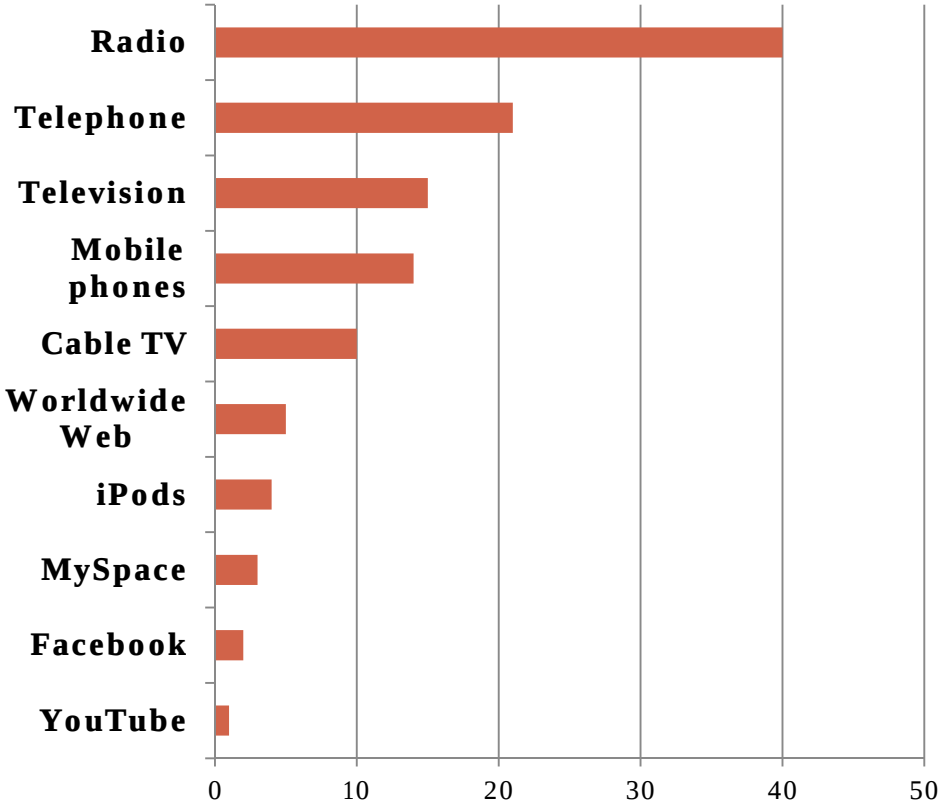
What's your school like?

Since @ 2003...

INTERACTIVE WHITEBOARDS
SMART PHONES
WEB.2: BLOGGING, TWITTER, YOUTUBE, WIKIS
SOCIAL NETWORKING
TABLET COMPUTERS
CLOUD COMPUTING
ONLINE CPD

The Pace of Technological Change

Years to reach 50 Million users



- The main aim of education should be to send children out into the world with a reasonably sized anthology in their heads so that, while seated on the lavatory, waiting in doctor's surgeries, on stationary trains or watching interviews with politicians, they have something interesting to think about. (*John Mortimer*)

...alternatively...

- "If we hire a youngster who doesn't know all the mathematics or physics that is needed to work here (*i.e. in Nokia*), we have colleagues here who can easily teach those things. But if we get somebody who doesn't know how to work with other people, how to think differently or how to create original ideas and somebody who is afraid of making a mistake, there is nothing we can do here. Do what you have to do to keep our education system up-to-date but don't take away creativity and open-mindedness that we now have in our schools." (*Sahlberg, 2011*)

What kind of learners are we trying to nurture for what kind of world?

19th century clerk?	21st century creative explorer?
❑ Being right	✓ Being adventurous
❑ Copying down	✓ Creating ideas
❑ Listening to teacher	✓ Discussing with peers
❑ Accepting what you're told	✓ Questioning things
❑ Working alone	✓ Working with others
❑ Sitting still	✓ Being active
❑ Remembering facts	✓ Imagining possible solutions
❑ Showing respect	✓ Showing initiative
❑ Following instructions	✓ Taking responsibility
❑ Being evaluated	✓ Self-evaluating

Source – Guy Claxton, Expansive Education at IoE, May 2012

SCHOOL 2.0

For the first time in history, we're preparing kids for a future that we cannot clearly describe.

Generation after generation, parents raised their children to use the tools with which they were familiar. Later on, some of the more ingenious children tweaked their ancestors' tools and invented new ones. But never before the advent of electronic computers and, more recently, of Internet-based services, did such a large fraction of humanity change their everyday habits and tools in such a short time. Within a couple of decades, the tools used in most trades and for such basic acts as communicating, gathering information, keeping records of the past or drawing plans about the future were replaced by digital ones. For the first time, today's parents and teachers have little, if any, experience with the tools that children are going to use every day in their adult lives.

OECD, September 2015, Students, Computers and Learning: making the connection

Giving our students the opportunity to develop 21st century skills is a priority. Technology is embedded in all aspects of our lives, and is bringing our society new advantages and solutions every day. I want to encourage all teachers to use technology in the classroom to bring learning to life for students; to give learners the tools to collaborate and to examine engaging problems; to research and analyse information; and to use digital resources to communicate their ideas and to share what they create with others beyond the walls of their classroom or school.

Minister for Education and Skills, Jan O'Sullivan, October 2015

We have committed ourselves to embedding 21st century skills strongly in the teaching and learning of subjects. We want to provide and reward learning experiences that promote not only critical thinking, but also collaboration, creativity, innovation and inventiveness – attributes that will be absolutely necessary if we are to equip young people to tackle the challenges of changing economies and the moral, societal and environmental challenges that arise in a globalised world.

Dr. Harold Hislop, Chief Inspector, September 2015

Modern societies are increasingly based on information and knowledge. So they need to:

- build workforces which have ICT skills to handle information and are reflective, creative and adept at problem-solving in order to generate knowledge
- enable citizens to be knowledgeable and resourceful so they are able to manage their own lives effectively, and are able to lead full and satisfying lives
- encourage all citizens to participate fully in society and influence the decisions which affect their lives
- foster cross-cultural understanding and the peaceful resolution of conflict.

OECD, September 2015, Students, Computers and Learning: making the connection

UNESCO's ICT Competency Framework for Teachers emphasizes that it is not enough for teachers to have ICT competencies and be able to teach them to their students. Teachers need to be able to help the students become collaborative, problem-solving, creative learners through using ICT so they will be effective citizens and members of the workforce.

"Technology is the only way to dramatically expand access to knowledge. To deliver on the promises technology holds, countries need to invest more effectively and ensure that teachers are at the forefront of designing and implementing this change."

