#### **SECTION A: SCHOOL INFORMATION**

State specialism		SCIENCE			
School name		St Mary's College			
Concornanio					
School address		Fanad Drive Creggan Derry			
	Postcode	BT48 9QE			
Email address office@stmary		sderry.com	Telephone number	(028) 71362154	
Name of Principal		Dame Geraldine Keegan			

# St Mary's College, Londonderry

# Stage 2 Application for Specialist School Status

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#### **SECTION B: GENERAL CASE**

#### Science is our chosen specialism.

#### How we will use Science to raise achievement.

- Science will be used to raise achievement in St Mary's and in partner schools through developing strategies such as:
  - I. Improving learning through the use of Co-operative-learning strategies. (Appendix H)
  - II. The increased use of ICT as a learning resource.
  - III. The development of the Step-Up Programme (Appendix B)
  - IV. The EFQM framework for self evaluation and improvement particularly with regard to the use of pupil performance data (Appendix E).
  - V. Interventions as outlined in our STAR Programme (Appendix F)

#### What we aim to achieve in 4 years time.

- We will have raised attainment in all subject areas.
- We will have raised attainment levels in partner schools.
- We will have raised attainment levels in Science at Key Stages 3, 4 and post 16.
- We will have increased participation rates in Science at Key Stage 4 and post 16.
- We will have raised awareness and enjoyment of Science among parents and community
- We will have achieved Specialist Science Teacher Training Status in partnership with the University of Ulster.

Our school already has a distinctive ethos and identity of being highly successful and innovative. (Appendix L). Having Science specialist status will greatly enhance this profile by creating more opportunities for girls to follow Science-related courses which will lead to future employment. At the same time we will ensure more pupils achieve  $5 + A^* - C$  grades including Maths and English which will increase their options in terms of further and higher education and employment when they leave school in line with the Northern Ireland Skills Strategy.

Science specialist status will give parents and pupils the choice of a school that is not just about 'delivering the curriculum' but one that is committed to a process of lifelong learning, parental and community participation and raising standards, (in line with the Costello Report and Entitled to Succeed,e2s).

#### How we will use the specialism to develop links with other schools.

We already have a very successful 'Step-Up' Science programme (supported by the University of Ulster) in place post 16, involving 4 other local secondary schools. We intend to extend this to include five of our partner primary schools at Key Stages 1 and 2 and St. Joseph's and Lisneal colleges at Key Stages 3 and 4, congruous with e2s and the Vocational Education Programme, VEP.

Our chosen primary school partners are: St. Anne's, St. Eithne's, Holy Child, St. Patrick's and Holy Family.

We will develop the following links with our partner primary schools:

- Access to Science laboratories and a specialist Science centre based at the new 'state of the art' Creggan Library building.
- ICT as a learning resource providing each partner school with an interactive whiteboard, technical support and involvement in our e-learning website. (in line with the Empowering Schools in Northern Ireland Strategy)
- Improved classroom practice through Co-operative-learning and team teaching.
- Joint projects and competitions
- Access to extra-curricular Science activities through Saturday School and Summer School. (STAR programme congruous with the development of New Targeting Social Needs, NTSN, Anti-poverty Strategy.)
- Self evaluation and whole school improvement (using EFQM and I.I.P in line with the ETI's 'Together Towards Improvement' and 'Evaluating Schools')
- Support for the implementation of the new Science curriculum at Key Stages 1 and 2 with resource boxes for identified Science topics.
- A Careers programme at Key Stage 2 (Step-Up programme)
- Science specialist activity days. (Step-Up programme)

Our chosen secondary partners are: St. Joseph's Boy's School and Lisneal College. We will develop the following with these schools:

- ICT as a learning resource providing each partner school with an interactive whiteboard, technical support and involvement in our e-learning website, in line with The Empowering Schools in Northern Ireland Strategy,
- Improved classroom practice through Co-operative-learning and team teaching.

- Support for the development of the new Science curriculum at Key Stages 3 and 4 including access to alternative vocational courses Key Stage 4 (The Entitlement Framework and the Vocational Enhancement Programme, VEP)
- Access to alternative vocational courses at Key Stage 4. (The Entitlement Framework / VEP)
- Access to vocational taster courses post 16. (Enrichment programme, VEP)
- Joint projects and competitions
- Access to extra-curricular Science activities through Saturday School and Summer School. (STAR programme)
- Self evaluation and whole school improvement. (EFQM and I.I.P)
- A careers' programme at Key Stages 3, 4 and post 16. (Step-Up)
- Science specialist activity days. (Step-Up)
- Access to academic tutors. (STAR)

#### Development of partnership with Further Education (Step-Up/ STAR Programmes)

In line with the Entitlement Framework and the Vocational Education Programme our partnership with further education, (N.W.I.F.H.E) will be threefold, involving partner primary schools, our partner secondary schools and parents.

It will include the following for each area;

Partner Primary Schools	Partner Secondary Schools	Parents
Host activity days	<ul> <li>Taster courses – post 16 (Enrichment</li> </ul>	Access to taster courses
<ul> <li>Access to laboratories and resources</li> </ul>	programme)	<ul> <li>Access to short accredited courses (pre access)</li> </ul>
Planned visits	Alternative vocational courses	Provision of access course
Careers days	Host activity days	Foundation degree courses
	<ul> <li>Access to laboratories and resources</li> </ul>	Development of parents into classroom
	Planned visits	programme
	Careers' days	Involvement in e-learning website
	• Involvement in e-learning website	

#### Our partnership with Higher Education (University of Ulster)

Partner Primary Schools	Partner Secondary Schools	Parents	
• Extending Step-Up Science to include Key Stage 1 and 2 pupils.	• Extending Step-Up Science to include Key Stage 3 and 4 pupils.	<ul><li>Access to the Foundation and Primary degrees</li><li>Access to our e-learning website</li></ul>	
• Involvement in the development of our e-learning website	• Involvement in the development of our e-learning website	<ul> <li>Science initiative with parents of partner primary schools.</li> </ul>	
Careers days	• Development of the students' mentor programme		
	Careers days		

Our partnerships with the Wider Community (Business and Community) in line with the Vocational Education Programme, VEP.

> Development of 'Back to school day for local employers'

> Development of 'Role Model Week'

> Involvement in the development of the new curriculum

> Development and training of business / industrial partners

Careers talks and work shadowing for pupils and staff

> Involvement in the development of our e-learning website

# SECTION C: SCHOOL PLAN C1. School plan: audit

Subject	Strengths	Areas for development		
	Attainment (Examination Performance)	<b>a.</b> Attainment Examination Performance at Key Stage 3 is good but could be improved in terms of numbers		
Science "Science is quite comfortably St	Key Stage 3 (2005)         Key Stage 4 (2005) 147 pupils           Level 5 or above         54.1%         5+ grades A*- C : 63%           Level 6 or above         22.9%         5	achieving levels 5 and 6. Examination Performance at Key Stage 4 is very good but there are still areas for improvem including participation rates in Double Award Science. The number achieving grade D could		
	Examination Performance Post 16 (20 pupils, 2005) Grade A: 18%, Grade B: 40%, Grade C: 28%, Grade D: 15%	reduced by converting the borderline Grade Ds to Grade Cs. Examination performance post 16 is excellent with 85% achieving grades A*-C. The area for development here is to increase participation rates.		
Mary's flagship performer" Prof Daws, 2005	Science contribution to no. gaining 5+ grades A*-C at GCSE Science increased overall school performance of 5+ Grades A*- C from 51.0% to 59.2% - an increase of <b>8.2%</b> for the school year 2004 -2005.	By improving performance in Science we intend to raise standards of achievement in all other subjects so the overall school performance should improve as a result.		
"I particularly admire the (Science) staff's skill in managing mixed ability teaching. They can inspire good	<b>b. Teaching and Learning</b> Science has been a key department in the introduction of a highly innovative approach to teaching and learning called Co-operative- learning which enables pupils to become successful learners and responsible citizens. It develops not just academic knowledge but social skills at the same time. This approach has been shown to increase self-esteem and raise attainment levels. A Science teacher has trained as an expert in this. This approach supports the Entitlement Framework, Entitled to Succeed, (e2s), the Costello Principles and the Skills Strategy for Northern Ireland.	Co-operative-learning is an excellent approach to meeting the teaching and learning requirements of the new curriculum. It is a generic strategy applicable at all stages and in all subjects. We want to develop this to enhance our pupils' academic and social skills through a shared and participatory approach to learning. The role of the teacher will change to that of a facilitator who will use assessment for learning to ensure progression for every pupil in the class. The Science expert can further train staff and pupils in the skills of Co-operative-learning so that Co-operative-learning lessons are identified in the schemes of work in every subject and in every year.		
from every section of the	Target-setting and interventions for underachievement are well developed at Key Stage 4.	Systematic diagnostic use of assessment data, CATS and NFER scores needs to be developed especially at Key Stage 3 and further developed at Key Stage 4.		
ability spectrum. Most Impressive." Prof Daws. 2005	<ul> <li>c/d. Curriculum Provision and Uptake</li> <li>Key Stage 3 – 100% access and 100% uptake</li> <li>All pupils: 4x45 min periods/week.</li> <li>All Year 9 pupils: 1 day's field work at Magilligan Field Centre.</li> <li>Key Stage 4 – 100% access and 100% uptake</li> <li>A range of courses are offered to best meet the needs of our pupils.</li> <li>Double Award - 30% pupils - 6 x 45 mins periods/ week</li> <li>Single Award - 70% pupils (modular/non-modular) 4x45 min./week</li> <li>Access to 1 talk from U.U. re; post 16 Science and career paths.</li> <li>Post 16; Applied GCE Double Award Science</li> <li>Lwr 6<sup>th</sup>. 05/06 (No. pupils: 19) Upr. 6<sup>th</sup>. 05/06 (No. pupils: 22)</li> <li>14x45 min. periods plus 1 afternoon/week offsite supported by U.U.</li> <li>Salter's Chemistry Challenge</li> <li>Extra-curricular provision Chemistry club. Environmental club.</li> </ul>	<ul> <li>Key Stage 3 and Key Stage 4 – Enhancing Curriculum Experience</li> <li>To develop links with FE, H.E, industry, and the wider community.</li> <li>To increase opportunities to work with pupils from other schools and other communities.</li> <li>To increase opportunities to go on educational visits, have speakers in the classroom and have thematic topics covered in Science with local emphasis.</li> <li>To extend Step-Up in partnership with Further and Higher Education.</li> <li>To increase participation rates at Key Stage 4 by increasing the number of pupils studying Double Award Science by offering Key Stage 4 vocational Science.</li> <li>Post 16</li> <li>We will develop this by providing taster courses at FE through an enhanced enrichment programme. We want to increase the number of pupils studying Advanced level Applied Science post-16.</li> <li>Extra-curricular provision: We will increase the number of extra-curricular activities</li> </ul>		

<ul> <li>Young Scientist club, Salter's Chemistry Challenge</li> <li>e. Resources Accommodation 7 fully equipped Science laboratories each with a fume cupboard, 3 prep. rooms, a large greenhouse and a computer suite. We have 3 digital projectors, a good bank of ICT resources, and 2 class sets of data loggers with pH, temperature and light sensors. Staffing 9 full time teachers, 3 physics, 3 chemistry and 3 biology specialists. One permanent and one temporary full-time Science technicians f. ICT All Key Stage 3 pupils complete at least two ICT based Science investigations.</li></ul>	<ul> <li>available to our pupils including Saturday school and Science workshops. We will increase participation in Science competitions e.g. ESAT Young scientist, Express Yourself, BT Young Scientist and Galway Science and Technology Festival.</li> <li><b>Resources:</b> As we will move to our new school in September 2008, it is not feasible to develop a full specialist Science Centre on our existing site. However, we have procured 'state of the art' premises at the adjacent new Creggan Library which we will develop as a Specialist Science Centre for use by our partner schools and the community. In addition, this building also offers excellent facilities including two dental suites and a triage centre. We also have negotiated the use of specialist Science facilities to be available for our partner schools and the community on Wednesday afternoons at the NWIFHE. Both these excellent opportunities will be available to us from Sept 1<sup>st</sup> 2006.</li> <li><i>Staffing</i></li> <li>We will employ one extra Science teacher and an ICT technician.</li> <li><b>ICT</b>: We will:</li> <li>develop e-learning through the construction of our own Science website for use by our own</li> </ul>
All Key Stage 4 pupils use ICT for data handling and analysis. All post 16 pupils use a wide variety of ICT resources including PowerPoint, excel, Microsoft word and the internet.Quality of Management The department as well as the school as a whole, is managed using the EFQM Model, regarded as the most systematic framework for organisational excellence in Europe. The Head of Department uses the EFQM model for self-evaluation (in line with "Together towards improvement-A process of self-evaluation). Areas of strength and areas for improvement are identified every 2 years through systematic surveying of pupils, parents, staff and key partners. Priorities are identified in line with whole school priorities,	<ul> <li>develop e-learning through the construction of our own Science website for use by our own pupils, partner feeder primary and secondary schools, parents and the wider community and further and higher education.</li> <li>develop the use of ICT as a learning resource including the use of interactive whiteboards.</li> <li>develop the use of ICT for pupil profiles, assessment for learning and target-setting.</li> <li>install an interactive white board and fitted data projector in every Science classroom.</li> <li>invest in comprehensive Key Stage 2, 3, 4 and post 16 software packages for use in the classroom.</li> <li>increase the number of ICT based Science investigations at all Key Stages.</li> <li>purchase a set of laptops to equip a classroom as an ICT suite.</li> </ul>
<ul> <li>benchmarks identified and targets set. There is regular and systematic monitoring and evaluating of the range and quality of provision including the quality of teaching and learning (through classroom observation), access and performance against targets using the balanced scorecard (appendix D)during regular departmental meetings. Dissemination of good practice occurs and training needs are identified annually and training is provided inhouse or through partner organisations (in line with Investors in People).</li> <li>3 Science staff have the PQH and 4 have Master's degrees. The Head of Department recently was awarded the IEP National Teaching Award for promoting Science and Engineering courses leading to further and higher education and the Science technician received the Salter's National Technician of the Year award (2004).</li> </ul>	In order to carry this out effectively we will need to identify, train and develop a leadership team with overall responsibility for implementing the plan. We also need to upgrade the ICT skills of all members of the department to enable the much wider use of ICT as a learning resource. We will initially need an extra specialist Science teacher and also an extra ICT technician. We will employ more staff, on a needs basis as the programme develops. We will also improve the system for tracking progress through Key Stages 3, 4 and post 16. In addition to this, a management structure will be put in place for implementing the specialism. See page:61

**B** Please indicate how you currently share effective teaching and learning strategies between subject areas (specialist and non-specialist) within your school.

