

Rannóg Pholasaí, Cháilíochtaí,  
Churaclaim agus Mheasúnachta,  
An Roinn Oideachais agus  
Eolaíochta,  
Bloc 2 (Bunurlár),  
Sráid Maoilbhríde,  
Baile Átha Cliath 1



Qualifications, Curriculum and  
Assessment Policy Unit,  
Department of Education and  
Science,  
Block 2 (Ground Floor),  
Marlborough Street,  
Dublin 1

*Circular Letter 0024/2010*

*To: Management Authorities of Second Level Schools*

### **Junior and Leaving Certificate Mathematics**

1. Building on the work of Project Maths which began in 24 schools in September 2008, revised programmes in Mathematics at junior and senior cycle will be introduced on a phased basis in all schools beginning in 2010/11. The reforms are designed to encourage better understanding of mathematics, to reinforce its practical relevance to everyday life, and to ensure better continuity between primary and second level, and junior and senior cycle. The main features of Project Maths are designed to
  - provide a bridging framework from the revised primary curriculum into second level
  - give a greater emphasis to the understanding of mathematical concepts and the application of mathematical skills and knowledge
  - contribute to the development of higher order thinking skills, including logical reasoning and problem solving
  - encourage greater take-up at Higher Level
  - provide a solid foundation which prepares students for careers in science, technology, engineering, business or humanities options

Project Maths provides for a professional development model under which change will be implemented in various areas of maths on a phased basis. The curriculum will be phased in over three years covering the following five strands of mathematics:

Phase 1: Strand 1 statistics and probability; Strand 2 geometry and trigonometry

Phase 2: Strand 3 number; Strand 4 algebra

Phase 3: functions

The following schedule will apply to implementation of Phase 1:

| <b>Phase</b> | <b>Syllabus strands</b> | <b>24 Project Schools Commence</b> | <b>24 Project Schools Changed Exams</b> | <b>All Schools Commence</b> | <b>All Schools Changed Exams</b> |
|--------------|-------------------------|------------------------------------|---|-----------------------------|----------------------------------|
| 1            | <b>1 + 2</b>            | Sept. 2008                         | JC 2011<br>LC 2010                      | <b>September 2010</b>       | JC 2013<br>LC 2012               |

## Professional development

A Project Maths Development Team has been appointed and will be in continuing contact with your school regarding a comprehensive programme of professional development for teachers. This support service is being hosted by Drumcondra Education Centre. Support will be provided on a rolling basis as each strand of the curriculum is implemented, and will continue until at least 2013. Some €m is being invested in this area in 2010 as part of the ongoing investment.

In addition to the training being provided nationally, a course of regional workshops on using ICT to teach Strands 1 and 2 of Maths is now available in collaboration with the *National Centre for Technology in Education*. In addition, the *National Centre of Excellence in Maths and Science Teaching and Learning* in the University of Limerick and the Project Maths Development Team have trained local facilitators to provide additional workshops on Strand 1: Probability and Statistics. Details of the dates and venues for these courses are on [www.projectmaths.ie](http://www.projectmaths.ie)

## Syllabuses

Draft syllabuses for a Common Introductory Course at the start of junior cycle, and for Strands 1, 2, 3 and 4, are available on the NCCA website at [www.ncca.ie](http://www.ncca.ie). In addition, student resource materials are available at this site for Strands 1 and 2. The Project Maths Development Team's website [www.projectmaths.ie](http://www.projectmaths.ie) has teaching and learning plans for Strands 1 and 2 and other resources for the programme. These are being expanded over time. The rollout of Project Maths is being informed by the feedback from the initial 24 Project schools. Hard copies of the finalised syllabuses for Strand 1 and 2 will issue to all schools in the summer.

There will be two revised syllabus levels at Junior Certificate — Ordinary Level and Higher Level. Initially, there will also be a Foundation Level examination at Junior Certificate, based on the revised Ordinary Level syllabus. The necessity for the Foundation Level examination at junior certificate level will be kept under review. Leaving Certificate Mathematics will continue to be available at three syllabus levels -- Foundation, Ordinary and Higher, with corresponding levels of examination papers.