Andreas Schleicher, OECD Director for Education and Skills

Executive Summary: In the end, technology can amplify great teaching, but great technology cannot replace poor teaching.

Rosen *(ReWired)*

...it is not only the range and sophistication of hardware that is changing – but so too is the way that today's "iGeneration" learns. Surrounded by technology from birth, traditional (i.e. teacher-centred, paper-based) approaches fail to engage or even interest modern children.

Consequently, schools that fail to create authentic digital contexts that reflect the lives of children will fail to connect with them, resulting in boredom, disaffection and decreased learning.


ANDERTOONS
Aa Bb Cc Dd Ee Ff Gg
"I appreciate the text, Kate, but next time you can just raise your hand."

TECHNOLOGY HAS PRESENTED OPPORTUNITIES TO CHANGE THE LOCATION OF EDUCATION FROM THE CLASSROOM TO . . . ANYWHERE. THIS GENERATION, WITH ITS PERVASIVE USE OF CELL PHONES AND OTHER PORTABLE COMMUNICATION TECHNOLOGIES, IS READY TO HAVE THEIR EDUCATION EXTENDED FROM THE CLASSROOM TO ANY ROOM.

(LARRY D ROSEN, *REWIRED*, P.58)

Marc Prensky (Digital Natives, Digital Immigrants)

When our leaders think that the job of educators is to re-create the old education better and more effectively for today's students, they deny our students the means to cope and thrive in the 21st century. When they think success at education is moving our kids up in the international PISA [Program for International Assessment] rankings, they send the message that they want our students to compete in the past.

Prensky

Our students have changed radically. Today's students are no longer the people our educational system was designed to teach.

What is the primary function of schools...?

Are we teaching our children what to think...

or

how to think?

Gilbert (*Why do I need a teacher when I've got Google?)*

- The role of the twenty-first century teacher...is to help young people know where to find the knowledge, to know what to do with it, to know "good" knowledge from "bad" knowledge, to know how to use it, to apply it, to synthesise it, to be creative with it, to add to it even, to know which bits to use and when and how to use them and to know how to remember key parts to it...
- ...and to develop their communication skills, their creativity, their ability to work well as a team, their confidence and self-esteem, their sense of what is wrong and what is right, their ability to deal with adversity, their understanding of their role as a citizen of the world...

Jean Piaget

- Intelligence is what you use when you don’t know what to do.

Instead of asking...

- What Interactive Whiteboard should I buy?
- Which tablet is the best?
- Should we have a computer room?
- Which platform is the best?

Where do we go from here – and how do we get there?

- What are the needs of the pupils....in terms of methodologies and learning outcomes?
  (Do we subscribe to Mortimer's definition of intelligence, or Piaget's....? Is Prensky correct?)
- To what extent can ICTs enhance the attainment of these objectives?
- In what ways will pupils and teachers be using such technology?
- What are the most appropriate applications to this end?
- What hardware do we need?

All teachers should be clear on why ICTs are used throughout the school, and this shared vision is an essential element in maintaining continuity and progression and in attaining the most effective learning experiences for pupils. In Sacred Heart SNS, the fundamental reasons for using ICT are:

- Making the learning experience fun and engaging for the pupils: when children are engaged and involved, learning will result. The opposite is also true.
- To have less "teacher-talk" and more activities involving active, discovery-based and collaborative learning experiences.
- To encourage more positive learning through ICT to take place outside of school hours.
- To give every pupil equal opportunities to access the curriculum, to achieve at the appropriate level and to produce work of a similar quality to all pupils.
- To enhance pupils' abilities to collaborate, communicate and to solve authentic problems.

Note: it is not a specified objective that pupils will be formally taught "computer skills". However, it is expected that they will learn such skills (typing, formatting, searching, linking, editing, copying and pasting etc) informally from each other as well as from the teacher. Internet safety guidelines present an exception to this policy.

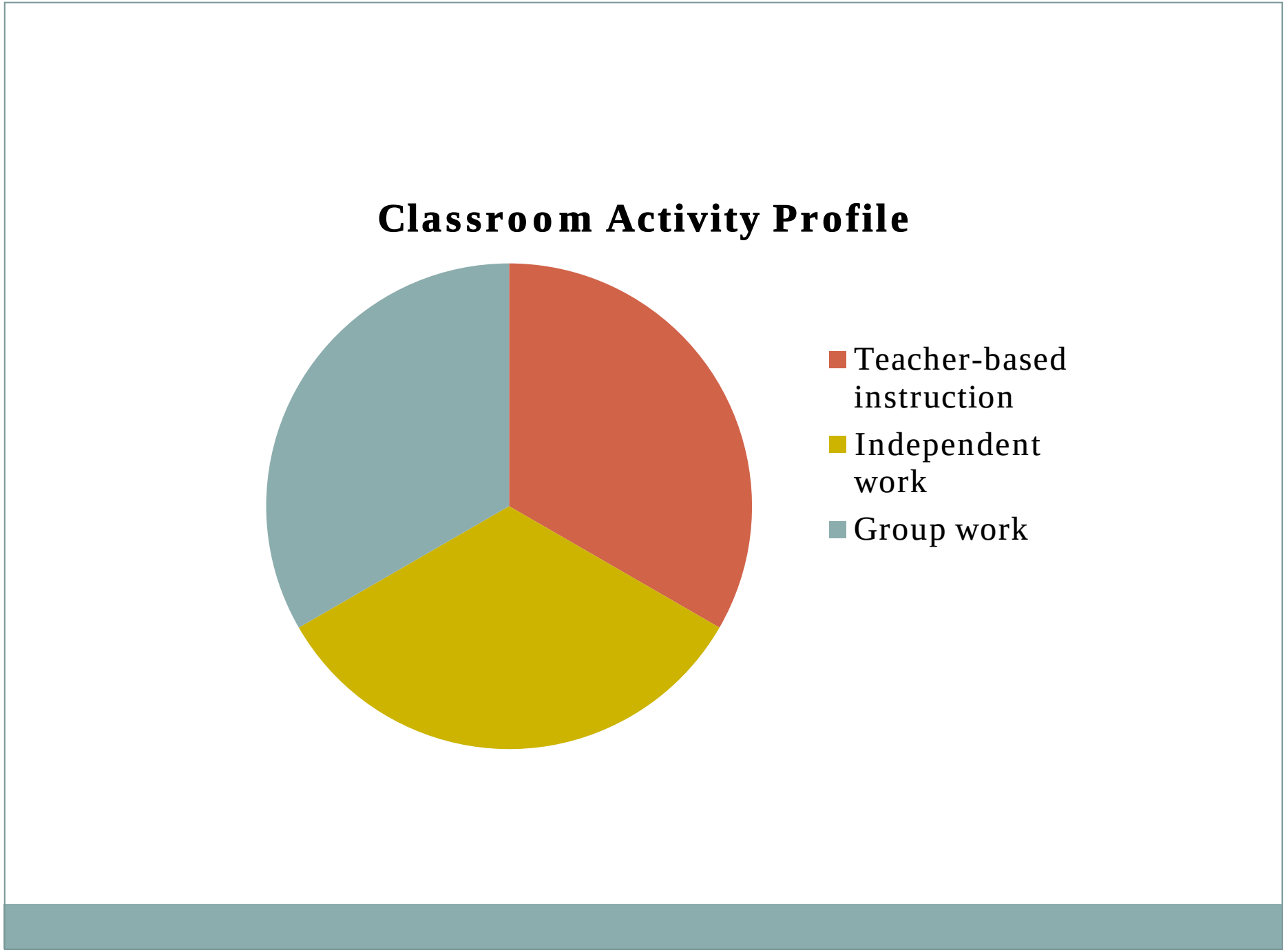
A possible framework that could be adopted by teachers in planning how they implement ICT activities is the Tutor-Tool-Tutee model.