- St. Mary's has established a strong culture of disseminating good classroom practice over a number of years.
- Dissemination of good practice started in the mid- nineties when over 70% of staff trained as (PGCE) Expert teachers. Each teacher then acted as a critical friend to a chosen colleague who observed each other in the classroom and identified strengths and suggested areas for improvement. This system has developed into a more formal classroom observation system which was introduced two years ago. It has developed further as a result of the introduction of PRSD. All classroom teachers are observed by their line manager against pre-determined criteria which include aspects of Co-operative-learning. This 'open door' culture allows for the sharing of good practice within and across departments. It also affords all staff, and in particular Heads of Departments, the opportunity to share approaches to teaching particular topics and particular groups which are deemed more effective than others.
- We have, for the past three years, been developing Co-operative-learning. This strategy incorporates many of the key features of personalised learning which is widely used throughout the United Kingdom. It also enables teachers to address the challenges that underpin initiatives such as Entitled to Succeed and the new curriculum. The Head of Science has been trained as an expert in Co-operative-learning. This approach to classroom teaching has been the focus of many after-school meetings within departments but more significantly, it has been the focus of much training and development across departments on in-service days and in after-school meetings. This has allowed for the dissemination of much expertise within the school on this new approach.
- In addition, we have information on our website and we have produced teacher friendly and pupil friendly posters relating to Co-operative-learning for the classroom. We have published a booklet of useful strategies that have been tried and tested by our staff and we are presently preparing a second book. We also have produced videos of good examples of teaching and learning lessons in the school and these are available to all staff.
- The sharing of good practice across departments is planned by the Strategy group, made up of staff from a number of different specialisms who have responsibility for moving the school forward in line with identified priorities. The actual implementation of the dissemination of good practice is undertaken by the School Improvement Committee again made up of a cross section of staff from different departments.
- Pupils, through their School Council, and parents, through the PTA, are regularly consulted regarding ways of improving teaching and learning. Results of these discussions are shared with all staff.
- All staff, parents and pupils are surveyed biennially regarding teaching and learning. The feedback from the surveys is communicated to all staff and areas for improvement are addressed through School Improvement Groups. Action plans are drawn up, implemented through the school improvement committee, and monitored and reviewed by senior management.
- Pupils in Science classes are regularly surveyed regarding the quality of teaching and learning within Science and improvements are made where necessary.
- The use of the EFQM Model ensures that it is the focus of our work in the school is based on our most critical process, teaching and learning. Fundamental aspects of the model are teamwork (which ensures that we share best practice with each other), and monitoring and evaluation

Please outline your links with existing post-16 providers (e.g. FE Colleges, other schools with sixth forms).				
Subject	Existing links	Proposals for extending and stre	engthening links	
Science	<ul> <li>Step-Up Science Programme</li> <li>Links with the U.U. and other secondary schools.</li> <li>The school is currently a participant in the University of Ulster 'Step-Up' Programme. (Appendix B). Staff and pupils from five local secondary schools, including ourselves, work in partnership with staff and students from the University of Ulster to deliver the Double Award Applied Science qualification. The aim of the Step – Up Programme is to assist pupils from disadvantaged backgrounds to gain entry and complete programmes of scientific study at the University of Ulster. Pupils who participate in the 'Step-Up' programme have the opportunity to earn sixty extra UCAS points which they can use to gain entry to courses of their choice in the U.U. Every Wednesday afternoon 'Step-Up' pupils from participating schools are educated 'off site' at U.U. or in local industries / businesses.</li> <li>Here they have the opportunity to: <ul> <li>Participate in lectures by invited speakers from a variety of specialist Science backgrounds</li> <li>Undertake practical work using specialist state-of- the-art Science laboratories.</li> <li>Participate in turoring sessions</li> <li>Prepare and give PowerPoint presentations to an invited audience.</li> </ul> </li> <li>Pupils also are required to participate in a residential Science summer school at the end of their lower sixth year.</li> <li>Teachers from all schools work in specialist cluster groups (physics, chemistry and biology) to prepare and share resources for the delivery of this course. They are also involved in setting and cross moderation of portfolio work.</li> </ul>	It is envisaged that we will extend the 'Step-Up' mo at Key Stage 3 and 4 but also the pupils in our partn envisage working with U.U. and with the local F.E of us in delivering this programme U.U. • Host planned visits. • Host planned visits. • Host activity days • Assist in development of science-based website • Access to laboratories and resources • Careers days • Student mentors	<ul> <li>del to include not only pupils er primary schools. We College (NWIFHE) to assist</li> <li>N.W.I.F.H.E <ul> <li>Host activity days</li> <li>Give access to laboratories and resources on Wed. afternoons</li> <li>Host planned visits</li> <li>Career's talks</li> </ul> </li> <li>N.W.I.F.H.E <ul> <li>Taster courses – post 16 (Enrichment programme)</li> <li>Alternative vocational courses Key Stage 4(VEP)</li> <li>Alternative vocational courses post 16</li> <li>Host activity days</li> <li>Access to laboratories and resources</li> <li>Planned visits</li> <li>Careers days</li> <li>Involvement in e- learning website</li> </ul> </li> </ul>	

#### C2. School plan: Objectives and Targets

#### **OBJECTIVE A: Subject**

Specialist Subject: Science

- > To raise standards of achievement in Science
- > To increase participation in Science at Key Stage 4 and Post 16
- > To extend curricular opportunities in Science including enrichment, out of hours learning, partnerships with other schools, F.E and H.E., industry/business and the wider community.

These objectives will be achieved through the use of Co-operative-learning, ICT, the Step-Up programme, the STAR Programme and the EFQM model.

- Co-operative-learning is an innovative approach to learning in the classroom in that it promotes not just academic skills but social skills as well and promotes personalised learning based on individual needs. Research findings from the Republic of Ireland, Scotland, Canada and New Zealand have shown that this approach raises standards particularly among lower achieving pupils. The Science department will become experts in the use of Co-operative-learning strategies and use them to promote achievement and independent learning in Science.
- The Science department will develop expertise in the use of ICT not only for raising standards within the classroom through the introduction of interactive whiteboards and learning packages such as Boardworks, but also through the use of ICT for developing pupil profiles, assessment, tracking and target-setting. ICT will also be used to develop collaborative-learning for teachers and pupils through the use of C2K and Oracle's ICT educational services.
- Pupils, through their School Council, and parents, through the PTA, are regularly consulted regarding ways of improving teaching and learning. Results of these discussions are shared with, and addressed by all staff.
- The Science department will further develop the use of the EFQM management framework, the most systematic framework for organisational development in Europe, to bring about improvement and raise standards of achievement in the department.
- The STAR programme will be developed to provide pupils with a series of interventions e.g. Saturday School, University Summer School, to raise standards of achievement.
- The Step-Up programme will be developed to include interventions at Key Stages 3 and 4 and used as the framework for further development of partnerships with other schools, F.E., H.E., industry/business and the wider community.

Key Stage	Year	Target	Describe how you will implement these targets (use bullet points and short statements)
3	1	Level 5 or above 55%	ICT : Responsibility of lead ICT Science teacher (Mr. J. O'Flaherty)
		Level 6 or above 23%	• Access in-service training to develop ICT skills, particularly the use of interactive whiteboards as a learning resource. HOD to arrange 2 days training for all Science staff through Mr. M. Lynch, (WELB Science and ICT adviser).
			• Develop ICT as a learning resource in the classroom. Package of PowerPoint presentations suitable for use with the new Year 8 curriculum to be collated and made available for Science staff on Learning Resources so that each topic has at least one ICT based lesson. (Year 8)
			• Complete one ICT based Science investigation in Year 8.
			• Develop data base for monitoring, tracking and target setting for Year 10 pupils. Use this to identify pupils who are underachieving.
			• Develop a school-based Science website for e-learning. (ORACLE)
			Co-operative-learning : Responsibility of lead Co-operative-learning teacher (Mrs M. Mulhern)
			• Provide two in-service training days to develop Co-operative-learning as a teaching strategy.
			• Implement one Co-operative-learning strategy per topic in Year 8.
			• Introduce one CASE 'Thinking Science' lesson to Year 8.
			Step-Up: Responsibility of lead Step-Up teacher (Mrs M. Mulhern)
			• Host a Science careers day for our Year 10 pupils. Invite one Science speaker from F.E, H.E, local industry/business and the wider community. (Total: 5 speakers)
			• Year 8 pupils to participate in Salter's Chemistry Challenge at the University of Ulster.
			• Organise two Science-based events during Science week including speakers from local industry, the "Thinking Science" Road show.
			STAR: Responsibility of lead Key Stage 3 STAR teacher (Mr. M. Logue)
			• Introduce a Salter's' Chemistry Club to Saturday School to improve performance. (Target: 8 pupils)
			• Introduce one Key Stage 3 Science activity to the Year 10 summer school programme.
			• Introduce the BA Crest Award scheme for Year 8 as an after-school activity to develop investigative and problem solving skills. (Target: 8 pupils)
			• Introduce two interventions to support Year 10 target pupils.
			EFQM: Responsibility of lead EFQM teacher (Mrs M. Lindsay)
			• Carry out a Science audit to review teaching styles in Year 9 and identify areas for improvement and disseminate good

		practice.
		• Peer observation of Science lessons in Year 9 to identify good practice and share expertise.
		• Introduce target setting in Year 10 and identify pupils who need support to achieve their predicted grade
2	Level 5 or above 56%	ICT : Responsibility of lead ICT Science teacher (Mr. J. O'Flaherty)
	Level 6 or above 24% (Teacher assessed)	• Access in-service training to further develop ICT as a learning resource. HOD to arrange one training day for all Science staff through Mr. M. Lynch, (WELB Science and ICT adviser).
		• Develop ICT as a learning resource in the classroom. Package of PowerPoint presentations suitable for use with new Year 9 curriculum to be collated and made available for Science staff on Learning Resources so that each topic has at least one ICT based lesson. (Year 9)
		• Complete one ICT based Science investigation in Year 9.
		• Develop a database for monitoring, tracking and target setting Year 9 pupils. Use this to identify pupils who are underachieving.
		• Further develop a school-based website for e-learning and extend its use to our partner schools (ORACLE).
		Co-operative-learning : Responsibility of lead Co-operative-learning teacher (Mrs M. Mulhern)
		• <sup>1</sup> / <sub>2</sub> day in-service training to further develop Co-operative-learning as a teaching strategy.
		• Implement one Co-operative-learning strategy per topic in Year 9.
		• Introduce one CASE 'Thinking Science' lesson per term to Year 9.
		Step-Up: Responsibility of lead Step-Up teacher (Mrs M. Mulhern)
		• Host a Science careers day for our Year 9 and 10 pupils. Invite Science speakers from F.E, H.E, local industry/business and the wider community. (Total: 8 speakers)
		• Organise 3 Science-based events during Science week including speakers from local industry, "Thinking Differently" Road Show, Chemistry Challenge for Year 8 pupils (based on Salter's activities).
		STAR: Responsibility of lead Key Stage 3 STAR teacher (Mr. M. Logue)
		• Develop Salter's' Chemistry Club at Saturday School to improve performance. (Target: 10 pupils)
		• Introduce two Key Stage 3 Science activities to the Year 10 summer school programme.
		• Introduce the BA Crest Award scheme for Year 9 as an after-school activity to develop investigative and problem solving skills. (Target: 8 pupils)
		• Introduce two interventions to support Year 9 target pupils.
		• Introduce one further intervention to support Year 10 target pupils. (Total interventions: 3)

		EFQM: Responsibility of lead EFQM teacher (Mrs M. Lindsay)
		• Science audit to review teaching styles in Year 8 and identify areas for improvement and disseminate good practice.
		• Peer observation of Science lessons in Year 8 to identify good practice and share expertise.
		• Introduce target setting in Year 9 and identify pupils who need support to achieve their predicted grade
3	Level 5 or above 57%	ICT : Responsibility of lead ICT Science teacher (Mr. J. O'Flaherty)
	Level 6 or above 25% (Teacher assessed)	• Access in-service training to further develop ICT as a learning resource. HOD to arrange a half day training for all Science staff through Mr. M. Lynch. (WELB Science and ICT adviser).
		• Develop ICT as a learning resource in the classroom. Package of PowerPoint presentations suitable for use with new Year 10 curriculum to be collated and made available for Science staff on Learning Resources so that each topic has at least one ICT based lesson. (Year 10)
		• Complete one ICT based Science investigation in Year 10.
		• Develop data base for monitoring, tracking and target setting for Year 8 pupils. Use this to identify pupils who are underachieving.
		• Continue to develop a school-based Science website for e-learning and extend its use to community groups (ORACLE).
		Co-operative-learning : Responsibility of lead Co-operative-learning teacher (Mrs M. Mulhern)
		• <sup>1</sup> / <sub>2</sub> day in-service training to further develop Co-operative-learning as a teaching strategy.
		• Implement one Co-operative-learning strategy per topic in Year 10.
		• Introduce one CASE 'Thinking Science' lesson per term to Year 10.
		Step-Up: Responsibility of lead Step-Up teacher (Mrs M. Mulhern)
		• Host a Science careers day for our Year 8, 9 and 10 pupils. Invite Science speakers from F.E, H.E, local industry/business and the wider community. (Total: 10 speakers)
		• Organise 4 Science-based events during Science week including speakers from local industry, the "Thinking Differently" Road Show, Chemistry Challenge for Years 8 and 9 (based on Salter's Activities).
		STAR: Responsibility of lead Key Stage 3 STAR teacher (Mr. M. Logue)
		• Develop the Salter's' Chemistry Club in Saturday School to improve performance. (Target: 12 pupils)
		• Introduce three Key Stage 3 Science activities to the Year 10 summer school programme.
		• Introduce the BA Crest Award scheme for Year 10 as an after-school activity to develop investigative and problem solving skills. (Target: 8 pupils)
		• Introduce two interventions to support Year 8 target pupils.