Sample Leaving Certificate examinations papers for Strands 1 and 2 (i.e Paper 2) are on the State Examinations Commission website at [www.examinations.ie](http://www.examinations.ie) Note that these sample papers relate only to the 2010 examination in the 24 initial schools. The content of the syllabus has been further amended for the examinations of 2011 and thereafter, and these sample papers therefore do not necessarily reflect the content or structure of the examination in 2011 or subsequent years. In that regard, amended or new versions will be made available in due course.

Please bring this circular to the notice of all mathematics teachers in the school.

Please also provide a copy of this circular to the appropriate representatives of parents and teachers for transmission to individual parents and teachers.

Margaret Kelly  
Principal Officer  
March 2010

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*Imlitir 0024/2010*

***Chuíg: Údaráis Bainistíochta Scoileanna Dara Leibhéal***

**Matamaitic don Teastas Sóisearach agus don Ardteistiméireacht**

1. Ag tógáil dúinn ar obair an Tionscadal Mata a thosaigh i 24 scoileanna i Meán Fómhair 2008, tabharfar isteach cláir athbhreithnithe don Mhatamaitic sa Timthriallta Sóisearacha agus Sinsearacha ar bhonn céimnithe insna scoileanna uile ag tosú i 2010/11. Tá na leasúcháin ceaptha chun tuiscint níos fearr ar an Matamaitic a spreagadh, chun ábharthacht phraiticiúil na Matamaitice sa saol laethúil a athneartú, agus chun leanúnachas níos fearr a chinntiú idir an bunleibhéal agus an dara leibhéal, agus idir an Timthriall Sóisearach agus an Timthriall Sinsearach. Tá príomhghnéithe an Tionscadal Mata ceaptha chun

- nasc-chreatlach a sholáthar ón gcuraclam athbhreithnithe bunscoile go dtí an dara leibhéal
- béim níos mó a chur ar thuiscint coincheap matamaitice agus ar fheidhmiú scileanna agus eolas matamaitice
- cur le forbairt scileanna ardoird smaointeoireachta, san áireamh réasúnú loighiciúil agus réiteach fadhbanna
- breis mac léinn a spreagadh chun gabháil don Mhatamaitic ag an Ardleibhéal
- bunoilúint daingean a sholáthar a ullmhaíonn mic léinn do ghairmréimeanna san eolaíocht, sa teicneolaíocht, san innealltóireacht, sa ghnó nó sna daonnachtaí

Forálann an Tionscadal Mata do shamhail forbartha ghairmiúil faoina gcuirfear an t-athrú i bhfeidhm i réimsí éagsúla den Mhatamaitic ar bhonn céimnithe. Céimneofar an curaclam isteach thar trí bliana agus cuimseofar na cúig snáithe seo a leanas den Mhatamaitic:

Céim 1: Snáithe 1: Staitistic agus Dóchúlacht;

Snáithe 2 céimseata agus triantánacht

Céim 2: Snáithe 3 uimhir; Snáithe 4 ailgéabar

Céim 3: feidhmeanna

Beidh feidhm leis an sceideal seo a leanas i gcomhair cur i bhfeidhm Céime 1:

| Céim | Snáitheanna an tsiollabais | Tosaíonn 24 Scoil an Tionscadail | Scrúduithe Athraithe i 24 Scoil an Tionscadail | Tosaíonn na Scoileanna Uile | Scrúduithe Athraithe insna Scoileanna Uile |
|------|----------------------------|----------------------------------|--|-----------------------------|--|
| 1    | 1 + 2                      | M. Fómh. 2008                    | TS 2011<br>AT 2010                             | Meán Fómhair 2010           | TS 2013<br>AT 2012                         |

## Forbairt ghairmiúil

Tá Foireann Forbartha don Tionscadal Mata ceaptha agus beidh siad i dteagmháil go leanúnach le do scoilse maidir le clár cuimsitheach forbartha ghairmiúil do mhúinteoirí. Tá an tSeirbhís Tacaíochta seo á hóstáil ag Ionad Oideachais Droim Conrach. Tabharfar tacaíocht ar bhonn rollaithe de réir mar a fheidhmítear gach aon snáithe den churaclam agus leanfaidh an tacaíocht ar aghaidh go dtí 2013 ar a laghad. Táthar ag infheistiú €5m sa réimse seo i 2010 mar chuid den infheistiú leanúnach.