The Computer as Tutor. Pupils normally work individually on activities designed to reinforce basic facts, concepts and skills. Examples include *ReadingEggs*, *Mathletics*, typing tutors or other activities and games to help memorise tables, vocabulary, spellings, geographical facts etc. In most programmes like this, the content is held by the device and the interaction is typically of a stimulus-response nature.

The Computer as Tool: Pupils use the computer to help them accomplish a task, usually in small groups. Examples include: drawing a picture, presenting a project, making a film or animation, researching information, writing a story. In these activities the pupils bring the content to the computer, which usually presents as a blank screen, and the device is used as a tool to present, construct, organise or communicate.

The Computer as Tutee: In this type of activity the pupils present the stimulus (in the form of instructions) and the computer responds. Examples include *Scratch*, *Code.org*, *LEGO WeDO* or *Mindstorms*, *LOGO*, *Beebots* etc. Pupils may work individually or in groups according to the instructional objectives.

Clearly, as one progresses upwards through this framework, pupils utilise higher-order thinking skills more. Commonly, Tutor-type are used more extensively with younger children and children with special needs and the other forms of ICT usage are increasingly introduced as they progress through the education system, and making the transition from “learning to read” to “reading to learn”.


Classroom Activity Profile
Teacher-based instruction
Independent work
Group work

Obstacles

- Absence of a clearly articulated vision
- Lack of funding / investment
- Impossible to plan
- Unreliable broadband
- Technical support
- Dismantling of middle-management structures

What works for us...

AN CHROÍ RÓ NAOFA

SACRED HEART
SENIOR NATIONAL SCHOOL

Mathletics *(subscription-based)*

ReadingEggs / ReadingEggspress *(subscription-based)*

Spelling City *(subscription-based)*

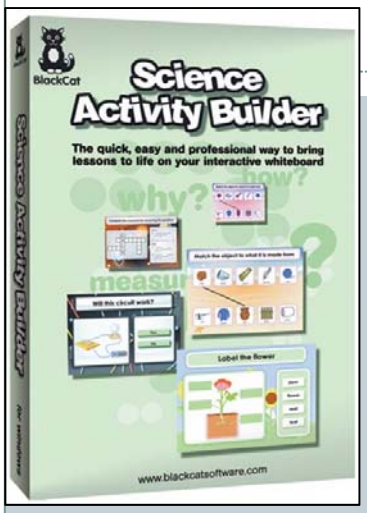
Dear Parents....

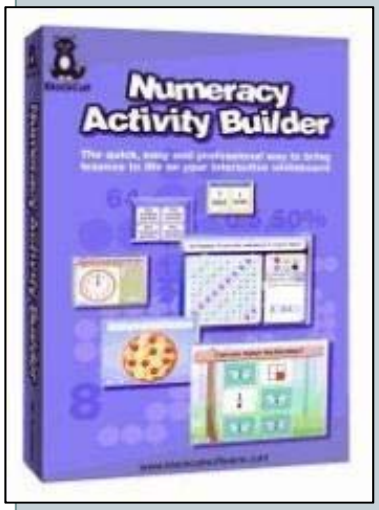
You can give your child a great advantage by encouraging them to use the Internet outside of school hours. We recommend the following applications, all of which are used in school:

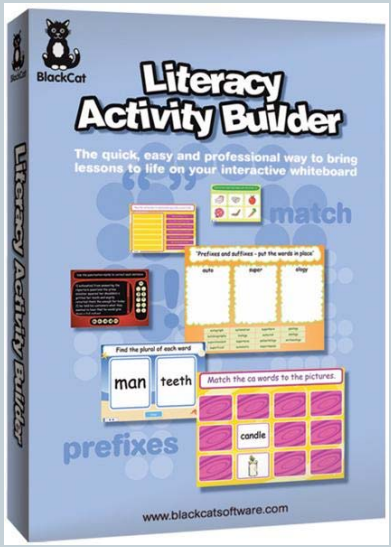
- **Spelling City**, 3rd to 6th. www.spellingcity.com. All pupils have a username and password, where they can log on using any device (including smart phones and tablets) and play games to practise their spellings.
- **Britannica Online**, 3rd to 6th. www.scoilnet.ie. This is a free children's encyclopaedia of very high quality which the children can use to look up information on projects they are doing or subjects they are interested in.
- **Reading Eggs**, 4th to 6th. www.readingeggs.co.uk. All pupils have a username and password, where they can log on and improve their reading skills in a fun way.
- **Mathletics**, 5th and 6th. www.mathletics.eu. This is a great way for children to have fun practising their maths skills. The pupils all have a cloud-based account with their own username and password.