		• Introduce one further intervention to support Year 9 target pupils. (Total: 3 interventions)
		EFQM : Responsibility of lead EFQM teacher (Mrs M. Lindsay)
		• Science audit to review teaching styles in Year 10 and identify areas for improvement and disseminate good practice.
		• Peer observation of Science lessons in Year 10 to identify good practice and share expertise.
		• Introduce target setting in Year 8 and identify pupils who need support to achieve their predicted grade.
4	Level 5 or above 58%	ICT : Responsibility of lead ICT Science teacher (Mr. J. O'Flaherty)
	Level 6 or above 26% (Teacher assessed)	• Access in-service training to further develop ICT as a learning resource. HOD to arrange 1/2 day training for all Science staff through Mr M. Lynch. (WELB Science and ICT adviser).
		• Revise and update ICT learning resources available in the department for Key Stage 3.
		• Complete one further ICT based Science investigation in Year 8. (Total: 2)
		• Revise and update database for monitoring, tracking and target setting for Key Stage 3 pupils.
		Continue to develop a school-based Science website for e-learning. (ORACLE)
		Co-operative-learning : Responsibility of lead Co-operative-learning teacher (Mrs M. Mulhern)
		• <sup>1</sup> / <sub>2</sub> day in-service training to further develop Co-operative-learning as a teaching strategy.
		• Implement another Co-operative-learning strategy per topic in Year 8. (Total: 2 per unit)
		• Introduce one further CASE 'Thinking Science' lesson per term to Year 8. (Total: 6)
		Step-Up: Responsibility of lead Step-Up teacher (Mrs M. Mulhern)
		• Host a Science careers day for Year 8 pupils from St. Mary's and from one of our partner secondary schools. Invite Science speakers from F.E., H.E., local industry/business and the wider community. (Total: 10 speakers)
		• Organise 5 Science-based events during Science week including speakers from local industry, the "Thinking Differently" Road Show, Chemistry Challenge for years 8, 9 and 10, (based on Salter's Activities).
		STAR: Responsibility of lead Key Stage 3 STAR teacher (Mr. M. Logue)
		• Develop Salter's Chemistry Club to Saturday School to improve performance. (Target: 15 pupils)
		• Introduce four Key Stage 3 Science activities to the Year 10 summer school programme.
		• Introduce the BA Crest Award scheme for Year 10 as an after-school activity to develop investigative and problem solving skills. (Target: 8 pupils)
		• Introduce one further intervention to support Year 8 target pupils. (Total: 3 interventions)
		EFQM: Responsibility of lead EFQM teacher (Mrs M. Lindsay)

			• Science audit to review teaching styles in Year 8 and identify areas for improvement and disseminate good practice.
			• Peer observation of Science lessons in Year 8 to identify good practice and share expertise.
			• Review and update process for target setting in Key Stage 3 and identify pupils who need support to achieve their predicted grade.
4	1	Grade C or above 64%	ICT: Responsibility of lead ICT Science teacher (Mr. J. O'Flaherty)
			• Access in-service training to develop ICT, particularly in the use of interactive whiteboards as a learning resource. Arrange 2 days training for all Science staff through Mr. M. Lynch. (WELB Science and ICT adviser).
			• Develop ICT as a learning resource in the classroom. Package of PowerPoint presentations suitable for use with new Year 11 curriculum to be collated and made available for Science staff on Learning Resources so that each topic has at least one ICT based lesson. (Year 11)
			• Complete one ICT based Science investigations in Year 11.
			• Develop data base for monitoring, tracking and target setting for Year 12 pupils. Use this to identify pupils who are underachieving.
			• Develop a school-based Science website for e-learning. (ORACLE)
			Co-operative-learning: Responsibility of Co-operative-learning teacher (Mrs M. Mulhern)
			• Provide two in-service training days to develop Co-operative-learning as a teaching strategy.
			• Implement one Co-operative-learning strategy per topic in Year 11.
			Step-Up: Responsibility of lead Step-Up teacher (Mrs M. Mulhern)
			• Introduce Applied Double Award GCSE Science as an alternative at Key Stage 4. (Target: 12 pupils)
			• Provide one INSET days to support the introduction and delivery of Applied Double Award GCSE Science.
			• Host a Science careers day for our Year 11 pupils. Invite one Science speaker from F.E., H.E., local industry/business and the wider community. (Total: 5 speakers)
			• Organise two Science-based events during Science week including speakers from local industry and the "Thinking Science" Road show.
			STAR: Responsibility of lead Key Stage 4 STAR teacher (Mrs. R O' Donnell)
			• Introduce two interventions to support Year 12 target pupils. (E.g. Academic tutors, Easter revision weekend, individual / small group tuition).
			• Introduce one Key Stage 4 Science activity to Saturday School to improve performance.
			• Introduce the BA Crest Award scheme for Year 11 as an after-school activity to develop investigative and problem solving skills. (Target: 8 pupils)

		EFQM: Responsibility of lead EFQM teacher (Mrs M. Lindsay)
		• Science audit to review teaching styles at Year 12 and identify areas for improvement and disseminate good practice.
		• Peer observation of Science lessons in Year 11 to identify good practice and share expertise.
		• Develop target setting in Year 12 and identify pupils who need support to achieve their predicted grade.
2	Grade C or above 65%	ICT: Responsibility of lead ICT Science teacher (Mr. J. O'Flaherty)
		• Access in-service training to further develop ICT as a learning resource. Arrange one training day for all Science staff through Mr. M. Lynch. (WELB Science and ICT adviser).
		• Develop ICT as a learning resource in the classroom. Package of PowerPoint presentations suitable for use with new Year 12 curriculum to be collated and made available for Science staff on Learning Resources so that each topic has at least one ICT based lesson. (Year 12)
		• Complete one ICT based Science investigations in Year 12.
		• Develop database for monitoring, tracking and target setting for Year 11 pupils. Use this to identify pupils who are underachieving.
		• Continue to develop a school-based Science website for e-learning and extend its use to our partner schools.
		Co-operative-learning: Responsibility of Co-operative-learning teacher (Mrs M. Mulhern)
		• <sup>1</sup> / <sub>2</sub> day in-service training to further develop Co-operative-learning as a teaching strategy.
		• Implement one Co-operative-learning strategy per topic in Year 12.
		Step-Up: Responsibility of lead Step-Up teacher (Mrs M. Mulhern)
		• Develop Applied Double Award GCSE Science as an alternative at Key Stage 4. (Target: 15 pupils)
		• Provide one INSET day one additional member of staff to support the delivery of Applied Double Award GCSE Science.
		• Host a Science careers day for our Year 12 pupils. Invite one Science speaker from F.E, H.E, local industry/business and the wider community. (Total: 5 speakers)
		• Organise three Science-based events during Science week including speakers from local industry, the "Thinking Science" Road Show and Chemistry Challenge for Year 11 pupils.
		STAR: Responsibility of lead Key Stage 4 STAR teacher (Mrs. R O' Donnell)
		• Introduce two interventions to support Year 11 target pupils, e.g. academic tutors, Easter revision weekend, individual / small group tuition.
		Introduce two Key Stage 4 Science activities to Saturday School to improve performance.
		• Introduce the BA Crest Award scheme for Year 12 as an after-school activity to develop investigative and problem solving skills. (Target: 8 pupils)

		EFQM: Responsibility of lead EFQM teacher (Mrs M. Lindsay)
		• Science audit to review teaching styles at Year 11 and identify areas for improvement and disseminate good practice.
		• Peer observation of Science lessons in Year 12 to identify good practice and share expertise.
		• Develop target setting in Year 11 and identify pupils who need support to achieve their predicted grade
3	Grade C or above 66%	ICT: Responsibility of lead ICT Science teacher (Mr. J. O'Flaherty)
		• Access in-service training to further develop ICT as a learning resource. Arrange 1/2 day training for all Science staff through Mr. M. Lynch. (WELB Science and ICT adviser).
		• Revise and update ICT learning resources available in the department for Key Stage 4.
		• Complete one further ICT based Science investigation in Year 11. (Total: 2 per year)
		• Revise and update database for monitoring, tracking and target setting for Key Stage 4 pupils
		• Continue to develop a Science-based website for e-learning and extend its use to community groups. (ORACLE)
		Co-operative-learning: Responsibility of Co-operative-learning teacher (Mrs M. Mulhern)
		• <sup>1</sup> / <sub>2</sub> day in-service training to further develop Co-operative-learning as a teaching strategy.
		• Implement one further Co-operative-learning strategy per topic in Year 11. (Total: 2 per unit)
		Step-Up: Responsibility of lead Step-Up teacher (Mrs M. Mulhern)
		• Develop Applied Double Award GCSE Science as an alternative at Key Stage 4. (Target:18 pupils)
		• Provide one INSET day for one additional member of staff to support the delivery of Applied Double Award GCSE Science.
		• Host a Science careers day for our Year 11 and 12 pupils. Invite one Science speaker from F.E, H.E, local industry/business and the wider community. (Total: 8 speakers)
		• Organise four Science-based events during Science week including speakers from local industry, the "Thinking Science" Road Show and Chemistry Challenge for Year 11 and 12 pupils.
		STAR: Responsibility of lead Key Stage 4 STAR teacher (Mrs. R O' Donnell)
		• Introduce one further intervention to support Year 12 target pupils, e.g. academic tutors, Easter revision weekend, individual / small group tuition). (Total: 3 interventions)
		• Introduce three Key Stage 4 Science activities to Saturday School to improve performance.
		• Further develop the BA Crest Award scheme for Key Stage 4 as an after-school activity to develop investigative and problem solving skills. (Target: 10 pupils)
		EFQM: Responsibility of lead EFQM teacher (Mrs M. Lindsay)
		• Science audit to review teaching styles at Year 12 and identify areas for improvement and disseminate good practice.

			• Peer observation of Science lessons in Year 11 to identify good practice and share expertise.
			• Review and develop target setting in Year 12.
	4	Grade C or above 67%	ICT: Responsibility of lead ICT Science teacher (Mr. J. O'Flaherty)
			• Access in-service training to further develop ICT as a learning resource. Arrange 1/2 days training for all Science staff through Mr. M. Lynch. (WELB Science and ICT adviser).
			• Develop e-learning Science website. (ORACLE)
			• Complete one further ICT based Science investigations in Year 12. (Total: 2 per year)
			Continue to develop a school-based Science website for e-learning
			Co-operative-learning: Responsibility of Co-operative-learning teacher (Mrs M. Mulhern)
			• Provide a <sup>1</sup> / <sub>2</sub> day in-service training to further develop Co-operative-learning as a teaching strategy.
			• Implement one further Co-operative-learning strategy per topic in Year 12. (Total: 2 per unit)
			Step-Up: Responsibility of lead Step-Up teacher (Mrs M. Mulhern)
			• Develop Applied Double Award GCSE Science as an alternative at Key Stage 4. (Target: 20 pupils)
			• Provide one INSET day for one additional member of staff to support the delivery of Applied Double Award GCSE Science.
			• Host a Science careers day for our Year 11 pupils and pupils from our partner secondary schools. Invite one Science speaker from F.E, H.E, local industry/business and the wider community. (Total: 10 speakers)
			Organise five Science-based events during Science week including speakers from local industry, the "Thinking Science" Road Show, Chemistry Challenge for Year 11 and 12 pupils, Inter-schools Science challenge.
			STAR: Responsibility of lead Key Stage 4 STAR teacher (Mrs. R O' Donnell)
			• Introduce one further intervention to support target Year 11 pupils e.g. academic tutors, Easter revision weekend, individual / small group tuition). (Total: 3 interventions)
			• Introduce four Key Stage 4 Science activities to Saturday School to improve performance.
			• Further develop the BA Crest Award scheme for Key Stage 4 as an after-school activity to develop investigative and problem solving skills. (Target: 12 pupils)
			EFQM: Responsibility of lead EFQM teacher (Mrs M. Lindsay)
			• Science audit to review teaching styles at Year 11 and identify areas for improvement and disseminate good practice.
			• Peer observation of Science lessons in Year 12 to identify good practice and share expertise.
			• Review and develop target setting in Year 11.

# **PROVISION / UPTAKE**

Key Stage	Year	Target	Describe how you will implement these targets (use bullet points and short statements)
3	1	i)To increase the number of pupils achieving levels 5, 6 and 7 by 2%	<ul> <li>EFQM /STAR: Lead: Mrs M. Lindsay / Mr. M. Logue</li> <li>Introduce target setting in Year 10 and identify pupils who need support to achieve their predicted grade. Introduce interventions to support these pupils, e.g. extra revision classes, academic tutors, Easter revision weekend.</li> </ul>
		ii)To increase the number of ICT based Science lessons in Year 8 from 3% to 6%	<ul> <li>ICT: Lead: Mr J O' Flaherty</li> <li>Provide two in-service training days to further develop ICT as a learning resource (Use of interactive whiteboard)</li> <li>Employ an additional ICT technician to: <ol> <li>Support the teaching staff in using ICT (data logging equipment interactive whiteboards, PowerPoint presentations, personalised learning programmes for pupils)</li> <li>Purchase three interactive whiteboards and data projectors (fixed) for 3 Science classrooms</li> <li>Purchase ten laptop computers</li> <li>Purchase appropriate software</li> <li>Collate and develop a wide variety of high quality ICT resources for access by Science teachers on C2k Learning Resources</li> </ol> </li> <li>One ICT based Science lesson per topic to be fully integrated into Year 8 schemes of work.</li> </ul>
		iii)To increase the number of ICT based Science investigations from one to two in year 8.	<ul> <li>ICT: Lead: Mr J O' Flaherty</li> <li>Employ an additional ICT technician to support the use of data loggers in the classroom.</li> <li>Provide half a day INSET training to support the use of data loggers in the classroom.</li> </ul>
		iv) To develop a school-based Science website.	<ul> <li>ICT: Lead: Mr J O' Flaherty</li> <li>Access professional expertise to support the development of the website. (ORACLE)</li> </ul>

2	<ul><li>i) To increase the number of pupils achieving levels 5, 6 and 7 by a further 2%</li></ul>	<ul> <li>EFQM /STAR: Lead : Mrs M. Lindsay / Mr. M. Logue</li> <li>Introduce target setting in Year 9 and identify pupils who need support to achieve their predicted grades. Introduce interventions to support these pupils, e.g. extra revision classes, academic tutors, Easter revision weekend.</li> </ul>
	<ul> <li>ii) To increase the number of ICT based Science lessons from 3% to 6% in Year 9</li> </ul>	<ul> <li>ICT: Lead: Mr J O' Flaherty</li> <li>Provide further in-service training to develop ICT as a learning resource (1/2 day)</li> <li>Purchase three interactive whiteboards and data projectors (fixed) for 3 Science classrooms</li> <li>Purchase 10 laptop computers.</li> <li>Purchase appropriate software.</li> <li>Provide INSET training to support the use of data loggers.(1/2 day)</li> <li>Collate and develop an extensive range of high quality ICT resources for access by Science teachers on Learning Resources</li> <li>Fully integrate ICT into schemes of work for Year 9.</li> </ul>
	<ul> <li>iii) To increase the number of ICT based Science investigations from one to 2 in Year 9.</li> <li>iv) To further develop a schoolbased Science website. Extend its use to partner schools.</li> </ul>	<ul> <li>ICT: Lead: Mr J O' Flaherty</li> <li>Build up a bank of easy to access Science investigations</li> <li>Fully integrate ICT based investigations into schemes of work</li> <li>ICT: Lead: Mr J O' Flaherty</li> <li>Access professional expertise to support the development of the website (ORACLE)</li> <li>Meet with key Science staff in partner schools for suggestions for website content.</li> </ul>

	3/4	> To continue to increase the numb	per of pupils achieving levels 5, 6 and 7 by 2% each year.
		• To extend target setting into pupils through the Step-Up	other years identifying pupils who need support to achieve their predicted grade. Introduce interventions to support these and STAR programmes.
		> To continue to increase the numb	er of ICT based Science lessons by 3% each year.
		• Provide further in-service tra computers and ICT equipme	ining to develop ICT as a learning resource and continue to increase the number of interactive whiteboards, software, nt in the department.
		• Continue to develop an exte	nsive range of high quality ICT resources for access by Science teachers on C2K's Learning Resources
		> To continue to increase the num	ber of ICT based Science investigations in Key Stage 3 by one per year.
		• Continue to build up a bank	of easy to access Science investigations
		• Continue to integrate fully IC	CT based investigations into schemes of work
		Continue to develop a school-bas	sed Science website for e-learning. (ORACLE)
		Access professional expertise	e to support the development of the website
		• Meet with key personnel in a	community groups to provide training and suggestions for website.
4	1	i)To increase the number of pupils	Lead: Mrs M. Mulhern, H.O.D
		studying Double Award Science from 30% to 40%	• Introduce Double Award Applied Science for Year 11 pupils (Target 12 pupils)
			• Improve results at Key Stage 3 at levels 5, 6 and 7 by 2% through the interventions outlined above.
			• Develop the Step-Up programme in Key Stage 3 to raise an awareness of career choices /paths available to pupils who study Science. This will involve in-school talks by NWIFHE and U.U. and Science related careers visits.
			• Host a Science careers day for ourselves and partner schools. Invite speakers from F.E., H.E., local industry/business and the wider community.
		ii)To increase the number of ICT	ICT: Lead: Mr J O' Flaherty
		based Science lessons from 6% to 10%	• Provide in-service training to develop ICT as a learning resource (1day)
		0/0 00 10/0	Purchase 3 interactive whiteboards and data projectors (fixed) for 3 Science classrooms
			Purchase 10 laptop computers
			Purchase appropriate software.
			• Provide INSET training to support the use of data loggers (1/2 day)
			Collate and develop an extensive range of high quality ICT resources for access by Science teachers on C2K's Learning Resources
			• Fully integrate ICT into schemes of work for Year 11.

