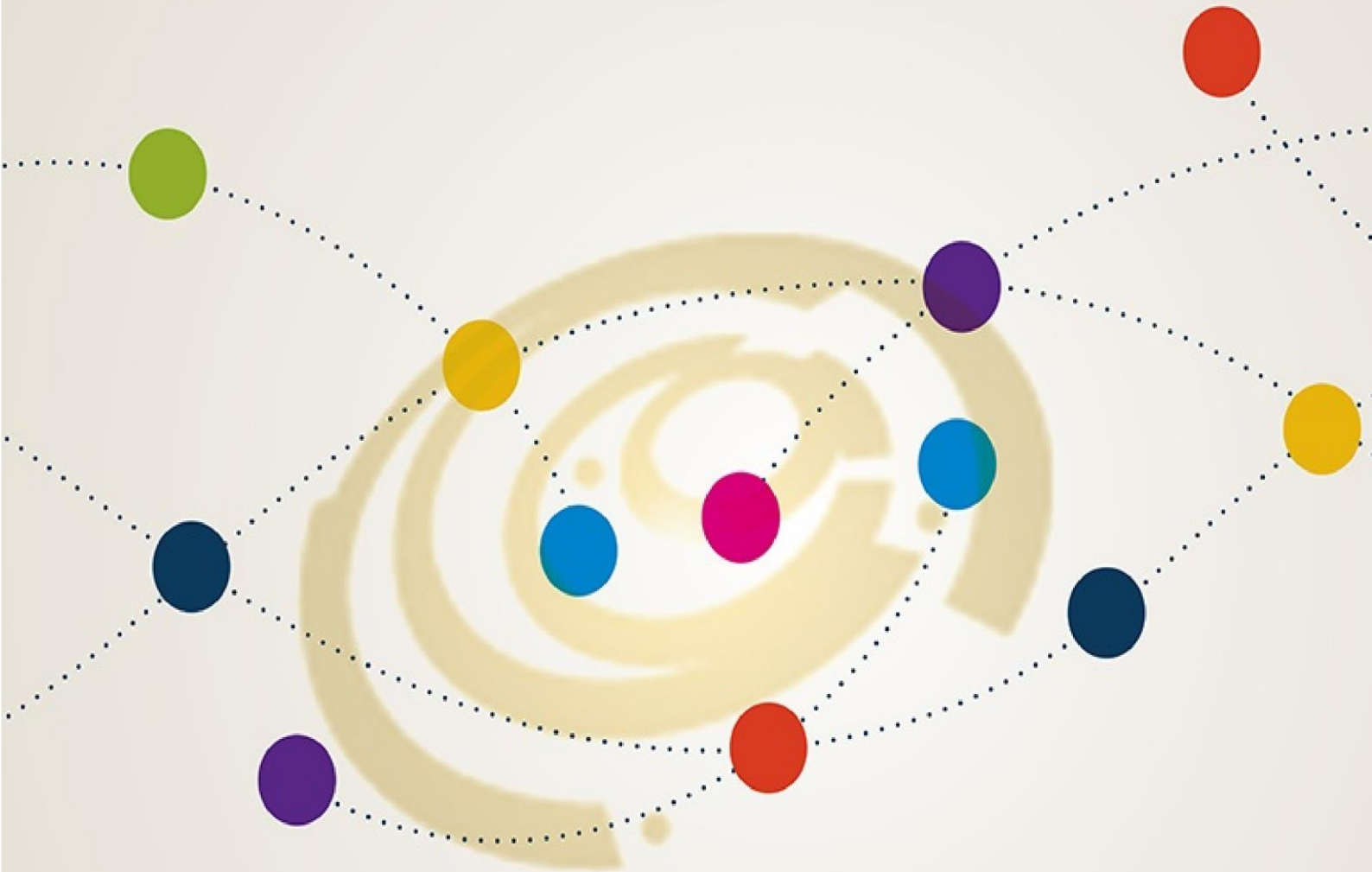


Background Paper and Brief for the Review of Junior Cycle Geography

NCCA

November 2016

Contents

1. Introduction

Geography will be introduced in 2018 as a phase-four subject as part of the new junior cycle. The curriculum and assessment specification for the subject will be published a year earlier, in September 2017. This paper provides a background for the development of the specification for junior cycle geography. It begins by presenting a brief overview of the existing geography syllabus and the format of the Junior Certificate examination.