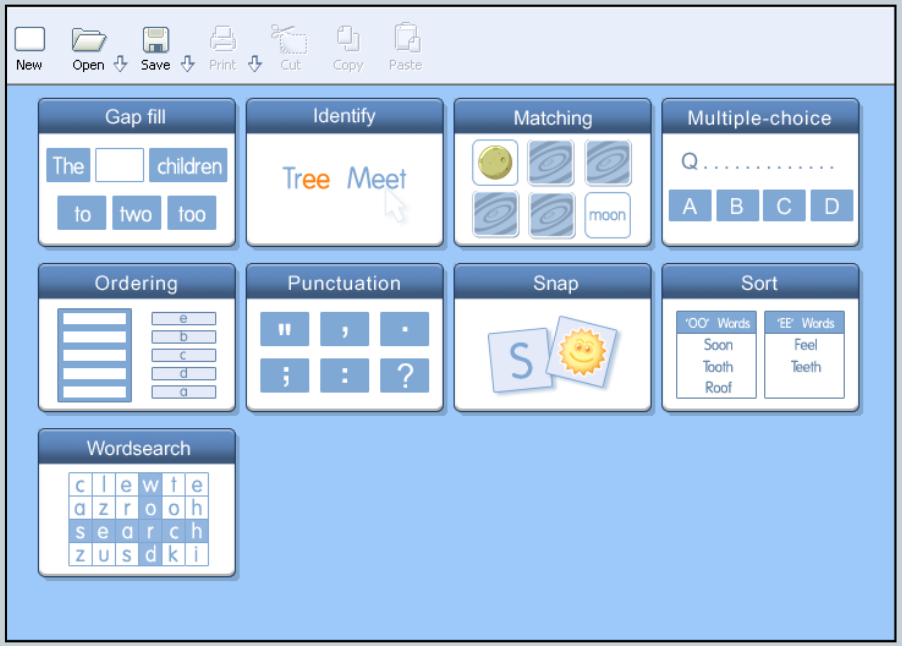
All of these programmes are designed for primary school children, they are of very high quality and the children will know them from using them at school. We strongly urge you to take full advantage of the opportunities presented by modern technology to support your children's education.

Activity Builder series (CD-ROM)





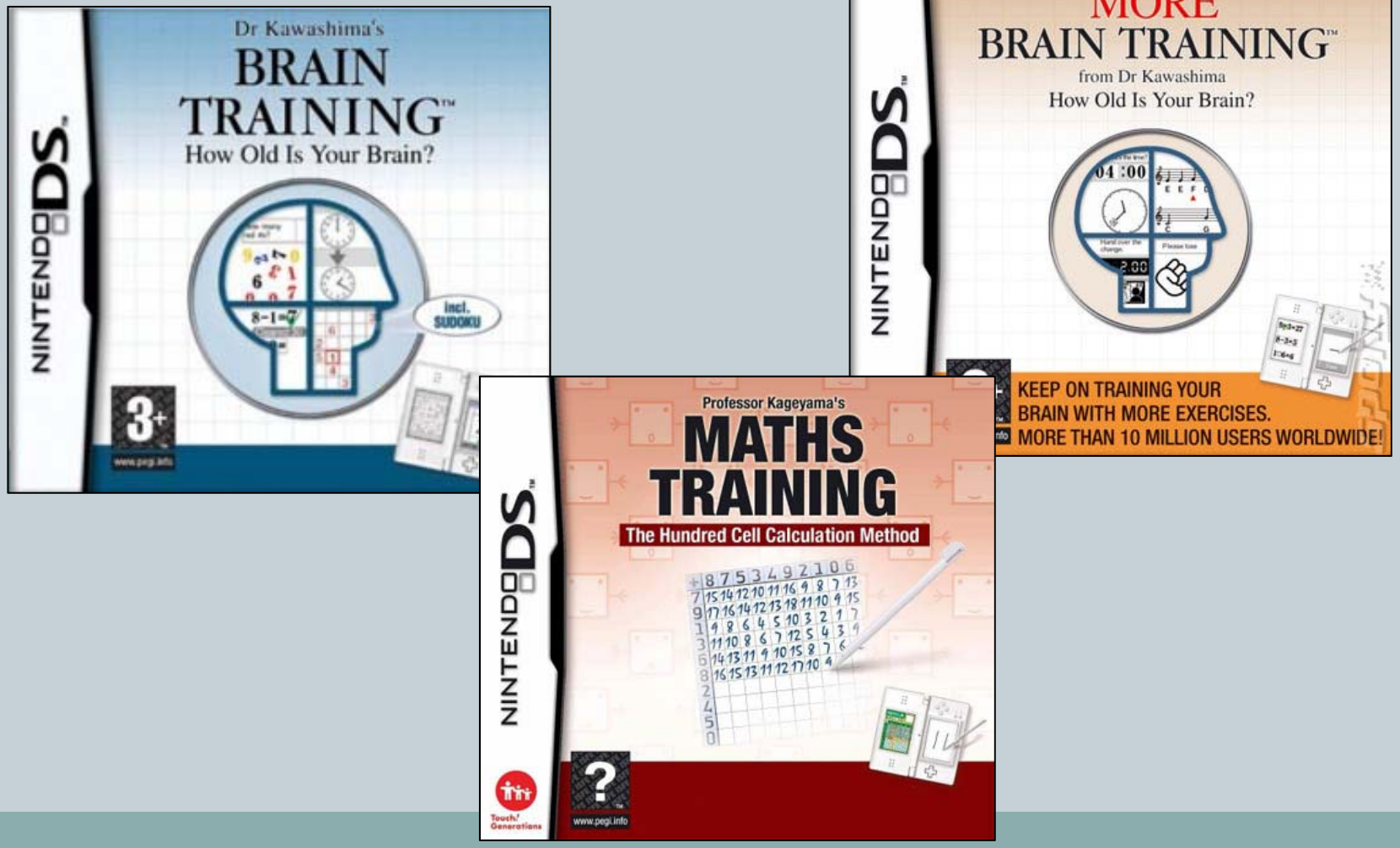




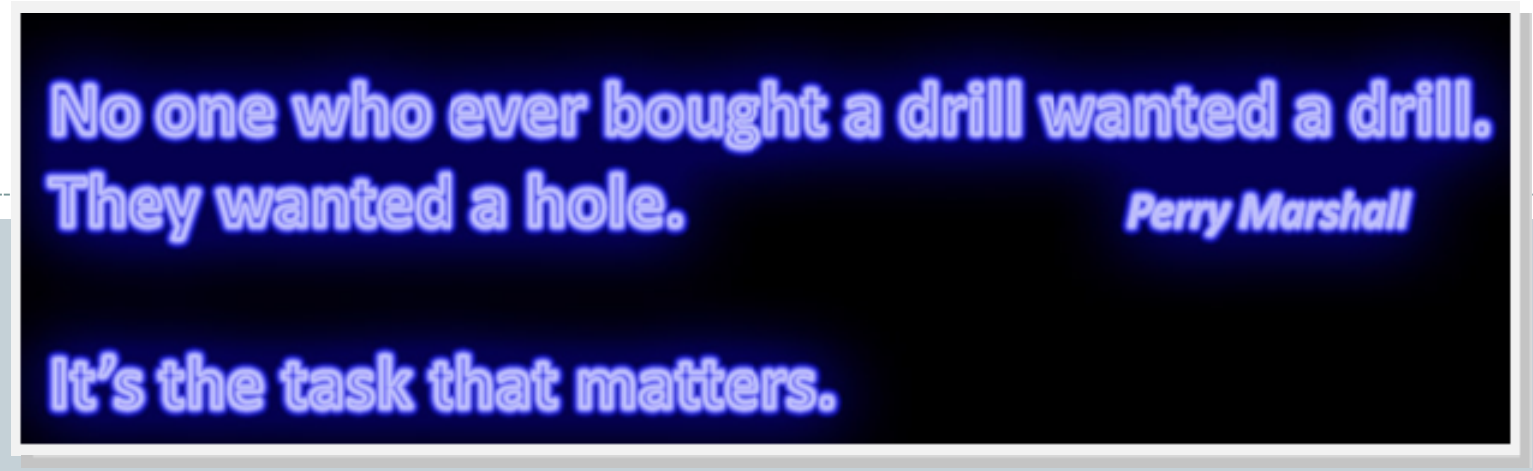
Licence	Price
Site Licence - Less than 100 pupils on roll	€295.00
Site Licence - 100 to 200 pupils on roll	€369.00
Site Licence - 200+ pupils on roll	€443.00