		iii) To introduce at least one ICT based Science investigation.	<ul> <li>ICT: Lead: Mr J O' Flaherty</li> <li>Employ an additional Science technician with a high level of ICT skills to support the use of data loggers in the classroom.</li> <li>Provide INSET training to support the use of data loggers in the classroom.</li> </ul>
		iv) To develop a school-based Science website.	<ul> <li>ICT: Lead: Mr J O' Flaherty</li> <li>Access professional expertise to support the development of the website (ORACLE)</li> </ul>
	2	iv) To increase the number of pupils studying Double Award Science from 40% to 45%	<ul> <li>Lead: Mrs M. Mulhern, H.O.D</li> <li>Increase participation rates in Applied Science by 5% through raising achievement at Key Stage 3</li> <li>Development of Step-Up programme</li> </ul>
		v) To increase the number of ICT based Science lessons from 10% to 15%	<ul> <li>ICT: Lead: Mr J O' Flaherty</li> <li>Provide further in-service training to develop ICT as a learning resource (1 day)</li> <li>Purchase 3 interactive whiteboards and data projectors (fixed) for 3 Science classrooms</li> <li>Purchase 10 laptop computers</li> <li>Purchase appropriate software.</li> <li>Provide further INSET training to support the use of data loggers (1/2 day)</li> <li>Collate and develop an extensive range of high quality ICT resources for access by Science teachers on C2K's Learning Resources</li> <li>Fully integrate ICT into schemes of work for Year 12.</li> </ul>
		vi) To increase the number of ICT based Science investigations from one to two per year.	<ul> <li>ICT: Lead: Mr J O' Flaherty</li> <li>Build up a bank of easy to access Science investigations</li> <li>Fully integrate ICT based investigations into schemes of work</li> </ul>
		<ul> <li>v) To further develop a school- based Science website. Extend its use to partner schools.</li> </ul>	<ul> <li>ICT: Lead: Mr J O' Flaherty</li> <li>Access professional expertise to support the development of the website (ORACLE)</li> <li>Meet with key Science staff in partner schools for suggestions for website content.</li> </ul>

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#### Target Describe how you will implement these targets (use bullet points and short Kev Year Stage statements) 3/4 i) To develop at least one To offer a Science / Engineering Applied GCSE at North West Institute of Further and Higher Education as an 1 • curricular link with F.E. alternative course at Key Stage 4. (Applied GCSE Engineering.) (Target: 10 pupils) ii) To increase the number of • To develop the 'Step-Up' link with the University of Ulster at Key Stage 4 by; curricular links with H.E. by introducing Careers talks to Year 12 pupils by the Step-Up team from U.U. (Magee Campus) and past pupils from 0 two. Step-Up Year 11 pupils attending a Science-based lecture at U.U. Magee Campus. 0 iii) To introduce one Science Science member of staff to lead one Science activity at Saturday school (based on Salter's Chemistry Club activity at Saturday school for activities) for Key Stage 3 pupils. Key Stage 3 pupils and one for Provide a Science study club for Key Stage 4 pupils ٠ Key Stage 4 pupils. iii) To introduce Science at A Science member of staff to introduce one Science activity at summer school. Theme: Healthy Bodies Summer school in Year 10. Invite pupils from our partner secondary school, Lisneal College, to the Science activity at summer school. • iv) To host a Science careers Step-Up co-ordinator, Mrs Mulhern, to liaise with Dr. Damien O Kane (U.U.), Mr D. Mc Feely (F.E.), key personnel convention with support from from local industries, business and the wider community to organise a Science careers convention to be hosted by St. F.E., H.E., local industry and Mary's. (Target: years 10 and 11). the wider community v) To increase the number of Organise a field trip to Magilligan for Year 9 Science educational visits Organise a visit for Year 8 pupils to annual Science Festival in the Calgagh Centre. ٠ from one to two at Key Stage 3 vi) To ensure every Key Stage 3 Organise a 'Thinking Differently' Science speaker for years 8, 9 and 10 pupil hears at least one Science Organise a Science careers convention for years 10 and 12 ٠ speaker. vii)To develop one locally based • Liaise with 'Lough's Agency' to develop a locally based Science theme for Year 8 pupils. Science theme.

#### ENRICHMENT – Through the Step-Up / Star Programmes. Lead: Mrs M. Mulhern, Mrs A. Kelly

	2	i) To increase the number of curricular links with F.E from one to two	• To introduce an Engineering Applied GCE at North West Institute of Further and Higher Education as an alternative course post 16
		ii) To increase the number of curricular links with H.E. from two to three.	<ul> <li>Continue to develop the 'Step-Up' link with the University of Ulster at Key Stage 4.</li> <li>introduce Careers talks to Year 11 pupils by the Step-Up team from U.U. (Magee Campus) and past pupils from Step-Up</li> <li>Year 11 pupils to attend a Science-based lecture at U.U. Magee Campus.</li> <li>Students from U.U. to be trained as mentors for Key Stage 4 pupils</li> </ul>
		iii) To increase participation rates in Science at Saturday School	• Invite pupils from our partner secondary schools (Key Stages 3 and 4) to participate in Science activities at Saturday School.
		iv) To extend participation in a Science careers convention, with support from F.E, H.E, local industry and the wider community	• Step-Up co-ordinator, Mrs Mulhern, to liaise with Dr. Damien O Kane (U.U.), Mr D. Mc Feely (F.E.), key personnel from local industry, business and the wider community to organise a Science careers convention to be hosted by St. Mary's. (Target: years 10, 11 and 12).
		v) Increase the number of Science educational visits from 2 to 3 at Key Stage 3	<ul> <li>Organise a field trip to Magilligan for Year 9</li> <li>Year 8 pupils to attend the Science Festival in the Calgagh Centre.</li> <li>All Year 10 pupils to visit W5 Science Centre</li> </ul>
		vi) To introduce one Science speaker to every Key Stage 4 pupil.	Organise 'Thinking Differently' Science speaker for years 11 and 12
		viii) To develop one locally based Science theme bringing the total in the department to two.	<ul> <li>Liaise with 'Environmental Health' department at Derry City Council to develop a local Science theme for Year 9 pupils.</li> </ul>
		ix) To work with our partner primary schools on one joint project	<ul> <li>Invite pupils from one partner primary school to work with our pupils on a joint project. (Environmental Theme – Recycling)</li> </ul>

3/4	> To continue to increase the number of curricular links with F.E.	
	• Introduce 'short' Science vocational courses as part of the sixth form enrichment programme.	
	➢ To continue to increase the number and quality of curricular links with H.E.	
	• Develop the student mentor programme using past Step-Up pupils at U.U. to mentor pupils at Key Stage 4 and post 16.	
	• Increase the number of initiatives with the university especially through the STAR programme.	
	To continue to increase participation rates in Science at Saturday School	
	• Involve pupils from our other partner primary schools (P.7) in Science at Saturday School.	
	> To extend participation in a Science careers convention for local secondary schools with support from F.E., H.E., local industry and the wider community	
	Increase number of Science educational visits at Key Stage 4	
	• Organise educational visits to U.U. and Science-based industries/businesses e.g. Perfecseal, St. Brendan's, B9, Seagate etc.	
	To continue to increase participation in Science at Summer School.	
	• Involve pupils from our other partner primary schools (P.7) in Science at Saturday School.	
	To develop local Science themes, e.g. liaise with Creggan Country Park to develop a local Science theme for Year 10 pupils and with the Old Library Trust to develop a local Science theme for Year 11 pupils.	
	> To work with our partner secondary schools on joint projects (Target: 3)	
	> To work with our partner primary schools on joint projects (Target: 3)	

#### POST-16

Focus	Year	Target	Describe how you will implement these targets (use bullet points and short statements)
Attainment	1	i) Increase attainment (grades A – C) at AS by 5%.	<ul> <li>Participation in the U.U. 'Step-Up' Programme with 4 local secondary schools.(St. Josephs, Lisneal, St. Cecilia's, St. Brigid's)</li> <li>Science staff from the university will work closely with these pupils throughout their lower sixth year at St Mary's. They will have the opportunity to:</li> <li>participate in tutoring sessions at the university</li> <li>undertake both lectures and practical work at the university</li> <li>participate in a Science summer school</li> <li>access the university library and university ICT facilities</li> <li>be supported individually by a mentor for specific units.</li> <li>design and deliver a PowerPoint presentation based on two units of study to a public audience at the university of Ulster.</li> </ul>
		ii) Increase attainment (grades A – C) from AS to A2 level by 5%.	<ul> <li>Participation in the U.U. 'Step-Up' Programme with 4 local secondary schools.(St. Josephs, Lisneal, St. Cecilia's, St. Brigid's)</li> <li>Science staff from the university will work closely with these pupils throughout their upper sixth year at St Mary's. They will have the opportunity to:</li> <li>participate in tutoring sessions</li> <li>undertake both lectures and practical work at the university</li> <li>access the university library and university ICT facilities</li> <li>be supported individually by a mentor for specific units.</li> <li>design and deliver a PowerPoint presentation based on one unit of study to a public audience at the university of Ulster.</li> </ul>
		iii) Increase the average additional UCAS points achieved through Step Up by 5.	<ul> <li>Science staff from the university will work closely with these pupils throughout their upper sixth year at St Mary's. They will have the opportunity to:</li> <li>participate in tutoring sessions</li> <li>undertake both lectures and practical work at the university</li> <li>access the university library and university ICT facilities</li> <li>be supported individually by a mentor for specific units.</li> <li>design and deliver a PowerPoint presentation based on one unit of study to a public audience at the university of Ulster.</li> </ul>

2	i) Increase attainment (grades A – C) at AS by 5%.	<ul> <li>Participation in the U.U. 'Step-Up' Programme with 4 local secondary schools.(St. Josephs, Lisneal, St. Cecilia's, St. Brigid's)</li> <li>Science staff from the university will work closely with these pupils throughout their lower sixth year at St Mary's. They will have the opportunity to:</li> <li>participate in tutoring sessions at the university</li> <li>undertake both lectures and practical work at the university</li> <li>participate in a Science summer school</li> <li>access the university library and university ICT facilities</li> <li>be supported individually by a mentor for specific units.</li> <li>design and deliver a PowerPoint presentation based on two units of study to a public audience at the university of Ulster.</li> </ul>		
	ii) Increase attainment (grades A – C) from AS to A2 level by 5%.	<ul> <li>Participation in the U.U. 'Step-Up' Programme with 4 local secondary schools.(St. Josephs, Lisneal, St. Cecilia's, St. Brigid's)</li> <li>Science staff from the university will work closely with these pupils throughout their upper sixth year at St Mary's. They will have the opportunity to:</li> <li>participate in tutoring sessions</li> <li>undertake both lectures and practical work at the university</li> <li>access the university library and university ICT facilities</li> <li>be supported individually by a mentor for specific units.</li> <li>design and deliver a PowerPoint presentation based on one unit of study to a public audience at the university of Ulster.</li> </ul>		
	iii) Increase the average additional UCAS points achieved through Step Up by 5.	<ul> <li>Science staff from the university will work closely with these pupils throughout their upper sixth year at St Mary's. They will have the opportunity to:</li> <li>participate in tutoring sessions</li> <li>undertake both lectures and practical work at the university</li> <li>access the university library and university ICT facilities</li> <li>be supported individually by a mentor for specific units.</li> <li>design and deliver a PowerPoint presentation based on one unit of study to a public audience at the university of Ulster.</li> </ul>		
3/4	• Continue to develop U.U.	• Continue to develop U.U. 'Step-Up' Programme with 4 local secondary schools. – team teaching, joint projects		
	• Continue to access expertis	se and resources at U.U Magee and Coleraine campuses		
	• Continue to increase attain	ment (grades A – C) at AS		
	• Continue to increase attain	ment (grades $A - C$ ) at $A2$		
	• Continue to increase the av	rerage additional UCAS points achieved through Step Up.		
	• Establish links with the ne	w cluster of Step Up schools in Belfast.		
	• Continue to develop a U.U	. mentoring programme for sixth year pupils.		

Provision/ take-up	1	<ul> <li>i) Increase the number of pupils studying Double Award Applied GCE Science from 18% to 20%.</li> <li>ii) Provide access to tutoring sessions at the university (2 x 2)</li> <li>iii) Provide access to both lectures and practical work at the university (20 x 2 )</li> </ul>	<ul> <li>Raise standards of achievement at Key Stage 4 through the development of the 'Step-Up' programme</li> <li>Increase the number of pupils studying Double Award Science at GCSE by offering Applied Science as an option at Key Stage 4.</li> <li>Development of enrichment programme (educational visits / speakers)</li> <li>Science careers convention for Year 12</li> <li>Through the Step Up programme</li> <li>Through the Step Up programme</li> </ul>
		iv) Provide lower sixth with access to a Science summer school (5days)	Through the Step Up programme
		university library and ICT facilities	Through the Step Up programme
		vi) Provide individual pupil support by a mentor for specific units. (5 x 2)	Through the Step Up programme
		vii) Provide opportunities to design and deliver a PowerPoint presentation based on units of study to a public audience at the university of Ulster.(2)	• Through the Step Up programme
	2	i) Increase the number of pupils studying Double Award Applied GCE Science from 20% to 22%.	<ul> <li>Development of Step-Up programme at Key Stage 3</li> <li>Development of enrichment programme (educational visits / speakers)</li> <li>Science careers convention Years 11 and 12.</li> <li>Increase the number of pupils studying Double Award Science at GCSE.</li> <li>Raise standards of achievement at GCSE through the development of the Step-Up and STAR programmes.</li> <li>Raise standards of achievement at Key Stage 3 through the development of the Step-Up and STAR programmes.</li> </ul>
		ii) Continue to provide access to tutoring sessions at the university (3 x 2)	• Through the Step Up programme

iii) Continue to provide access to both lectures and practical work at the university (22 x 2)	• Through the Step Up programme
iv) Continue to provide lower sixth with access to a Science summer school (6 days)	• Through the Step Up programme
v) Continue to provide access to the university library and ICT facilities	• Through the Step Up programme
vi)Continue to provide individual pupil support by a mentor for specific units. (6 x 2)	• Through the Step Up programme
vii) Continue to provide opportunities to design and deliver a PowerPoint presentation based on units of study to a public audience at the university of Ulster. (3)	• Through the Step Up programme
<b>3/4</b> • Continue to increase particip	ation in GCE Applied Science. (Target: 24%)
• Increase participation in Scie	nce through short Science-based 'taster' courses offered at the NWIFHE through a sixth year enrichment programme.(2)
• Continue to provide access t	o tutoring sessions at the university (5 x 2)
• Continue to provide access to	b both lectures and practical work at the university (24 x 2)
Continue to provide lower size	xth with access to a Science summer school (8 days)
<ul><li>Continue to provide access to</li><li>Continue to provide individu</li></ul>	the university library and ICT facilities al pupil support by a mentor for specific units. (8 x 2)
• Continue to provide opportun Ulster. (4)	nities to design and deliver a PowerPoint presentation based on units of study to a public audience at the university of

#### **OBJECTIVE C: Whole School Improvement**

To raise standards of achievement in all subjects through the use of Co-operative-learning, ICT, the Step-Up and STAR Programmes and the EFQM model. Co-operative-learning is an innovative approach to learning in the classroom in that it promotes not just academic skills but social skills as well and promotes personalised learning based on individual needs. Research findings from Republic of Ireland, Scotland, Canada and New Zealand have shown that this approach raises standards particularly among lower achieving pupils. The Science department will become experts in the use of Co-operative-learning strategies which will be adopted by all departments in the school to raise standards of achievement.

