain flavours or textures.

**Sub-attainment level 3i**

1. student sustains concentration for short periods. Student finds an object under three super imposed screen.

2. student remembers learned responses over more extended periods. Student understands the relationship of a support and reaches for a object

3a student imitates unfamiliar sounds but not in a similar way.

3b student attempts to imitate unfamiliar actions they can see.

4. student participates in shared activities with less support. Student attempts to suggest a procedure to create a new event of interest to them

5. student observes the results of their own actions with interest. Student acts on a place with objects appreciating the force of gravity

6. student explores materials in increasingly complex ways, Student shows more varied actions adapted to specific objects such as swinging objects

7. Pupils begin to communicate intentionally; They seek attention; they request events or activities

**Sub-attainment level 3ii**

1. student searches to find an object under the correct one of three screens.

2. They apply potential solutions systematically to problems, for example, tipping a container in order to pour out its contents.

3a.b. Pupils use emerging conventional communication. They vocalize sounds similar to models immediately and imitate at least one invisible gesture immediately

4. They attempt to activate an object by giving it back to the adult. They can remember learned responses over increasing periods of time e.g. uses a stick to get an object without demonstration.

5. Pupils may anticipate known events, for example, drops several objects repeatedly to see where they land.

6. They actively explore objects and events for more extended periods, for example, feeling the textures of different parts of a plant.

When another person is present, a student will show objects to encourage social interaction.
7. They may respond to options and choices with actions or gestures, for example, touching one substance rather than another.

These levels form the bases of the learning outcomes that are being developed attainment Level One within the Maltese curriculum. At this level of teaching the access is on the six strands of learning and the national curriculum forms the learning context and environment within which the students can learn. So for example the students may not be learning Science but in terms of cause and effect when ice-cream melts on their body then in scientific terms materials are changing their properties from solids to liquids.

The application of this approach is particularly relevant in the teaching of mathematics at attainment Level One.