Professor Layton and the Curious Village

Brain Training

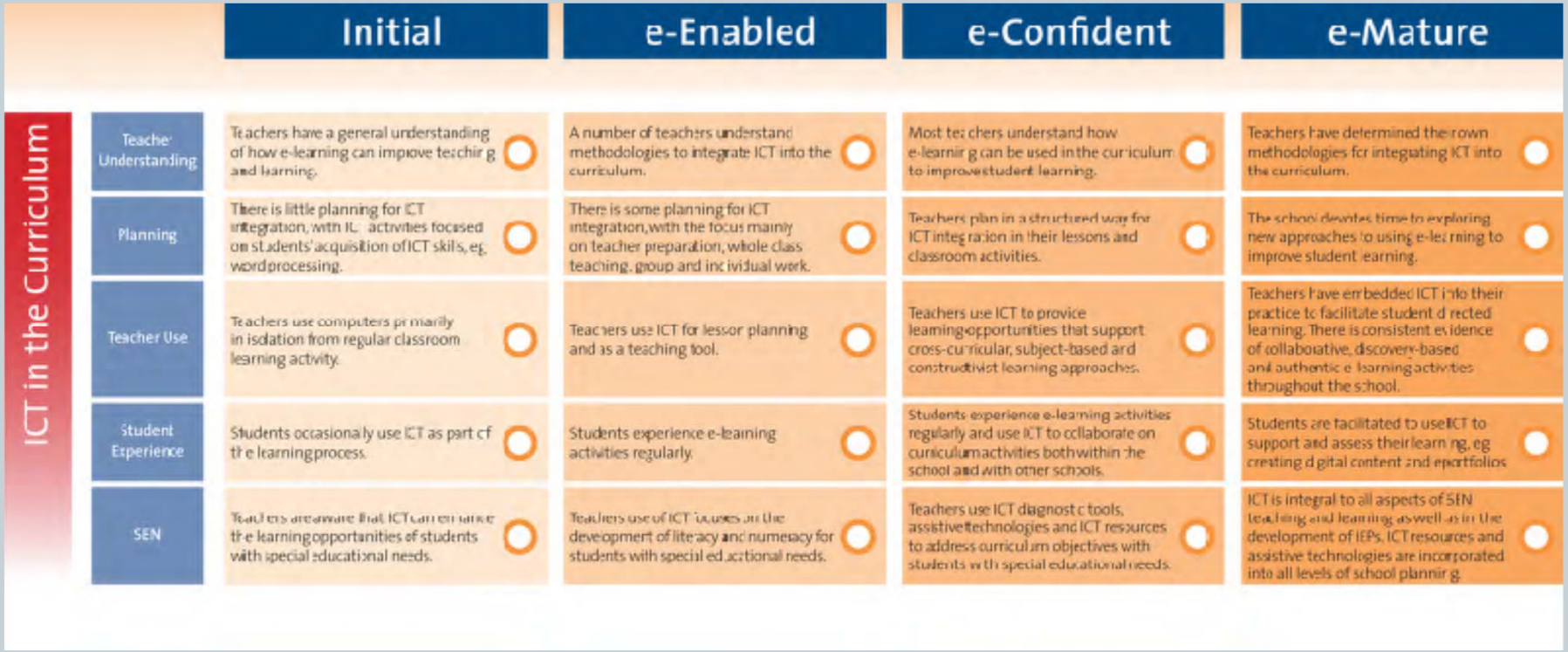


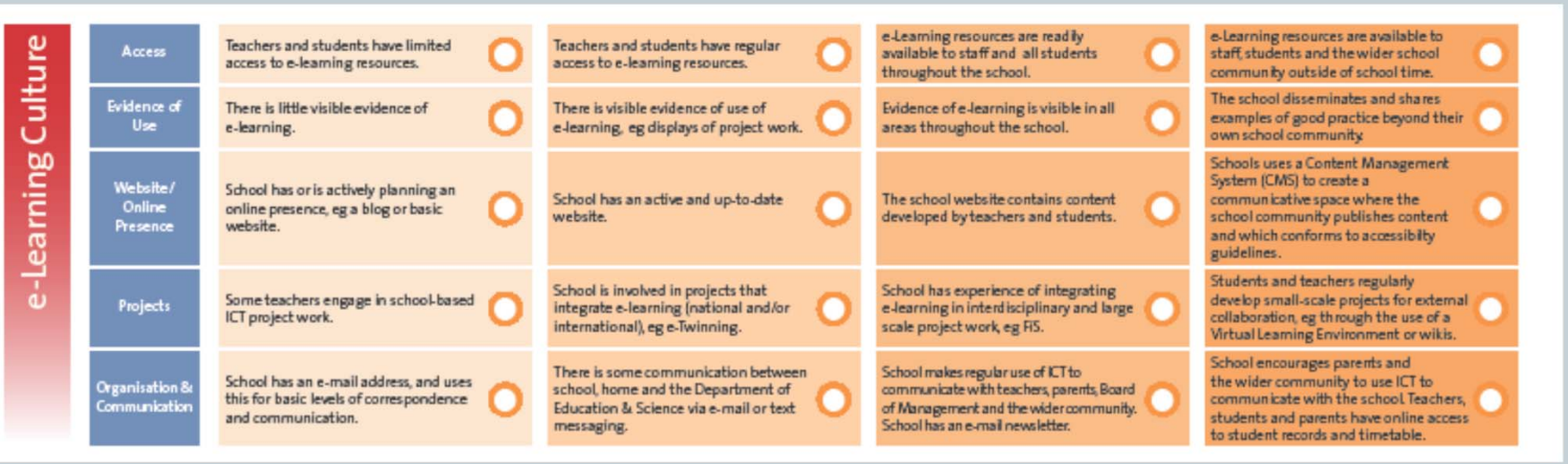
Word processor + camera

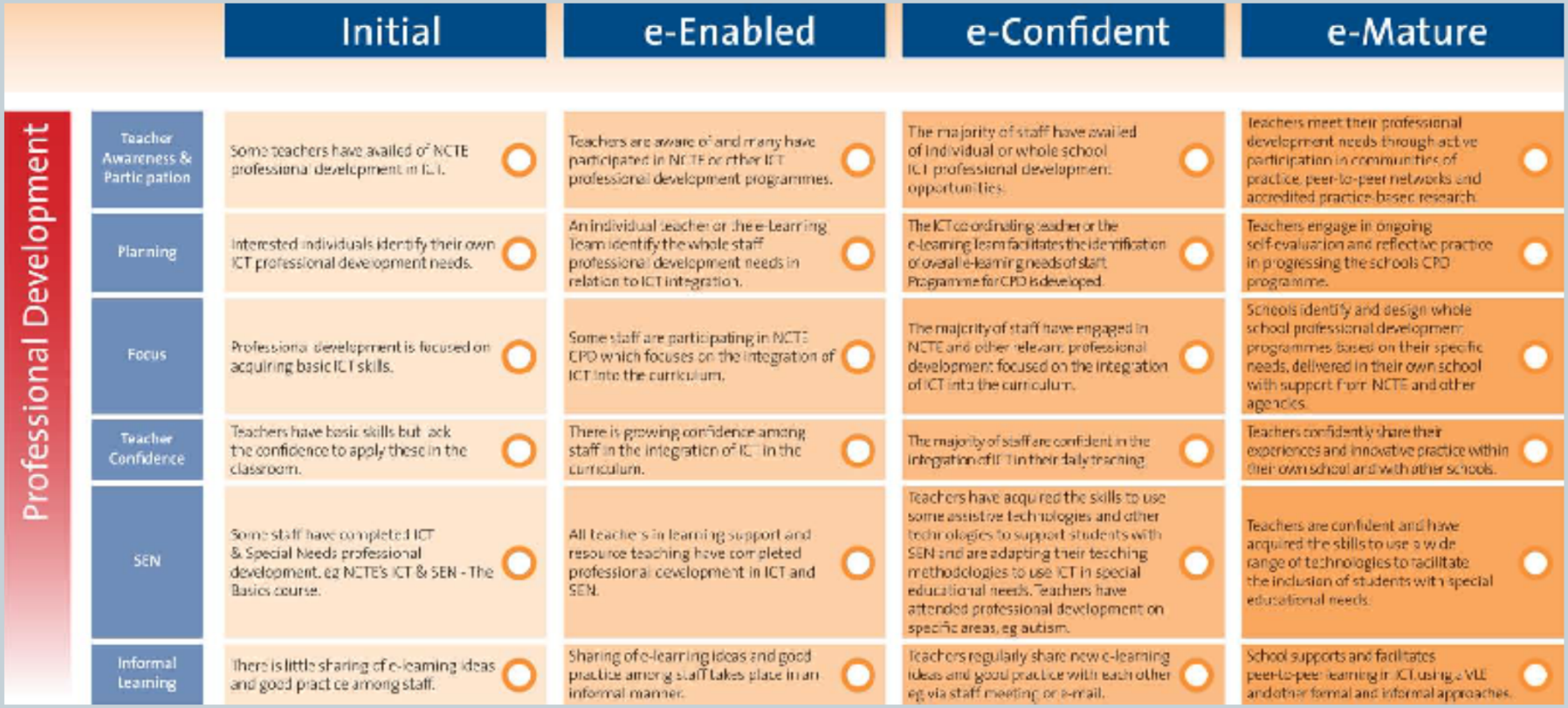

No one who ever bought a drill wanted a drill.
They wanted a hole.
Perry Marshall
It's the task that matters.

Leadership & Planning

	Initial	e-Enabled	e-Confident	e-Mature
Vision	Vision focuses mainly on ICT equipment.	e-Learning vision is developed by e-Learning Team.	e-Learning vision is fully integrated into the whole school vision.	e-Learning vision is wide ranging and shared by all stakeholders. It is actively tested through the student learning experience.
Plan	Basic ICT Plan is in place.	e-Learning Plan has been developed by e-Learning Team. One teacher or a group of teachers has assumed leadership for ICT planning in the school.	Comprehensive e-Learning Plan is integral to the whole school plan. The development of the plan is led by principal/ICT co-ordinating teacher/e-Learning Team with all staff contributing and whole school acceptance. There is a designated ICT co-ordinating teacher with clearly defined duties and responsibilities.	Teachers implement the e-Learning Plan in their daily work. Staff & students are actively engaged in innovative and exemplary practice.
Integration	Focus is mainly on ICT equipment and the acquisition of basic ICT skills.	Focus is mainly on supporting the integration of ICT usage throughout the school.	Focus is mainly on supporting more comprehensive integration of ICT and the exploration of new and more effective approaches to ICT integration.	Focus is mainly on supporting and facilitating personalised and self-directed learning.
Acceptable Use Policy	School has developed an Acceptable Use Policy for the Internet.	School has developed an AUP following consultation with staff, students, parents/guardians, board of management/trustees.	School has developed and ratified an AUP for Internet and ICT use following consultations with staff, students, and parents. All stakeholders are familiar with its contents and the plan is fully implemented.	The AUP accommodates innovative use of new technologies, and facilitates the development of an ethical and responsible approach to the use of these technologies.
Special Educational Needs	Support of ICT as a tool for learning in special educational needs exists but is uncoordinated.	Use of ICT is focused on the areas of learning support and resource teaching.	School supports and encourages the use of a wide range of ICT resources and assistive technologies throughout the school to facilitate the inclusion of students with special educational needs in line with the EPSEN Act.	School includes the use of ICT and assistive technologies in the development of all Individual Educational Plans (IEP) for students with special educational needs and uses ICT in all aspects of special educational needs assessment.