- The Science department will develop expertise in the use of ICT not only for raising standards within the classroom through the introduction of interactive whiteboards and learning packages such as Boardworks but also through the use of ICT for developing pupil profiles, assessment, tracking pupil progress and target setting. ICT will also be used to develop collaborative-learning for teachers and pupils using ORACLE as outlined in e2s. The expertise thus developed within the department will be disseminated throughout the school through in service training and school meetings.
- The Science department will further develop the use of the EFQM management framework, the most systematic framework for organisational development in Europe, and share their expertise in the use of the model with all middle leaders within the school to bring about improvement and raise standards of achievement at whole school level.
- The STAR programme will provide pupils with a series of interventions to raise standards of achievement e.g. Saturday School, University Summer School

#### ATTAINMENT

Key Stage	Year	Target	Implementation
3	1	<ul> <li>a) English 74% level 5+ KS3</li> <li>b) Maths 52% level 5+ KS3</li> <li>c) Science 56% level 5+ KS3</li> <li>CAT scores</li> <li>To improve overall pupil standard age score by 0.1</li> </ul>	<ul> <li>Co-operative-learning: Lead: Strategy Group</li> <li>All Year 8 pupils will have access to the Sentinus skills programme to promote the skills for Co-operative-learning.</li> <li>Ensure at least one lesson per topic involves Co-operative-learning strategies.</li> <li>All pupils will be involved in the setting of academic objectives and in reviewing them for all lessons. Co-operative-learning lessons will also involve the setting and review of social objectives.</li> <li>All learning needs will be identified and strategies put in place to promote personalised learning incorporating LE.Ps</li> <li>ICT: Lead: Mr J O'Flaherty</li> <li>One whiteboard, data projector and suitable software packages will be purchased for the Maths, English and Special Needs departments and training will be provided by the Science department for their use in the classroom.</li> <li>Use ICT to develop pupil profiles, manage assessment, track pupil progress and set targets for Year 8.</li> <li>All pupils will have access to computers through the taught curriculum, computer club, homework club and Saturday school.</li> <li>STAR: Lead: Mr S A Kelly</li> <li>Pupils will nove access to Saturday School, homework club, external speakers and a range of extra-curricular activities e.g. Sunrise Club.</li> <li>EFQM: Lead: Mrs M. Lindsay</li> <li>Training will continue in the use of the EFQM and LLP models for all middle leaders.</li> <li>Attendance officer to monitor and review attendance</li> </ul>

2	b) CAT scores	Co-operative-learning: Lead: Strategy Group
	To improve the overall pupil standard age score by 0.1	• All Year 8 and 9 pupils will have access to the Sentinus skills programme to promote the skills for Co-operative- learning.
		• Ensure that at least 2 lessons per topics involve Co-operative-learning strategies.
		• All pupils will be involved in the setting of academic objectives and in reviewing them for all lessons. Co- operative-learning lessons will also involve the setting and review of social objectives.
		• All learning needs will be identified and strategies put in place to promote personalised learning incorporating I.E.Ps
		ICT: Lead: Mr J O'Flaherty
		• One whiteboard, projector and suitable software packages will be purchased for the Geography, Technology and History departments and training will be provided by the Science department for their use in the classroom.
		• Use ICT to develop pupil profiles, assessment, track pupil progress and set targets for years 8 and 9.
		• All pupils will have access to computers through the taught curriculum, computer club, homework club and Saturday school.
		STAR: Lead: Mrs A. Kelly
		• Pupils will have access to Saturday School, homework club, external speakers and a range of extra-curricular activities including one new initiative (literacy initiative)
		EFQM: Mrs M. Lindsay
		• Training will continue in the use of the EFQM and I.I.P models for all middle leaders and School Council members.
		• Attendance officer to monitor and review attendance

3	c) CAT scores	Co-operative-learning: Lead: Strategy Group
	To improve the overall pupil standard age score by 0.1	• All Year 8, 9 and 10 pupils will have access to the Sentinus skills programme to promote the skills for Co- operative-learning.
		• Ensure at least 3 lessons per topic involve Co-operative-learning strategies.
		• All pupils will be involved in the setting of academic objectives and in reviewing them for all lessons. Co- operative-learning lessons will also involve the setting and review of social objectives.
		• All learning needs will be identified and strategies put in place to promote personalised learning incorporating I.E.Ps
		ICT: Lead Mr. J O' Flaherty
		• One whiteboard, projector and suitable software packages will be purchased for the Music, Religion and Languages departments and training will be provided by the Science department for their use in the classroom.
		• Use ICT to develop pupil profiles, assessment, track pupil progress and set targets for years 8, 9 and 10.
		• All pupils will have access to computers through the taught curriculum, computer club, homework club and Saturday school.
		STAR: Lead: Mrs A. Kelly
		• Pupils will have access to Saturday School, homework club, external speakers and a range of extra-curricular activities including one new initiative (numeracy).
		EFQM: Lead Mrs M. Lindsay
		• Training will continue in the use of the EFQM and I.I.P models for all teaching staff and the School Council
		Attendance officer to monitor and review attendance

	4	d) CAT scores	Co-operative-learning: Lead: Strategy Group
		To improve the overall pupil standard age score by 0.1	• Review and develop the Sentinus skills programme to promote the skills for Co-operative-learning.
			• Ensure at least four lessons per topic involve Co-operative-learning strategies.
			• All pupils will be involved in the setting of academic objectives and in reviewing them for all lessons. Co- operative-learning lessons will also involve the setting and review of social objectives.
			• All learning needs will be identified and strategies put in place to promote personalised learning incorporating I.E.Ps
			ICT: Lead Mr. J O' Flaherty
			• One whiteboard, projector and suitable software packages will be purchased for the Home Economics, Business Studies and ICT departments and training will be provided by the Science department for their use in the classroom.
			• Review and develop the use ICT to develop pupil profiles, assessment, track pupil progress and set targets for years 8, 9 and 10.
			• All pupils will have access to computers through the taught curriculum, computer club, homework club and Saturday school.
			STAR: Lead: Mrs A. Kelly
			• Pupils will have access to Saturday School, homework club, external speakers, orientation visits to university, university summer school and a range of extra-curricular activities.
			EFQM: Lead Mrs M. Lindsay
			• Training will continue in the use of the EFQM and I.I.P models for all teaching staff, the School Council, support staff and 1 feeder primary school.
			Attendance officer to monitor and review attendance

4	1	Realistic target; 5+ A* - C grades (as predicted by CAT scores): 40%	Co-operative-learning: Lead: Strategy Group
			• Development of pupils as independent learners through Co-operative-learning strategies.
		Aspirational target: 61%	• Ensure at least one topic per week involves Co-operative-learning strategies.
			• All pupils will be involved in the setting of academic objectives and in reviewing them for all lessons. Co- operative-learning lessons will also involve the setting and review of social objectives.
		To increase the average capped score by 0.2.	• All learning needs will be identified and strategies put in place to promote personalised learning incorporating I.E.Ps
			• Provide access to an additional vocational course in partnership with the NWIFHE (Engineering)
			ICT: Lead Mr. J O' Flaherty
			• One whiteboard, data projector and suitable software packages will be purchased for the Maths, English and Special Needs departments and training will be provided by the Science department for their use in the classroom.
			• Use ICT to develop assessment including tracking pupil progress, pupil profiles and target setting for Year 11.
			• Develop pupil expertise in the use of ICT packages, such as PowerPoint, for Co-operative-learning.
			• Ensure all pupils will have access to computers through the taught curriculum, computer club, homework club and Saturday school.
			STAR: Lead: Mrs A. Kelly
			• Pupils will, through the STAR programme, have access to:
			individual learning plans with short term targets, study weekends, orientation visits to university, Easter study week, Saturday school, individual tuition, subject specific tuition, academic tutorial system, study skills courses, targeted school assemblies for raising standards of achievement, wide range of subject clubs and societies, careers programme, homework club, external speakers and a range of extra-curricular activities e.g. Sunrise club.
			Attendance officer to monitor and review attendance
			EFQM: Lead Mrs M. Lindsay
			• Training will continue in the use of the EFQM and I.I.P models for all middle leaders. The EFQM Model will be used for self assessment and continuous improvement.
			• As part of the implementation of EFQM, Prof. Peter Daws (formerly Dean of the Faculty of Education at U.U.) will provide an annual analysis of examination performance which will be used by Heads of Department to improve standards of performance at G.C.S.E and post 16.
			• The Balanced Scorecard will be used to monitor performance against targets and benchmarks.

2	Realistic target 5+ A* - C grades	Co-operative-learning: Lead: Strategy Group
	(as predicted by CAT scores): 35%	• Further development of pupils as independent learners through Co-operative-learning strategies.
	Aspirational target: 60%	• Ensure at least two lessons per topic involve Co-operative-learning strategies.
		• All pupils will be involved in the setting of academic objectives and in reviewing them for all lessons. Co- operative-learning lessons will also involve the setting and review of social objectives.
	score by a further 0.2.	• All learning needs will be identified and strategies put in place to promote personalised learning incorporating I.E.Ps
		• Further develop access to vocational courses in partnership with the NWIFHE (Engineering/ Catering/ Hairdressing)
		ICT: Lead Mr. J O' Flaherty
		• One whiteboard, data projector and suitable software packages will be purchased for the Geography, Technology and History departments and training will be provided by the Science department for their use in the classroom.
		• Use ICT to develop pupil profiles, assessment, track pupil progress and set targets for Year 12.
		• Further develop pupil expertise in use of ICT packages such as PowerPoint, for Co-operative-learning.
		• Ensure all pupils have access to computers through the taught curriculum, computer club, homework club and Saturday school.
		STAR: Lead: Mrs A. Kelly
		• Pupils will, through the STAR programme continue to have access to:
		individual learning plans with short term targets, study weekends, orientation visits to university, Easter study week, Saturday school, individual tuition, subject specific tuition, academic tutorial system, study skills courses, targeted school assemblies for raising standards of achievement, wide range of subject clubs and societies, careers programme, homework club, access to external speakers and a range of extra-curricular activities.
		Attendance officer to monitor and review attendance
		EFQM: Lead Mrs M. Lindsay
		• Training will continue in the use of the EFQM and I.I.P models for all middle leaders and the School Council. The EFQM Model will continue to be used for self assessment and continuous improvement.
		• As part of the implementation of the EFQM framework, Prof. Peter Daws will continue to provide an annual analysis of examination performance which will continue to be used by Heads of Department to improve standards of performance at G.C.S.E and post 16.
		• The Balanced Scorecard will be further developed to monitor progression against targets and benchmarks.

3	Realistic target 5+ A* - C grades (as predicted by CAT scores): 47%	Co-operative-learning: Lead: Strategy Group
		• Further development of pupils as independent learners through Co-operative-learning strategies.
	Aspirational Target: 62%	• Ensure at least three lessons per topic involve Co-operative-learning strategies.
	To increase the average capped score by a further 0.2.	• All pupils will be involved in the setting of academic objectives and in reviewing them for all lessons. Co- operative-learning lessons will also involve the setting and review of social objectives.
		• All learning needs will be identified and strategies put in place to promote personalised learning incorporating I.E.Ps
		• Further develop access to vocational courses in partnership with the NWIFHE (Engineering/ Catering/ Hairdressing/ Beauty Therapy)
		ICT: Lead Mr. J O' Flaherty
		• One whiteboard, data projector and suitable software packages will be purchased for the Music, Languages and Religion departments and training will be provided by the Science department for their use in the classroom.
		• Use ICT to further develop pupil profiles, assessment, track pupil progress and set targets for years 11 and 12
		• Further develop pupil expertise in use of ICT packages such as PowerPoint for Co-operative-learning.
		• Ensure all pupils will have access to computers through the taught curriculum, computer club, homework club and Saturday school.
		STAR: Lead: Mrs A. Kelly
		• Pupils will, through the STAR programme continue to have access to:
		individual learning plans with short term targets, study weekends, orientation visits to university, Easter study week, Saturday school, individual tuition, subject specific tuition, academic tutorial system, study skills courses, targeted school assemblies for raising standards of achievement, wide range of subject clubs and societies, careers programme, homework club, external speakers and a range of extra- curricular activities.
		Attendance officer to monitor and review attendance
		EFQM: Lead Mrs M. Lindsay
		• Training will continue in the use of the EFQM and I.I.P models for all middle leaders and the School Council. The EFQM Model will continue to be used for self assessment and continuous improvement.
		• As part of the implementation of EFQM, Prof. Peter Daws will continue to provide an annual analysis of examination performance which will continue to be used by Heads of Department to improve standards of performance at G.C.S.E and post 16.
		• The Balanced Scorecard will be further developed to monitor progression against targets and benchmarks.

4	Realistic target 5+ A* - C grades (as predicted by CAT scores): 41%	Co-operative-learning: Lead: Strategy Group
		• Further development of pupils as independent learners through Co-operative-learning strategies.
	Aspirational target: 60%	• Ensure at least 4 lessons per topic involve Co-operative-learning strategies.
	To increase the average capped score by a further 0.2.	• All pupils will be involved in the setting of academic objectives and in reviewing them for all lessons. Co- operative-learning lessons will also involve the setting and review of social objectives.
		• All learning needs will be identified and strategies put in place to promote personalised learning incorporating I.E.Ps
		Further develop access to vocational courses in partnership with the NWIFHE (Engineering/ Catering/ Hairdressing/ Beauty Therapy/ Food Hygiene)
		ICT: Lead Mr. J O' Flaherty
		• One whiteboard, data projector and suitable software packages will be purchased for the Home Economics, Business Studies and ICT departments and training will be provided by the Science department for their use in the classroom.
		• Use ICT to further develop pupil profiles, assessment, track pupil progress and set targets for years 11 and 12.
		• Further develop pupil expertise in the use of ICT packages such as PowerPoint for Co-operative-learning.
		• All pupils will have access to computers through the taught curriculum, computer club, homework club and Saturday school.
		STAR: Lead: Mrs A. Kelly
		• Pupils will, through the STAR programme continue to have access to:
		individual learning plans with short term targets, study weekends, orientation visits to university, Easter study week, Saturday school, individual tuition, subject specific tuition, academic tutorial system, study skills courses, targeted school assemblies for raising standards of achievement, , wide range of subject clubs and societies careers programme, homework club, external speakers and a range of extra-curricular activities.
		Attendance officer to monitor and review attendance
		EFQM: Lead Mrs M. Lindsay
		• Training will continue in the use of the EFQM and I.I.P models for all middle leaders and the School Council. The EFQM Model will continue to be used for self assessment and continuous improvement.
		• As part of the implementation of EFQM, Prof. Peter Daws will continue to provide an annual analysis of examination performance which will continue to be used by Heads of Department to improve standards of performance at G.C.S.E and post 16.
		• The Balanced Scorecard will continue to be developed to monitor progression against targets and benchmarks.