The paper outlines recent significant initiatives at a national level that are relevant to the development of the new specification. It explores the experience of students and teachers in geography classrooms, and presents some outcomes and trends regarding performance and uptake in the Junior Certificate examination and Leaving Certificate examination. The paper goes on to consider current concerns in the international geography-education literature, some developments in international curricula, and the impact of these on the new specification. Finally, it sets out the brief for the development of the specification.

2. Background

Prior to the introduction of the Junior Certificate in 1989, education in geography was part of the Intermediate and Day Vocational (Group) Certificates. Despite the number of years since the geography course was introduced, the overall aim for that syllabus is still relevant today:

> *'To encourage the development of an informed and responsible person at local, national and international level and to develop the ability of students to use geographical principles in order to understand the constantly changing facts of our world' (Department of Education [DES], 1988, p. 77).*

The Junior Certificate Geography syllabus, 1989

The Curriculum and Examinations Board (CEB), established in 1984, began a general consideration of the junior cycle and geography was included in this review. A key feature of this work was a debate on the status of geography as a core subject. The Association of Geography Teachers of Ireland (AGTI) fervently advocated its importance, particularly at second level. In its response to the CEB's call for views on curriculum *better suited to the current and evolving needs* (AGTI, 1984) the AGTI cited *a direct usefulness to the student because it is concerned with the real world in which he or she lives* (AGTI, 1984, p. 59). The outcome of the review of geography was a draft syllabus in 1986 which was based on eight areas of experience, one of which was Social, Political and Environmental Studies (CEB, 1986, p. 21). The curriculum proposals afforded schools the option of retaining history and geography as two separate subjects or adopting Environmental and Social Studies (ESS) as a combined subject.

However, before these proposals could be progressed further, in 1987 the CEB was replaced by the National Council for Curriculum and Assessment (NCCA) and a new Junior Certificate course was developed. The new syllabus, developed by a committee that included representatives of the teacher trade unions, the AGTI, school management bodies, and the Department of Education, was introduced in 1989 and first examined in 1992 as part of the newly-introduced Junior Certificate. The syllabus was similar in principle to its predecessor but differed in its more practical emphasis, allowing for choice of content to explore local examples and to integrate more active learning methodologies. The new course was divided into three sections, each with a number of key units. For each unit, the key ideas were identified while local, national and international settings were used to illustrate the wide range of areas from where practical examples could be taken (DOE, 1989). Fieldwork was originally a compulsory component but this was later changed and it featured as an option that schools could

choose to include. Guidelines for teachers were also developed to assist teachers in planning for the practical implementation of the syllabus.

One of the key characteristics of the course was its non-linear design which allowed a single setting to be used to develop a number of key concepts. This resulted in a much shorter course than its predecessor and therefore, theoretically allowed students to develop a more in-depth understanding of key concepts. This syllabus remains in place today with the original aims and objectives still relevant.

Table 1: Key concepts of the Junior Certificate syllabus (Source: DOE, 1989, p. 3)

Section	Units
A: The human habitat – processes and change	1. The Earth's surface: Shaping the crust 2. The restless atmosphere: The heat engine 3. The workings of our life support system
B: Population, settlement patterns and urbanisation	1. Population – distribution, diversity and change 2. People on the move 3. Settlement: Changing patterns in where we live – villages and towns 4. Urbanisation: Changing patterns in where we live – cities
C: Patterns in economic activity	1. Primary economic activities: The Earth as a resource 2. Secondary economic activities: Building resources into products 3. Tertiary economic activities: Facilitating our use of resources 4. Economic inequality: The Earth's resources– who benefits?

Section summary

Even though 25 years have elapsed since its introduction, elements of the 1989 syllabus, such as its aim and focus on continuity from primary and progression to senior cycle are still relevant. Its non-linear structure as well as use of local, national and international settings present the subject as one which offers practical, relevant learning experiences.