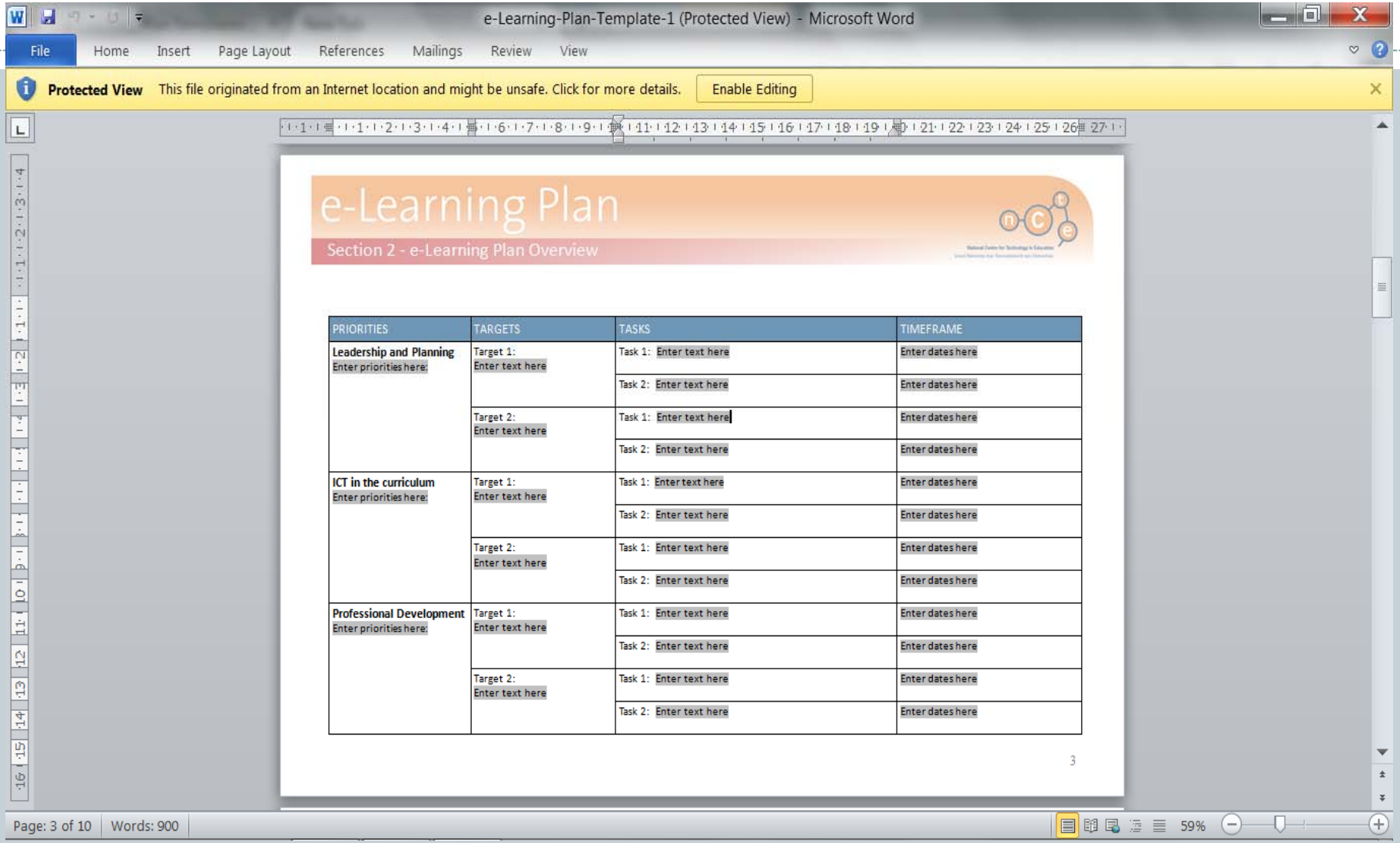

ICT in the Curriculum
Initial
e-Enabled
e-Confident
e-Mature
Teacher Understanding
Teachers have a general understanding of how e-learning can improve teaching and learning.
A number of teachers understand methodologies to integrate ICT into the curriculum.
Most teachers understand how e-learning can be used in the curriculum to improve student learning.
Teachers have determined their own methodologies for integrating ICT into the curriculum.
Planning
There is little planning for ICT integration, with ICT activities focused on students' acquisition of ICT skills, eg. word processing.
There is some planning for ICT integration, with the focus mainly on teacher preparation, whole class teaching, group and individual work.
Teachers plan in a structured way for ICT integration in their lessons and classroom activities.
The school devotes time to exploring new approaches to using e-learning to improve student learning.
Teacher Use
Teachers use computers primarily in isolation from regular classroom learning activity.
Teachers use ICT for lesson planning and as a teaching tool.
Teachers use ICT to provide learning opportunities that support cross-curricular, subject-based and constructivist learning approaches.
Teachers have embedded ICT into their practice to facilitate student directed learning. There is consistent evidence of collaborative, discovery-based and authentic e-learning activities throughout the school.
Student Experience
Students occasionally use ICT as part of the learning process.
Students experience e-learning activities regularly.
Students experience e-learning activities regularly and use ICT to collaborate on curriculum activities both within the school and with other schools.
Students are facilitated to use ICT to support and assess their learning, eg creating digital content and eportfolios
SEN
Teachers are aware that ICT can enhance the learning opportunities of students with special educational needs.
Teachers use of ICT focuses on the development of literacy and numeracy for students with special educational needs.
Teachers use ICT diagnostic tools, assistive technologies and ICT resources to address curriculum objectives with students with special educational needs.
ICT is integral to all aspects of SEN teaching and learning as well as in the development of IEPs. ICT resources and assistive technologies are incorporated into all levels of school planning.


e-Learning Culture
Access
Teachers and students have limited access to e-learning resources.
Teachers and students have regular access to e-learning resources.
e-Learning resources are readily available to staff and all students throughout the school.
e-Learning resources are available to staff, students and the wider school community outside of school time.
Evidence of Use
There is little visible evidence of e-learning.
There is visible evidence of use of e-learning, eg displays of project work.
Evidence of e-learning is visible in all areas throughout the school.
The school disseminates and shares examples of good practice beyond their own school community.
Website/ Online Presence
School has or is actively planning an online presence, eg a blog or basic website.
School has an active and up-to-date website.
The school website contains content developed by teachers and students.
Schools uses a Content Management System (CMS) to create a communicative space where the school community publishes content and which conforms to accessibility guidelines.
Projects
Some teachers engage in school-based ICT project work.
School is involved in projects that integrate e-learning (national and/or international), eg e-Twinning.
School has experience of integrating e-learning in interdisciplinary and large scale project work, eg FIS.
Students and teachers regularly develop small-scale projects for external collaboration, eg through the use of a Virtual Learning Environment or wikis.
Organisation & Communication
School has an e-mail address, and uses this for basic levels of correspondence and communication.
There is some communication between school, home and the Department of Education & Science via e-mail or text messaging.
School makes regular use of ICT to communicate with teachers, parents, Board of Management and the wider community. School has an e-mail newsletter.
School encourages parents and the wider community to use ICT to communicate with the school. Teachers, students and parents have online access to student records and timetable.