# C2 (Cont)

### SHARING BEST PRACTICE IN TEACHING AND LEARNING

Key Stage	Year	Target	Implementation Lead: Strategy Group , Mrs M. Lindsay
All	1	i) Four departments including Science, Religion, Geography and Maths and will share best practice in Co-operative- learning.	Four staff members will liaise with co-ordinators of Co-operative-learning initiative in North Lancashire to bring expertise back to St. Mary's and form a lead team. All classrooms will be fitted with objectives boards and all staff trained in at least three Co-operative-learning strategies.
		<ul><li>ii) Three departments (Maths, English and Special Needs) will use interactive whiteboards as a learning resource in their subjects.</li></ul>	The ICT co-ordinator will identify best practice in the use of whiteboards and ensure best practice is shared. Interactive whiteboards will be provided to three departments and listed staff trained in their use.
		iii) An annual survey of pupils and teachers on the quality of teaching and learning.	The school improvement committee will analyse the results of the surveys and set up improvement teams to ensure the sharing and development of good practice arising from the surveys

	2	<ul> <li>i) Four departments including History, English, P.E and Home Economics will share best practice in Co-operative- learning.</li> </ul>	The lead team will continue to liaise with co-ordinators of Co-operative-learning initiative in North Lancashire to bring experience back to St. Mary's. All classrooms will be fitted with objectives boards and all staff trained in at least three Co-operative-learning strategies.
		<ul><li>ii) Three departments (Technology, Geography and History) will use interactive whiteboards as a learning resource in their subjects.</li></ul>	The ICT co-ordinator will identify best practice in the use of whiteboards and will ensure best practice is shared. Interactive whiteboards will be provided to three departments and listed staff trained in their use.
		<ul> <li>iii) Self evaluation of teaching and learning within departments using the EFQM framework to be carried out in three departments including RE, Technology and Geography.</li> </ul>	Training for R.E. Technology and Geography staff on the nine criteria of the EFQM Model and self evaluation tools and techniques.
	3/4	<ul> <li>Departments will continue</li> <li>The ICT co-ordinator will</li> <li>Interactive whiteboards w</li> <li>Self evaluation of teaching</li> </ul>	e to share best practice in Co-operative-learning. I continue to identify best practice in the use of whiteboards and will ensure best practice is shared. Fill be provided to a further three departments and staff trained in their use. g and learning within departments using EFQM framework to be carried out in all departments.

#### **BUSINESS / EMPLOYER INVOLVEMENT**

Key Stage	Year	Target	Implementation Lead: Mrs G. Doherty
All	1	<ul> <li>i) Host a "Back to School" day for local employers. Target: 8 employers.</li> </ul>	• School improvement committee will issue invitations by letter / e mail to a range of employers. Pupil mentors will be trained to facilitate employers during their visit. Proposed date: Feb. 07.
		ii) Hold one session of "Adopt a Class"	• The Head of Business Studies, in partnership with FOSEC, will arrange this.
		iii) Involve at least 40 employers in work placement programmes.	• The Head of Careers will contact local employers. Pupils will be trained for work experience through the 'Learning for Life Programme'. Employers will be made aware of the aims and objectives of work experience by the Head of Careers working in partnership with the Careers service.
		iv) Involve local employers in giving talks to KS 4 pupils. (Target 6)	<ul> <li>The Head of Careers, working in partnership with FOSEC, will arrange for suitable speakers for careers / PSE lessons.</li> </ul>

	2	i) Set up a focus group of 3 key employers to advise the school on improving standards in numeracy.	• A Vice Principal will take responsibility for the setting up of this focus group in partnership with the numeracy co co-ordinator. The V.P will be responsible for the implementation of outcomes.			
		<ul><li>ii) Host a 'Back to School' day for local employers.</li><li>Target: 9 employers.</li></ul>	• School improvement committee will issue invitations by letter / e mail to a range of employers. Pupil mentors will be trained to facilitate employers during their visit. Proposed date: Feb. 07.			
		ii) Hold two sessions of 'Adopt a Class'	• The Head of Business Studies, in partnership with FOSEC, will arrange this.			
		iv) Involve at least 45 employers in work placement programmes.	• The Head of Careers will contact local employers. Pupils will be trained for work experience through the 'Learning for Life Programme'. Employers will be made aware of the aims and objectives of work experience by the Head of Careers working in partnership with the Careers service.			
		v Hold a Role Model week involving local employers across a range of career paths. (Target:15)	• The post holder with responsibility for this area who will invite female employers, especially past pupils, to participate in Role Model week. The role models will conduct seminars with groups of pupils throughout the week.			
• vi) Ensure every pupil has had an industrial visit by the end of Key Stage 4.		vi) Ensure every pupil has had an industrial visit by the end of Key Stage 4.	• The Head of Careers in partnership with FOSEC will ensure every pupil has had the opportunity to participate in a visit to an employer's workplace by the end of Key Stage 4.			
	3/4	Continue to involve the focus group of 3 key employers to advise the school on improving standards in literacy, numeracy and ICT.				
		➢ Host a 'Back to School' day for lo	ocal employers. (Targets 11 employers./ 13 employers)			
		➢ Hold sessions of "Adopt a Class"	sessions of "Adopt a Class". (Target 4 classes)			
		Involve employers in work placement programmes. (Target 50 / 55 employers)				
		Involve employers in giving talks	to pupils. (Target: 8/10 employers)			
		Ensure every pupil has had the op	portunity to participate in an industrial visit by the end of Key Stage 3.			
		➢ Hold a Role Model week in year ∠	involving local employers across a range of career paths.(Target 20)			

# C3. School plan: Brief outline of intended use of Year 1 (2006/07 financial year) specialist school annual grant

Item	Cost (£)
Additional staff resources (teaching staff)	
One full time Science teacher	£30,000
Additional staff resources (non-teaching staff)	
One full time ICT technician	£17,000
Staff development	
Co-operative-learning	£8,000
ICT	
Equipment and materials in specialist subjects	
Resource Boxes	£3000
Consumables	
Other	
Competitions	£5,000
Careers Convention	
Speakers	
Transport	
Extra tuition	
Saturday School	
Total	£63,000

# SECTION D : COMMUNITY PLAN

# D1. Community plan : audit

# b Partnerships with other schools

Partner School:- Holy Child Primary School	Partnership - Areas for development
Partnership strengths : sharing in activities	Opportunities for development with all partner primary schools
<ul> <li>Access to St Mary's Saturday School and Summer school in Literacy/Numeracy</li> <li>Literacy initiatives e.g. story-telling/paired reading</li> <li>Numeracy initiatives</li> </ul>	Access to specialist Science Centre
<ul> <li>Joint homework club</li> <li>Joint breakfast/reading club</li> </ul>	• Specialist teaching expertise in Science/team teaching
Sports' tournaments/induction days	Science labs available in May/June each year
Partner School:- St. Anne's Primary School	Joint Science projects
Partnership strengths : sharing in activities • Technology project	Science Saturday school
<ul> <li>Netball tournament</li> <li>Saturday School</li> </ul>	• Senior pupils as Science mentors to primary school pupils
<ul> <li>Games of yester-year</li> <li>Spooker prize/Attendance at school show</li> </ul>	• Staff training in Science
<ul> <li>Sharing of expertise re. Investors in People and EFQM</li> </ul>	• Science action days with primary and secondary pupils
Partner School:- St. Eithne's Primary School	Help with revised primary Science curriculum
Partnership strengths : sharing in activities	• Science boxes(resources)
<ul><li>Induction programme</li><li>Mathematics trail</li></ul>	Developmental days for Science technicians
<ul><li>Netball tournament</li><li>Attendance at school show</li></ul>	Joint Science competitions
	Science awareness courses for parents of primary school pupils
Partner School:- Holy Family Primary School	• Training of primary school parents to help in Science classes
Partnership strengths: sharing activities	Careers in Science programmes
<ul> <li>Netball tournament</li> <li>Induction days</li> <li>Mathematics trail</li> </ul>	GCSE Science for parents
<ul> <li>Mathematics trail</li> <li>Participation in school show</li> <li>Games of yester-year</li> </ul>	• Help in planning Science lessons

Partner School:- St. Patrick's Primary School         Partnership strengths: sharing activities         • Netball tournament         • Induction days         • Mathematics trail         • Participation in school show         • Games of yester-year         • Sharing of resources         • Spooker prize	<ul> <li>Step-Up Science for primary schools</li> <li>Help with Open Days</li> <li>Primary schools participating in Science role - model weeks</li> <li>Co-operative-learning</li> <li>Provision of whiteboards</li> <li>Training in ICT packages including use of interactive whiteboards.</li> <li>ICT initiatives through ORACLE</li> </ul>
<ul> <li>Partner School:- St Joseph's Secondary School Partnership strengths</li> <li>Step-Up Science</li> <li>Sharing of resources</li> <li>Sixth form sharing of other courses besides Step-Up Science e.g. Physical Education /Business Studies</li> <li>Pupil participation in school shows</li> <li>Sharing of management expertise</li> <li>Benchmarking</li> </ul> Partner School:- Lisneal College Partnership strengths Involvement in STAR Programme including attendance at joint Summer School at the University of Ulster : Magee Campus, joint courses, joint field trips Involvement in Sturday School Joint involvement in Duke of Edinburgh/President's Award scheme Sharing of management expertise	<ul> <li>Opportunities for development with all partner secondary schools</li> <li>KS3 &amp; KS4 – Joint planning for the new curriculum</li> <li>Sharing of resources and experience in Science</li> <li>Team teaching across partner schools</li> <li>Development of personalised learning (Co-operative-learning)</li> <li>Raising the profile of Science in Lisneal and St Joseph's</li> <li>Developing Step-Up Science at KS3 and KS4</li> <li>Involvement of partner schools in St Mary's Annual Science Week</li> <li>Access to specialist resources e.g. specialist contacts</li> <li>Dedicated website</li> <li>Professional training of teaching staff</li> <li>Training and sharing of technicians</li> <li>Training of parents to help in Science and other classrooms</li> <li>Awareness of Science courses for parents</li> <li>Sharing of Careers expertise especially in the specialist area for pupils, their parents and staff.</li> <li>Post 16 : In partnership with the North West Institute of Further and Higher Education and the University of Ulster, to increase the numbers of pupils participating in Step-Up Science</li> </ul>

# Support for identified community groups

Community Group:- Parents	
Existing provision	Areas for development
Parents working in classrooms alongside teachers, training courses (Open College	"Science is Fun" courses for parents
Network, in conjunction with NWIFHE), for parents working in classrooms, parents	Careers Awareness in Science - information day for parents
studying for GCSE and other courses, parents participating in school committees e.g.	Specific training for parents helping in Science classrooms
finance committee, parents actively contributing in the classroom e.g. careers' talks,	Opportunity to study GCSE Science courses and other related courses in partnership with NWIFHE.
parental involvement in school policies/procedures, Self-esteem courses, "Take Your	
Parent to School Day', parents helping at school events e.g. Open Day	
Community Group:- North West Institute Of Further and	
Higher Education	
Existing provision	Areas for development
Partnership in provision of vocational courses in Beauty Therapy, Hairdressing,	Step-Up in conjunction with University of Ulster/Additional applied courses e.g. Applied Art/
Catering, VCE Health and Social Care, Training for Parent's support group, providing	Engineering courses for parents in Science related areas/Taster Science courses/Assistance with the
access to training course for teaching and non teaching staff e.g. CLAIT, ECDL, D32/	delivery of employability skills /skills for life.
D34. Community Crouns, University Of Illetor	
Community Group:- University Of Dister	
Existing provision	Areas for development
Step-Up Science programme – post 16, STAR programme, U.U. staπ person is	Step-Up Science at primary level, Key Stage 3 and 4 increase in STAR programme interventions
chairperson of PTA, Student lutors, Career days.	including ICT/Science initiatives with parents in feeder primary schools, Careers days, ICT support
	e.g. IC I student pracement at St. Mary's to set up Science specialist website, development of student
Community Group:- Old Library Trust	
Existing provision	Areas for development
Health Initiatives	Assist in delivery of new applied curriculum.
	Provide access to a Science specialist.
	Provide short Science-based courses e.g. first aid, dental hygiene, food hygiene
Community Group:- Scouting Ireland	
Existing provision	Areas for development
Provision of Science equipment for Science-based projects for 'scientist badge'	Access to a Science specialist for Science-based projects
	Access to labs.
Community Group:- Creggan Mother and Toddler Group	
Existing provision	Areas for development
Informal support by pupils in helping care for the toddlers.	Planned support through Healthy Eating/Science taster courses e.g. immunisation, healthy eating
Community Group:- Local businesses including those directly	Areas for development
involved in delivering the Science Curriculum	Assist in delivery of new applied curriculum.
Existing provision	
Step-Up Science pupils undertake projects with the following private and public sector	
organisations e.g.	
The Water Service/Seagate/Dupont/ Perfecseal / St. Brendan's / DCP	
Community Group : Derry City Council	Areas for development
Existing provision	Liaise with Environmental Health to develop Science-based projects in our local community
Initiatives relating to the environment including waste disposal and recycling	- 46 -

#### D2. Community plan: Objectives and Targets OBJECTIVE A: primary / other non-post-primary partners

- To encourage an interest and enjoyment in Science and Science related subjects
- To raise standards of pupil achievement in Science and Science related subjects
- To facilitate a seamless transition between primary and post primary education
- To promote career paths in Science
- To promote the use of ICT in Science
- To work with further and higher education in widening access and promoting lifelong learning
- To work with further and higher education in developing a skilled workforce

	Year	Target	Describe how you will im	Describe how you will implement these targets (use bullet points and short statements)			
			Action	Ownership	Time	Monitoring/ Evaluation	
Science (Primary Partners)	1	All five partner primary schools (primary 7 classes) will participate in one Science taster day to foster interest and enjoyment in Science	Science taster day will be set up through Sentinus	Head of Science, (St Mary's) Partnerships Development Officer (St Mary's ) Principals of Primary schools	Science taster courses by March 2007	All targets monitored on a monthly basis by the owner and Strategy group reporting to the Senior Management Team. Summative evaluations by the Senior Management Team at the end of each school term	
	1	Provide access to a specialist science centre.	Science centre will be made available to primary schools for one afternoon per week.	Head of Science, (St Mary's) Partnerships Development Officer (St Mary's ) Principals of Primary schools	From September 2006	All targets monitored on a monthly basis by the owner and Strategy group reporting to the Senior Management Team. Summative evaluations by the Senior Management Team at the end of each school term	