I dteannta leis an oiliúint atáthar ag soláthar go náisiúnta, tá cúrsa ceardlann réigiúnacha faoi úsáid an TFC chun Snáitheanna 1 agus 2 den Mhata a mhúineadh le fáil anois i gcomhar leis an *Lárionad Náisiúnta don Teicneolaíocht san Oideachas*. I dteannta leis sin, tá éascaitheoirí áitiúla oile ag an *Ionad Barr Feabhais i Múineadh agus Foghlaim na Matamaitice agus na hEolaíochta* in Ollscoil Luimnigh agus ag an bhFoireann Forbartha don Tionscadal Mata chun ceardlanna breise a sholáthar faoi Snáithe 1: Dóchúlacht & Staitistic. Tá sonraí faoi dhátaí agus ionaid do na cúrsaí seo ar [www.projectmaths.ie](http://www.projectmaths.ie)

## Siollabais

Tá dréacht-shiollabais do Chúrsa Comónta Tosaigh ag tosach an timhrialla sóisearaigh, agus do Snáitheanna 1, 2, 3 agus 4, le fáil ar shuíomh gréasáin an CNCM ag [www.ncca.ie](http://www.ncca.ie). Ina theannta sin, tá ábhair acmhainne do mhic léinn le fáil ar an suíomh seo i gcomhair Snáitheanna 1 agus 2. Tá pleananna múinteoireachta agus foghlama i gcomhair Snáitheanna 1 agus 2 agus acmhainní eile don chlár ar shuíomh gréasáin na Foirne Forbartha don Tionscadal Mata [www.projectmaths.ie](http://www.projectmaths.ie) Tá siad seo á leathnú de réir a chéile. Tá rollú amach an Tionscadal Mata faoi réir ag an aiseolas ó 24 scoil tosaigh an Tionscadail. Eiseofar cruachóipeanna de na siollabais chríochnaitheacha do Snáitheanna 1 agus 2 chuig na scoileanna go léir sa samhradh.

Beidh dhá leibhéal athbhreithnithe siollabais ann don Teastas Sóisearach — Gnáthleibhéal agus Ardleibhéal. I dtosach, beidh Scrúdú Bonnleibhéal ann don Teastas Sóisearach chomh maith, a bheidh bunaithe ar an siollabas athbhreithnithe Gnáthleibhéal. Athbhreithneofar go rialta an riachtanas leis an Scrúdú Bonnleibhéal don Teastas Sóisearach. Beidh Matamaitic na hArdteistiméireachta le fáil i gcónaí ag leibhéil trí shiollabas – Bonnleibhéal, Gnáthleibhéal agus Ardleibhéal, le leibhéil páipéar scrúdaithe dá réir sin.

Tá páipéir scrúdaithe samplacha Ardteistiméireachta do Snáitheanna 1 agus 2 (i.e Páipéar 2) ar shuíomh gréasáin Choimisiún na Scrúduithe Stáit ag [www.examinations.ie](http://www.examinations.ie) Tabhair faoi deara nach mbaineann na páipéir shamplacha seo ach le scrúdú 2010 insna 24 scoil tosaigh. Táthar tar éis breis leasaithe a dhéanamh ar an siollabas do scrúduithe 2011 agus ina dhiaidh sin, agus ní gá go léireodh na páipéir shamplacha seo inneachar ná struchtúr an scrúdaithe i 2011 ná ina dhiaidh sin. Ina leith sin, cuirfear leaganacha leasaithe nó leaganacha nua ar fáil in am tráth.

Cuir an ciorclán seo ar a súile led thoil do na múinteoirí Matamaitice uile sa scoil.

Cuir cóip den chiorclán seo ar fáil chomh maith led thoil d'ionadaithe cuí na dtuismitheoirí agus na múinteoirí lena dtarchur go dtí tuismitheoirí agus múinteoirí aonair.

Margaret Kelly  
Príomhoifigeach  
Márta 2010