Professional Development
Initial
e-Enabled
e-Confident
e-Mature
Teacher Awareness & Partic pation
Some teachers have availed of NCTE professional development in ICT.
Teachers are aware of and many have participated in NCTE or other ICT professional development programmes.
The majority of staff have availed of individual or whole school ICT professional development opportunities.
Teachers meet their professional development needs through active participation in communities of practice, peer-to-peer networks and accredited practice-based research.
Planning
Interested individuals identify their own ICT professional development needs.
An individual teacher or the e-Learning Team identify the whole staff professional development needs in relation to ICT integration.
The ICT co-ordinating teacher or the e-learning team facilitates the identification of overall e-learning needs of staff. Programme for CPD is developed.
Teachers engage in ongoing self-evaluation and reflective practice in progressing the schools CPD programme.
Focus
Professional development is focused on acquiring basic ICT skills.
Some staff are participating in NCTE CPD which focuses on the integration of ICT into the curriculum.
The majority of staff have engaged in NCTE and other relevant professional development focused on the integration of ICT into the curriculum.
Schools identify and design whole school professional development programmes based on their specific needs, delivered in their own school with support from NCTE and other agencies.
Teacher Confidence
Teachers have basic skills but lack the confidence to apply these in the classroom.
There is growing confidence among staff in the integration of ICT in the curriculum.
The majority of staff are confident in the integration of ICT in their daily teaching.
Teachers confidently share their experiences and innovative practice within their own school and with other schools.
SEN
Some staff have completed ICT & Special Needs professional development, eg NCTE's ICT & SEN - The Basics course.
All teachers in learning support and resource teaching have completed professional development in ICT and SEN.
Teachers have acquired the skills to use some assistive technologies and other technologies to support students with SEN and are adapting their teaching methodologies to use ICT in special educational needs. Teachers have attended professional development on specific areas, eg autism.
Teachers are confident and have acquired the skills to use a wide range of technologies to facilitate the inclusion of students with special educational needs.
Informal Learning
There is little sharing of e-learning ideas and good practice among staff.
Sharing of e-learning ideas and good practice among staff takes place in an informal manner.
Teachers regularly share new e-learning ideas and good practice with each other eg via staff meeting or e-mail.
School supports and facilitates peer-to-peer learning in ICT using a VLE and other formal and informal approaches.

ICT Infrastructure

Planning for Acquisition of Resources	Basic level of planning for ICT purchasing exists.	Some level of ICT purchase planning takes place, including standardisation of ICT equipment, use of laser printers, and purchasing with warranty.	Procurement planning and standardisation of ICT equipment takes place. Older computers are disposed of environmentally.	There is an integrated approach to procurement which takes into account full operating costs of ICT equipment and technical support provision.
LAN & Broadband Access	A network exists in some areas of the school. School is connected to the Schools Broadband Programme. Internet access is distributed through the Local Area Network.	Most rooms and computers are connected to the school network, facilitating access to online and network resources.	A high speed and reliable network extends to all areas of the school. All computers are connected to the network facilitating access to online and locally based server resources.	Resources are accessible from a central server. All teachers and students have secure access to server space, and their e-portfolio, from within the school and remotely.
Technical Support	Technical support is carried out using mainly voluntary assistance. Occasionally a technician is paid to carry out urgent work.	Technical Support is provided by an external company on a call-out basis as required. No technical support contract is in place.	Technical support is factored into procurement planning, all equipment is procured with an appropriate warranty. Formal technical support contract with Service Level Agreement (SLA) is in place with an external provider.	Technical support is planned and integrated with ICT procurement planning and takes into account full ICT operating costs.
Software and Digital Content	Limited e-learning resources are available. Scoilnet is used regularly. Central licensing agreements are availed of.	The school has a range of appropriate e-learning resources to support learning at all levels.	There is easy access to appropriate digital content that teachers have catalogued by subject/curriculum area.	The school creates its own customised digital content which is accessible from home and school.
ICT Equipment	Some classrooms have desktop computers. A laptop and portable projector, printer and digital camera are available as shared resources.	Some rooms have digital projectors and computers. Peripherals, such as digital cameras and scanners are used for e-learning activities.	All learning areas have access to a range of ICT equipment including digital projectors and wirelessly-enabled tablet PC's. Laptop trolleys are used to improve access to resources.	All learning areas have access to a range of ICT equipment. Provision is made for the incorporation of students' mobile devices.
Licensing	It is unclear whether all software in use in the school is properly licensed.	The school is developing a software licensing programme for the applications installed on the school's equipment.	The school has a log of all licenses for software and applications in use throughout the school.	The school ensures that all new installations of hardware and software meet the required licensing standards.


e-Learning-Plan-Template-1 (Protected View) - Microsoft Word
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Home
Insert
Page Layout
References
Mailings
Review
View
Protected View
This file originated from an Internet location and might be unsafe. Click for more details.
Enable Editing
e-Learning Plan
Section 2 - e-Learning Plan Overview
PRIORITIES
TARGETS
TASKS
TIMEFRAME
Leadership and Planning
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ICT in the curriculum
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Professional Development
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3
Page: 3 of 10
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www.digitalschools.ie

45 criteria under 5 headings.

16 essential criteria.

- Leadership and Vision
- ICT in the Curriculum
- School ICT Culture
- Professional development
- Resources and infrastructure

Partners:

DES
Hewlett Packard
Microsoft
PDST Technology in Education
INTO
IPPN
CESI
Dublin West Education Centre

- There are 1790 schools registered – circa 60% of all primary schools in Ireland.

- 360 schools have become fully certified….over 10% of schools

- The ICT vision is integrated into the whole-school plan.
- There is a whole-school policy approved by all stakeholders in place.
- There is an Acceptable Use Policy (AUP) that is implemented throughout the school.
- ICT supports the key principles of the Primary School Curriculum.
- ICT is integrated across a wide range of curricular areas.
- ICT is used across all ability levels.
- Assistive Technologies and appropriate ICT software are integral resources for the students with special educational needs who require additional or differentiated learning.
- The Internet is used as a learning and teaching resource throughout the school.
- The school has published a school website that is up-to-date and current, and features pupils' work.
- The school shows evidence of sufficient and adequate access to computers/laptops that reflects the context of the particular school and with reference to the national student computer ratio.
- There is a computer network available for educational purposes.
- Internet access is available throughout the school via 'The Schools Broadband Network.
- There is a variety of content-rich and content-free software available for use covering a range of curricular areas and class levels catalogued.
- All software is licensed.
- There is a mechanism in place to inform teachers of courses in relation to professional development in ICT.
- The school keeps abreast of developments in technological and professional ICT practice and is aware of the professional development needs of the staff in relation to ICT.