	1	Five staff members (1 Science co-ordinator in each partner primary school ) will receive two days training in the delivery of the Science Curriculum	To release a member of the Science department for preparation and delivery of the programme.	Staff Development co- ordinator	Primary Science curriculum training days in November 2006 and February 2007	All targets monitored on a monthly basis by the owner and Strategy group reporting to the Senior Management Team. Summative evaluations by the Senior Management Team at the end of each school term
	1	Provide access to science resource boxes for primary 7 science topics.	Science resource boxes will be collated in consultation with primary science co-ordinators made available to partner schools through a booking system.	Head of Science, (St Mary's) Primary science co- ordinators	Feb 2007	All targets monitored on a monthly basis by the owner and Strategy group reporting to the Senior Management Team. Summative evaluations by the Senior Management Team at the end of each school term
	1	All five primary schools' Science co-ordinators will receive a half days training in the use of Co-operative-learning strategies in the delivery of the primary Science Curriculum.	Staff Development Co-ordinator working with the Co-operative- learning team will ensure the delivery of the training programme for each of the partner primary schools.	Staff Development Co- ordinator working with the Co-operative- learning team	Half days training in Co- operative-learning to take place in March 2007	All targets monitored on a monthly basis by the owner and Strategy group reporting to the Senior Management Team. Summative evaluations by the Senior Management Team at the end of each school term
	1	All five primary schools will be provided with an interactive whiteboard and data projector to facilitate the delivery of Science and other subject areas	To purchase and supply interactive whiteboards and data projector to each of the partner primary schools. Supply half day training in its use.	ICT Co-ordinators in St Mary's and each partner school	Interactive whiteboards and data projectors to be provided to partner primary schools by Feb 07.	All targets monitored on a monthly basis by the owner and Strategy group reporting to the Senior Management Team. Summative evaluations by the Senior Management Team at the end of each school term
	1	Provide access to an ICT technician and ICT resources.	Employ an additional ICT technician. Primary partners will be given access to the technician. Target: 1 session per week	ICT Co-ordinators in St Mary's and each partner school	From Sept. 06 I session per week for every primary partner.	All targets monitored on a monthly basis by the owner and Strategy group reporting to the Senior Management Team. Summative evaluations by the Senior Management Team at the end of each school term

1	p.7 pupils from one partner primary school will have the opportunity to participate in Saturday school.	Partnerships Development Officer will invite p.7 pupils from one partner primary school to participate in Saturday school	Partnerships Development Officer (St Mary's) Principal of one partner primary school.	Sept. 06	All targets monitored on a monthly basis by the owner and Strategy group reporting to the Senior Management Team. Summative evaluations by the Senior Management Team at the end of each school term
1	p.7 pupils from partner primary schools will have the opportunity to participate in 'Step Up' science career talks.	Partnerships Development Officer will invite p.7 pupils from partner primary schools to participate in a science 'Step Up' careers event hosted by St. Mary's.	Partnerships Development Officer (St Mary's) Principals of partner primary schools. Dr. O Kane (U.U) Mr D. Laverty (NWIFHE)	April '07	All targets monitored on a monthly basis by the owner and Strategy group reporting to the Senior Management Team. Summative evaluations by the Senior Management Team at the end of each school term
1	<ul> <li>p.7 pupils from one partner</li> <li>primary school will have the</li> <li>opportunity to participate in a</li> <li>joint science</li> <li>project/competition with St.</li> <li>Mary's pupils.</li> <li>(Oracle Think.com)</li> </ul>	Head of Science, (St Mary's) will meet with primary science co- ordinator from one partner primary school to invite their p.7 pupils to participate in a joint science project. Project will be set up using the Oracle think.com ICT forum.	Head of Science, (St Mary's) Primary science co- ordinators	January ' 07	All targets monitored on a monthly basis by the owner and Strategy group reporting to the Senior Management Team. Summative evaluations by the Senior Management Team at the end of each school term
1	Develop a pupil mentoring scheme with one partner primary school.	Partnerships Development Officer (St Mary's) will meet with the principal of one partner primary school to develop a pupil mentoring scheme for their primary 7 pupils.	Partnerships Development Officer (St Mary's) Principals of one partner primary school.	Nov. 07	All targets monitored on a monthly basis by the owner and Strategy group reporting to the Senior Management Team. Summative evaluations by the Senior Management Team at the end of each school term
1	Invite parents of pupils in partner primary schools to participate in one science 'taster course'	Partnerships Development Officer (St Mary's) will meet with Mr D. Laverty (NWIFHE) to identify suitable taster science course for parents. Parents of pupils in partner primary schools will be invited to participate in the science 'taster course' at the science centre.	Partnerships Development Officer (St Mary's) NWIFHE Principals of partner primary schools	May 07	All targets monitored on a monthly basis by the owner and Strategy group reporting to the Senior Management Team. Summative evaluations by the Senior Management Team at the end of each school term

NWIFHE	1	<b>N.W. Institute of Further and</b> <b>Higher Education :</b> Develop Engineering at KS4 for inclusion in the curriculum in September 2006.	The Head of Engineering at NWIFHE will work with the Head of Technology through a series of meetings to set up the course	Head of Technology (St Mary's) Head of Engineering NWIFHE	Sept 06	All targets monitored on a monthly basis by the owner and Strategy group reporting to the Senior Management Team.
		Develop and run one taster course in Science for parents of St Mary's and partner schools	This course will take place in St Mary's and will focus on the benefits of studying Science and Science –related courses	Partnerships Development Officer, St Mary's and Head of Science, NWIFHE	May 07	Summative evaluations by the Senior Management Team at the end of each school term
		Participate in 'Step Up' science careers days. Target: 2 (1 for St. Mary's pupils, 1 for primary partners)	These days will take place in St Mary's and will focus on the benefits of studying Science and Science –related courses.	Partnerships Development Officer, St Mary's and Head of Science, NWIFHE	Jan '07 April '07	
U.U	1	University of Ulster : Participate in 'Step Up' science careers days. Target: 2 (1 for St. Mary's pupils, 1 for primary partners)	These days will take place in St Mary's and will focus on the benefits of studying Science and Science –related courses.	Head of Science, St Mary's, Step-Up co-ordinator Partnerships Development officer	Jan '07 April '07	All targets monitored on a monthly basis by the owner and Strategy group reporting to the Senior Management Team. Summative evaluations by the Senior Management Team at the end of
		Develop pupil mentoring.	Undergraduate students to be trained to act as mentors for sixth year pupils in St. Mary's. (Target:4)	Partnerships Development officer Dr. Damien O' Kane (U.U)	From Oct 07	each school term
		Participate in the development of a science specific website for St. Mary's and our partners.	Meet with Dr. Damien O Kane to identify specific assistance which could be given by U.U ICT and/ or science staff to the development of a science specific website.	Partnerships Development officer Dr. Damien O' Kane (U.U)	From Jan 07	

Primary Partners	2	All five partner primary schools (primary 7 classes) will participate in one Science taster day to foster interest and enjoyment in Science	Science taster day will be set up through Sentinus	Head of Science, (St Mary's) Partnerships Development Officer (St Mary's ) Principals of Primary	Science taster courses by December 2007	All targets monitored on a monthly basis by the owner and Strategy group reporting to the Senior Management Team. Summative evaluations by the Senior Management Team at the end of each school term
	2	Provide access to a specialist science centre.	Science centre will be made available to primary schools for one afternoon per week.	Head of Science, (St Mary's) Partnerships Development Officer (St Mary's) Principals of Primary schools	From September 2007	All targets monitored on a monthly basis by the owner and Strategy group reporting to the Senior Management Team. Summative evaluations by the Senior Management Team at the end of each school term
	2	Provide access to science resource boxes for primary 6 science topics.	Science resource boxes will be collated in consultation with primary science co-ordinators made available to partner schools through a booking system.	Head of Science, (St Mary's) Primary science co- ordinators	Feb 2008	All targets monitored on a monthly basis by the owner and Strategy group reporting to the Senior Management Team. Summative evaluations by the Senior Management Team at the end of each school term
	2	All five primary schools' Science co-ordinators will receive a half days training in the use of Co-operative-learning strategies in the delivery of the primary Science Curriculum.	Staff Development Co-ordinator working with the Co-operative- learning team will ensure the delivery of the training programme for each of the partner primary schools.	Staff Development Co- ordinator working with the Co-operative- learning team	Half days training in Co- operative-learning to take place in March 2008	All targets monitored on a monthly basis by the owner and Strategy group reporting to the Senior Management Team. Summative evaluations by the Senior Management Team at the end of each school term
	2	Provide access to an ICT technician and ICT resources.	Primary partners will be given access to the technician for the further development of ICT resources. Target: 1 session per week	ICT Co-ordinators in St Mary's and each partner school	From Sept. 07 I session per week for every primary partner.	All targets monitored on a monthly basis by the owner and Strategy group reporting to the Senior Management Team. Summative evaluations by the Senior Management Team at the end of each school term

2	p.7 pupils from an additional partner primary school will have the opportunity to participate in Saturday school.	Partnerships Development Officer will invite p.7 pupils from one partner primary school to participate in Saturday school	Partnerships Development Officer (St Mary's ) Principal of one partner primary school.	By Sept. 07	All targets monitored on a monthly basis by the owner and Strategy group reporting to the Senior Management Team. Summative evaluations by the Senior Management Team at the end of each school term
2	p.7 pupils from partner primary schools will have the opportunity to participate in 'Step Up' science career talks.	Partnerships Development Officer will invite p.7 pupils from partner primary schools to participate in a science 'Step Up' careers event hosted by St. Mary's.	Partnerships Development Officer (St Mary's) Principals of partner primary schools. Dr. O Kane (U.U) Mr D. Laverty (NWIFHE)	April '08	All targets monitored on a monthly basis by the owner and Strategy group reporting to the Senior Management Team. Summative evaluations by the Senior Management Team at the end of each school term
2	<ul> <li>p.7 pupils from an additional partner primary school will have the opportunity to participate in a joint science project/competition with St. Mary's pupils. (Oracle Think.com)</li> </ul>	Head of Science, (St Mary's) will meet with primary science co- ordinator from one partner primary school to invite their p.7 pupils to participate in a joint science project. Project will be set up using the Oracle think.com ICT forum.	Head of Science, (St Mary's) Primary science co- ordinators	January ' 08	All targets monitored on a monthly basis by the owner and Strategy group reporting to the Senior Management Team. Summative evaluations by the Senior Management Team at the end of each school term
2	Develop a pupil mentoring scheme with an additional partner primary school.	Partnerships Development Officer (St Mary's ) will meet with the principal of one partner primary school to develop a pupil mentoring scheme for their primary 7 pupils.	Partnerships Development Officer (St Mary's ) Principals of one partner primary school.	Nov. 08	All targets monitored on a monthly basis by the owner and Strategy group reporting to the Senior Management Team. Summative evaluations by the Senior Management Team at the end of each school term
2	Invite parents of pupils in partner primary schools to participate in two science 'taster course'	Partnerships Development Officer (St Mary's) will meet with Mr D. Laverty (NWIFHE) to identify suitable taster science course for parents. Parents of pupils in partner primary schools will be invited to participate in the science 'taster course' at the science centre.	Partnerships Development Officer (St Mary's ) NWIFHE Principals of partner primary schools	May 08	All targets monitored on a monthly basis by the owner and Strategy group reporting to the Senior Management Team. Summative evaluations by the Senior Management Team at the end of each school term

2	<b>N.W. Institute of Further and</b> <b>Higher Education :</b> Develop Engineering at post 16 for inclusion in the curriculum in September 2007.	The Head of Engineering at NWIFHE will work with the Head of Technology through a series of meetings to set up the course	Head of Technology (St Mary's) Head of Engineering NWIFHE	Sept 07	All targets monitored on a monthly basis by the owner and Strategy group reporting to the Senior Management Team.
	Develop and run an additional taster course in Science for parents of St Mary's and partner schools	This course will take place in St Mary's and will focus on the benefits of studying Science and Science –related courses	Partnerships Development Officer, St Mary's and Head of Science, NWIFHE	May 08	Summative evaluations by the Senior Management Team at the end of each school term
	Participate in 'Step Up' science careers days. Target: 2 (1 for St. Mary's pupils, 1 for primary partners)	These days will take place in St Mary's and will focus on the benefits of studying Science and Science –related courses.	Partnerships Development Officer, St Mary's and Head of Science, NWIFHE	Jan '08 April '08	
2	University of Ulster : To introduce the Step-Up Programme to the partner primary schools	P7 pupils will come to St Mary's to hear about Step-Up form Dr Damien O' Kane U.U.	Head of Science, Primary-secondary links teacher, Dr O' Kane Principals of primary schools	January 2008	All targets monitored on a monthly basis by the owner and Strategy group reporting to the Senior Management Team. Summative evaluations by the Senior Management Team at the end of
	The university will continue to assist us in the development of a dedicated website for Science to be used by ourselves and also by our partners	The site will provide curriculum information and access to teaching materials	Faculty of Informatics at U.U. Technology Co- ordinator, St Mary's	September - April 2008	each school term
	Further develop pupil mentoring.	Undergraduate students to be trained to act as mentors for sixth year pupils in St. Mary's. (Target:5)	Partnerships Development officer Dr. Damien O' Kane (U.U)	From Oct. 08	

3/4	Outline of plans						
	<ul> <li>To encourage an interest and enjoyment in Science and Science –related subjects</li> <li>In the primary schools we will set the following targets for years 3 and 4 : <ul> <li>All P5, P6 and P7 pupils will have an opportunity to be involved in Science taster programme run by Sentinus</li> <li>All P6 and P7 pupils will have Science - related careers talks annually</li> <li>All parents of pupils in P4 -P7 have the opportunity be involved in "Science for Fun" courses</li> <li>All parents will have access to Science-taster courses at St. Mary's Science Centre.</li> </ul> </li> </ul>						
	<ul> <li>To raise standards of pupil achievement in Science and Science-related subjects</li> <li>Resource banks will be developed for all partner primary schools</li> <li>All primary Science Co-ordinators will have access to a Science technician.</li> <li>All primary Science Co-ordinators will have access to a dedicated Science website which will be kept updated.</li> <li>Co-operative-learning will be further developed in partner primary schools with sharing of expertise between</li> <li>primary and secondary teachers</li> </ul>						
	<ul> <li>To facilitate a seamless transition between primary and post primary education</li> <li>St Mary's will work closely with partner primary schools in ensuring a seamless transition in the Science curriculum and the curriculum as a whole.</li> <li>The Head/Co-ordinator of Science will share resources and arrange for staff to participate in teacher exchanges. A similar model will develop across other subject areas.</li> <li>Further development of Oracle project "Think.com"</li> </ul>						
	<ul> <li>To promote careers paths in Science</li> <li>Pupils in P6 and P7 will have Science-related careers talks both by the Head of Careers in St Mary's, the careers service and also by staff at the NWIFHE and the University of Ulster</li> </ul>						
	<ul> <li>To promote the use of ICT in Science</li> <li>All partner primary schools will have two interactive whiteboards and data projectors.</li> <li>An ICT technician, appointed by St Mary's, will be available to the primary schools for one morning/afternoon session per week.</li> <li>Science software will be made available and training provided.</li> </ul>						
	<ul> <li>To work with further and higher education in promoting widening access and lifelong learning</li> <li>The NWIFHE and the University of Ulster will continue to assist us in promoting the importance of Science in our lives and the importance of continuing to learn new knowledge and skills.</li> <li>We will develop Specialist Science Teacher Training Status in partnership with the University of Ulster</li> </ul>						
	<ul> <li>To work with further and higher education in developing a skilled workforce</li> <li>We will develop vocational courses in partnership with the NWIFHE and the University of Ulster which will address the skills deficit areas outlined in the Northern Ireland Skills Strategy</li> </ul>						