In reflecting on the experience of 25 years, the development group may wish to reflect on:

- The extent to which the practical, relevant emphasis was achieved?
- The role assessment played in supporting the syllabus's essence?
- The extent to which the curriculum as enacted allowed for practical learning experiences to be introduced?

3. Experience of geography

Geography in the Primary School Curriculum

In primary education, Geography is part of the curriculum area called Social, Environmental and Scientific Education (SESE). Since 1999, geography has been taught in all primary schools from junior infants to sixth class (Pike, 2015). Geography in the primary school is concerned with the three major themes of place, space and environment. The essence of the subject is understanding the world around us and our part in it (NCCA, 1999): this is achieved through a student-centred, engaging curriculum. Geography at primary school places a strong emphasis on the immediate environment to facilitate students' understanding of their surroundings and the wider world. Students are facilitated to develop subject knowledge and skills through a concept approach e.g. 'A sense of place and space'.

The curriculum recommends an integrated approach both within SESE as well as the wider curriculum. This approach is aligned with the non-linear vision of the geography curriculum at second level. Geography education at primary level contributes to the wider education of the student and a 'geography lens' can facilitate greater understanding or complement learning in other areas. In many instances students engage in active construction of their own knowledge through project work. To a degree this is based on the students' own experiences and therefore facilitates understanding of environments and their interrelationships. Geography in the Primary Curriculum encourages teachers to provide hands-on opportunities for students to experience the field of knowledge and investigation associated with the subject.

> *In SESE, children go on field trips to local parks, the cemetery, lakes, woodlands, fish farms, museums (local, national and natural history). Their own local history intermingles with geography when looking at: the physical landscape, architecture, planning, place names, transport, photographs, surveys and when doing project work. (INTO, 2007, p. 53).*

Geography at second level

The Junior Certificate syllabus (1989) and its associated guidelines were well received by teachers, with the level of inbuilt choice being particularly welcomed. *The new junior cycle syllabus in geography is awaited with outstretched arms by the second level teaching fraternity* (Sherwood, 1988). While initially teachers experienced the challenge of adapting to the demands of the new syllabus, over time

teachers' concerns were reduced with the development of course resources and more significantly, increased familiarity with the course and its assessment (Waddington, 2011). The status of geography was again raised in a Green Paper (1992) and a White Paper (1995). A robust campaign was mounted to champion the subject with the result being a consensus to maintain the status of history and geography as core curriculum areas in the junior cycle due to the role they play in promoting and developing students' knowledge and appreciation of their social and cultural heritage and environment.

The NCCA *Junior Cycle Review* progress report (1999) recommended that Geography be retained as part of an interim required course with a view to ensuring that *the emergence of personal identity is in the context of an understanding of communal and national identity and a sense of the place of Ireland in Europe and the world* (NCCA, 1999, p.24). The report also noted, however, that the subjects identified in this interim required course should not be described as 'core' subjects and that the course itself would only pertain *until the optimum time is identified for the change to greater flexibility at school level with less national prescription* (ibid.)

Despite initial challenges and the ongoing issue with its status, subject inspection reports state that geography is well supported in a significant majority of schools. *Looking at Geography*, a study carried out by the DES Inspectorate, reports that in 47 of the 50 schools in which inspections were conducted, geography was a compulsory subject at junior cycle. In the remaining schools, the subject was offered as an option:

> *'While this practice [allowing for the optional study of geography] is permitted it is regrettable that some students, who do not opt to study the subject, may have completed their geographical education on transfer from primary school.' (DES Inspectorate, 2008, p. 6).*

The general findings from the report saw that the majority of geography classes were mixed-ability in nature; the majority of students had access to and completed the Higher level paper; and the allocation of time varied from two to four classes per week (DES Inspectorate, 2008). It should be noted that although the study provides a valuable insight into geography in schools, it is now eight years old.

The number and percentage of candidates taking Junior Certificate Geography from the full Junior Certificate cohort from 2012 to 2015 is shown in Table 2 below. Of the total percentage of the cohorts taking the subject, 80% of those were sitting the Higher level paper (CSO, 2015).