#### **OBJECTIVE B: post-primary partners**

- To encourage an interest and enjoyment in Science and Science related subjects •
- To raise standards of pupil achievement in Science and Science-related subjects at GCSE and Advanced Level To develop Step-Up Science at KS3 and KS4 as well as Post 16 •
- .
- To promote careers paths in Science
- To promote the use of ICT in Science .
- To provide access to the STAR Programme interventions •

	Year	Target	Action	Ownership	Time	Monitoring/evaluation
Subject 1	1	Science staff at Lisneal, St Joseph's and St. Mary's will have the opportunity to plan and share expertise for the implementation of the new science curriculum.	Staff will meet monthly for 1 after-school meeting to develop the Science curriculum and to build a bank of shared resources	Heads of Science in the three schools	One hour on Mondays during directed time	All targets monitored on a fortnightly basis by the owner and Strategy group reporting to the Senior Management Team. Summative evaluations by the Senior Management Team at the end of each school term
	1	First year pupils from the three schools will have the opportunity to participate in joint Science projects and prepare for competitions. (Target:6) e.g. Young Environmentalist	Head of Science, (St Mary's) will meet with primary science co-ordinator from one partner primary school to invite their 1 <sup>st</sup> year pupils to participate in a joint science project. Project will be set up using the Oracle think.com ICT forum.	Heads of Science in the three schools	January 2007	All targets monitored on a monthly basis by the owner and Strategy group reporting to the Senior Management Team. Summative evaluations by the Senior Management Team at the end of each school term

1	Year 12 pupils will be made aware of Step-Up Science at KS4 in the 3 schools	Dr D. O' Kane will speak to all KS4 pupils in the 3 schools	Heads of Science in the three schools	January 2007	All targets monitored on fortnightly basis by the owner, reporting to monitoring groups Summative evaluations by the Senior Management Team at the end of each school term
1	Head's of Science in partner schools will receive a half days training in the use of Co-operative-learning strategies in the delivery of the secondary Science Curriculum.	Staff Development Co-ordinator working with the Co-operative- learning team will ensure the delivery of the training programme for each of the partner schools.	Staff Development Co- ordinator working with the Co-operative- learning team	Half days training in Co- operative-learning to take place in March 2007	All targets monitored on fortnightly basis by the owner, reporting to monitoring groups Summative evaluations by the Senior Management Team at the end of each school term
1	Develop and run taster course in Science for parents of pupils in partner schools	This course will take place in St Mary's and will focus on the benefits of studying Science and Science –related courses	Partnerships Development Officer, St Mary's and Head of Science, NWIFHE	May 07	All targets monitored on a monthly basis by the owner and Strategy group reporting to the Senior Management Team. Summative evaluations by the Senior Management Team at the end of each school term
1	Offer sixth form courses in partnership with one partner school.	Meet with Head of Sixth form of one partner school to identify courses that could be offered to pupils from both schools.	Head of Sixth Form (St. Mary's and Partner school)	Sept 06	All targets monitored on a monthly basis by the owner and Strategy group reporting to the Senior Management Team. Summative evaluations by the Senior Management Team at the end of each school term
2	Science staff at Lisneal, St Joseph's and St. Mary's will continue to have the opportunity to plan and share expertise for the implementation of the new science curriculum.	Staff will meet monthly for one after-school meeting to develop the Science curriculum and to build a bank of shared resources	Heads of Science in the three schools	One hour on Mondays during directed time	All targets monitored on termly basis by the owner, reporting to monitoring groups Summative evaluations by the Senior Management Team at the end of each school term

	2	First year pupils from the three schools will have the opportunity to participate in joint Science projects and prepare for competitions. (Target: 10) e.g. Young Environmentalist	Head of Science, (St Mary's) will meet with primary science co-ordinator from one partner primary school to invite their 1 <sup>st</sup> year pupils to participate in a joint science project. Project will be set up using the Oracle "Think.com" ICT forum.	Heads of Science in the three schools	January 2008	All targets monitored on a monthly basis by the owner and Strategy group reporting to the Senior Management Team. Summative evaluations by the Senior Management Team at the end of each school term
-	2	Year 11 and 12 pupils will be made aware of Step-Up Science at KS4 in the 3 schools	Dr D. O' Kane will speak to all KS4 pupils in the 3 schools	Heads of Science in the three schools	January 2008	All targets monitored on fortnightly basis by the owner, reporting to monitoring groups Summative evaluations by the Senior Management Team at the end of each school term
-	2	Heads of Science in partner schools will receive a half days training in the use of Co-operative-learning strategies in the delivery of the secondary Science Curriculum.	Staff Development Co-ordinator working with the Co-operative- learning team will ensure the delivery of the training programme for each of the partner schools.	Staff Development Co- ordinator working with the Co-operative- learning team	Half days training in Co- operative-learning to take place in March 2008	All targets monitored on fortnightly basis by the owner, reporting to monitoring groups Summative evaluations by the Senior Management Team at the end of each school term
	2	Develop and run an additional taster course in Science for parents of pupils in partner schools	This course will take place in St Mary's and will focus on the benefits of studying Science and Science –related courses	Partnerships Development Officer, St Mary's and Head of Science, NWIFHE	May 08	All targets monitored on a monthly basis by the owner and Strategy group reporting to the Senior Management Team. Summative evaluations by the Senior Management Team at the end of each school term

2	Offer sixth form courses in partnership with both partner schools.	Meet with Head of Sixth form of one partner school to identify courses that could be offered to pupils from both schools.	Head of Sixth Form (St. Mary's and Partner schools) NWIFHE	Sept 07	All targets monitored on a monthly basis by the owner and Strategy group reporting to the Senior Management Team. Summative evaluations by the Senior Management Team at the end of each
3/4	<ul> <li>To encourage an interest and enjoym</li> <li>Pupils will have the opportunit</li> <li>Year 10 pupils in partner secon</li> <li>To raise standards of pupil achieveme</li> <li>Co-operative-learning strategie</li> <li>Science staff will continue to r</li> <li>To develop Step-Up Science at KS3 at</li> <li>KS3 pupils will be informed at</li> <li>KS4 Science will be introduced</li> <li>To promote careers paths in Science</li> <li>There will be a major focus i Seagate and the Odyssey Corr</li> <li>Parents will be invited to care</li> <li>Parents will be given the opportu</li> <li>To promote the use of ICT in Science</li> <li>Training will be provided by V</li> <li>A dedicated website will contin</li> <li>Develop ICT initiatives with p</li> <li>To provide access to STAR Programm</li> <li>Pupils will participate in the Sti</li> <li>Science study weekends will b</li> <li>Pupils will have access to indiv</li> </ul>	ent in Science and Science –related ty to participate in joint Science cor- ndary schools will have access to St ent in Science and Science-related es will be shared and developed acr- neet and share expertise including t nd KS4 as well as Post 16 bout Step-Up Science and will have d in St Joseph's and Lisneal Colleg n Science related careers education nplex for younger pupils. eers evenings at Magee. (The focus ortunity to participate in the 'Parent nity to study GCSE science at the S VELB on new Science software and nue to be developed with help from artner schools through Oracle me interventions tar Summer School with a Science to e developed. vidual tuition through Saturday Sch	ed subjects npetitions and Science educ Mary's Science Role Mod I subjects at GCSE and "4 oss the 3 schools eacher exchanges across the e an opportunity to experient e. for all pupils including tal will be on science related of the helping in the classroom' ot. Mary's Science Centre. I other aspects of ICT the University of Ulster theme in 2008 ool.	cational visits. el week and also Saturday scl <b>A" level / Applied GCE Lev</b> e 3 schools ace aspects of the course. ks by the business communit careers) course (NWIFHE)	y and visits to e.g. DuPont,

Lead: Mrs G. Doherty

To develop an awareness of the importance of Science in its relevance to our everyday lives especially in terms of the quality of life experiences and employability

	Year	Target	Describe how you will implement these targets (use bullet points and short statements)
Parents	1	One Science taster courses for parents	<ul> <li>Target parents of St. Mary's</li> <li>Courses organised by NWIFHE. e.g. First Aid, Food Hygiene</li> <li>These courses will be based in St. Mary's Science Centre</li> </ul>
	2	Training for parents helping in classrooms (Target: 2)	<ul><li>Target parents of pupils in St. Mary's.</li><li>Training provided by NWIFHE and St Mary's Science staff</li></ul>
Old library Trust	brary Trust       1       Provide access to a Science specialist to assist in delivery of Trust community courses.       • Science specialist to liaise with staff from 0 scientific interest.         • Provide access to a Science specialist.       • Provide access to a Science specialist.		<ul> <li>Science specialist to liaise with staff from Old Library Trust to identify areas of scientific interest.</li> <li>Provide access to a Science specialist.</li> </ul>
	2	One science taster courses for local community	<ul><li>Courses organised by NWIFHE. e.g. First Aid, Food Hygiene</li><li>Course to be held in St. Mary's Science Centre</li></ul>
Creggan Mother and Toddler group	1	Provide access to a Science specialist to assist in preparation of resources and delivery of pre school programme.	• Science specialist to liaise with staff and mother's from Creggan Mother and Toddler group to identify areas of scientific interest.
	2	One Science taster courses for mothers.	<ul> <li>Courses organised by NWIFHE. e.g. First Aid, Food Hygiene</li> <li>Course to be held in St. Mary's Science Centre.</li> </ul>

Scouting Ireland	1	Provide access to specialist equipment and facilities to facilitate achievement of 'Scientist' badge. Provide a short course on e.g. first aid.	<ul> <li>Make contact with local scout groups e.g. 35<sup>th</sup> Derry Unit.</li> <li>Organise to visit unit and share with leaders ideas on how scouts can achieve their 'scientist' badge in an interesting and fun way.</li> <li>Offer to share resources and specialist facilities with the unit.</li> <li>Make contact with local scout groups e.g. 35<sup>th</sup> Derry Unit.</li> </ul>
			• Offer to provide short courses for scouts on first aid. (Red Cross)
Derry City Council	1	Assist in delivery of new applied curriculum	• Liaise with Environmental Health to develop a Science projects .based on our local community e.g. recycling
	2	Assist in delivery of new applied curriculum	• Liaise with Environmental Health to develop an additional Science project .based on our local community e.g. air pollution
		Participate in role model week	• Invite employees from environmental to our role model week.
Business/employers	1	• Local business representative on to the 'Specialist School Board of Management' for St. Mary's.	• Invite a local business representative on to the 'Specialist School Board of Management'
		• Focus group to review and revise our numeracy policy.	• Invite 3 representatives of local employers / businesses to set up a focus group to review and revise our numeracy policy
		• Talks by local employers to classes (6)	• Invite local employers to give talks to career / business classes.
		• Employers involved in work placement programme. (Target 40).	Invite employers involved in work placement programme
		• 'Adopt a class' (Target: 1 class)	Adopt a class organised through FOSEC
		• 'Back to School Day' for employers (Target 8)	• Invite employers to participate in 'Back to School Day'
	2	• Focus group to review and revise our literacy policy.	• Invite 3 representatives of local employers / businesses to set up a focus group to review and revise our literacy policy.
		• Talks by local employers to classes (8)	• Invite local employers to give talks to career / business classes.
		• Employers involved in work placement programme. (Target 45).	• Invite employers involved in work placement programme
		• 'Adopt a class' (Target: 2 classes)	Adopt a class organised through FOSEC
		Participate in role model week	• Invite employees from environmental to our role model week
		Back to school day for employers (Target: 9)	• Invite employers to participate in 'Back to School Day'

3/4	Parents, Old Library Trust, Mother and Toddlers, Scouting Ireland
	Continue to offer additional short science based courses in St. Mary's Science Centre
	• Career's evenings for parents / community
	• Further training for parents helping in Science classrooms (Target: 4)
	• GCSE science related courses based in St Mary's Science Centre (To lead into Advanced courses, foundation degrees at NWIFHE)
	Derry City Council
	• To continue to assist in the delivery of the new science curriculum at all key stages through the development of locally based science projects. (Target: 4)
	Business / Employers
	• Focus group of 3 employers to review and revise our ICT policy.
	• Talks by local employers to classes (10)
	• Employers involved in work placement programme. (Target 55).
	• 'Adopt a class' (Target: 4 classes)
	• Participate in role model week (Year 4 - Target:20)
	• Back to school day for employers (Target: 13)

D3. Community plan: Brief outline of intended use of Year 1 (2006/07 financial year) specialist school annual grant (see Guidance page 15)

Item	Cost (£)
Additional staff resources (teaching staff)	
Additional staff resources (non-teaching staff)	
1/2 Science technician	£8,000
Staff development	
Co-operative-learning	£6,000
ICT	
Equipment and materials in specialist subjects	
Resource boxes	£6,000
Consumables	
Whiteboards, software and data projectors + fittings	
Other	
Competitions	£7,000
Speakers	
Transport	
Extra tuition	
Saturday School	
Total	£30,000

#### SECTION E: SCHOOL AND COMMUNITY PLANS - MONITORING AND EVALUATION (see Guidance page 16)

Our monitoring and evaluation strategies are illustrated in the diagram below as follows:



Owners of key specialist school processes have process maps (see appendix C) and will report on a fortnightly basis to groups with specific monitoring responsibilities. These groups will in turn report on a fortnightly basis to the management committee. The Board of Management will meet once per term to receive updates and a summative evaluation each June

# SECTION F: OUTLINE OF CAPITAL PROJECT

# \*All figures to include professional fees and VAT where appropriate.

Brief description of proposed capital project	Cost* (£)	Brief statement on how this expenditure will support your targets
Contribution to new build		
Refurbishment or adaptations		
Science Specialist Facility Hire of community facility for use by partner schools and community. (Old Library Trust based in Creggan)	£50,000	This facility will be used by partner schools and our local community with Science support given by a Science teacher or Science / ICT technician.
IT equipment/resources/software		
17 whiteboards, data projectors and software + fittings	£51,000	Whiteboards will be fitted in all Science rooms and in one Maths, English and learning support room.
Other furniture and equipment		
Tables and chairs Microscopes, balances and other basic science equipment	£24,250	This will enhance the learning experience in science for our own pupils and those in our partner schools and community members.
Total	£125,250	
Less sponsorship	£25,250	
Less other sources of committed funding (please specify source)	Oracle	
Total grant sought from DE	£100,000	

# SECTION G: SUMMARY OF SPONSORSHIP (see Guidance page 17)

Sponsor/Source of sponsorship	Value of sponsorship	Nature of sponsorship (e.g. cash, furniture, equipment)	Are there any conditions attached to the sponsorship?	Financial year(s) in which sponsorship is available	
				Cash	Goods
FGS (Farrell Grant Sparks) Chamber of Commerce House 27 Great Victoria Street, Belfast BT2 7BA	£25,000	Cash	Νο	2006 - 2007	
Bombardier Short Brothers plc Airport Road Belfast BT3 9DZ	£250	Cash	Νο	2006 -2007	
Oracle (Letter of support to follow)	£25,000	Equipment/involvement in projects/training	Νο	2006 - 2010	
Total	£50,250				

I confirm that the information provided in this application is correct.

Signature..... Date.....

Title i.e. Chair, Principal etc. .....Geraldine Keegan (Principal).....

Please return the completed form **both** in hard copy **and** by email to:

Lorraine Finlay Policy Unit Department of Education Rathgael House 43 Balloo Road BANGOR BT19 7PR Iorraine.finlay@deni.gov.uk