Table 2: Junior Certificate Geography candidature 2012-2015

Year	Junior Certificate candidature	Geography	Percentage of total cohort
2015	59,521	54,908	92%
2014	60,328	55,775	92%
2013	59,822	55,342	93%
2012	58,798	54,029	92%

Although the Department of Education and Science guidelines (1989) strongly recommended the use of fieldwork as an 'integral part' of Junior Certificate Geography, it does not have an assessment weighting. There is an option within the syllabus for a field study. However, at that time, *very little engagement in fieldwork activities was observed in the schools at this level* (DES Inspectorate, 2008, p. 14). It is not clear the extent to which this practice has changed in the intervening years.

Geography at senior cycle, in the majority of post-primary schools, experiences similar high status (DES Inspectorate, 2008) as that of the Junior Certificate. Approximately 50% of students take geography as an examinable subject at Leaving Certificate with 80% of the cohort pursuing the Higher level paper. The current geography course at senior cycle was introduced in 2004 and examined for the first time in 2006. The Leaving Certificate course was designed to align with Junior Certificate Geography and Environmental and Social Studies (ESS) to facilitate transfer of the knowledge and skill base for those transitioning from junior to senior cycle. The Leaving Certificate course is structured with a core, electives and options (options are only a requirement for Higher level candidates). There is also a mandatory geographical investigation that is assessed by means of a report. Teachers responded positively to this syllabus as they viewed the previous syllabus, introduced in 1971, as outdated while the new syllabus afforded teachers an element of autonomy to explore a number of themes (Waddington, 2011). One teacher was quoted from the same study saying *it gives the students a broader base, things like culture, identity, ecology, things like that* (Waddington, 2011, p. 191).

Teachers are the most significant influencers of the geography experiences students receive, in many cases bringing the subject to life for students, igniting interest with challenging, engaging and living lessons. In achieving these outcomes, teachers implement the curriculum in the non-linear active manner reflecting the spirit in which it was developed. A more rigid, linear approach is likely to be less effective in maximising the potential of the syllabus. The Inspectorate's study (2008) noted that more than half the teachers involved had engaged with the support made available by the AGTI; an

encouraging trend as teachers seek to enhance their own professional development and create communities of practice.

ESRI research on student experiences

In 2002, the NCCA commissioned the Economic and Social Research Institute (ESRI) to conduct a longitudinal study of students' experiences of transfer from primary to post-primary education. Initially, the research followed a group of over 900 students in their first three years of post-primary schooling.

While references to geography in the research reports are not numerous, in general terms the study's findings provide valuable insights into students' perceptions of school and—of particular interest in the context of this paper—their experiences of learning. The initial study, *Moving Up, The Experiences of First-Year Students in Post-Primary Education* (Smyth et al., 2004), explored students' engagement with school and their enthusiasm towards their subjects, geography included. However, almost a third of students reported that they were just repeating what they had already done in primary school in first year. The second study, *Pathways Through the Junior Cycle: The Experiences of Second Year Students* (Smyth et al., 2006), sees some students disengaging with school and expressing frustrations with the more 'academically' viewed subjects such as geography. By the time students are in their third year, the final part of the study, *Gearing up for the Exams* (Smyth et al., 2007), clearly shows that *the level of interest in subjects with a practical orientation is striking* (Smyth et al., 2007): these subjects are favoured by students because

> *'they are activity-based, involve learning by doing, have more varied learning environments and, in the case of examination subjects, have assessment methods that include a practical dimension.*

The report notes that

> *the approaches and methodologies associated with these subjects should also be applied across the curriculum, in all subjects and not confined to what have been traditionally viewed as 'vocational subjects'. (Smyth et al., 2007).*

The importance of assessment in supporting this shift should not be underestimated. These findings have significant importance when designing the geography experience for the junior cycle. The Chief Examiner's Reports in 2007 and 2011 at both levels urge students to *develop answers appropriately, when required, with explanations, descriptions and examples* so clearly something is amiss in how students approach assessment (Smyth, et al., 2007).

Research undertaken by the Department of Health and Children (DHC) in 2011 provides further insights into the challenges currently faced by subjects generally at junior cycle level. *A Consultation with Young People on the Reform of the Junior Cycle* (DHC, 2011) revealed that students most enjoyed learning sports, life skills and arts-based activities. Students felt it was important to study more practical subjects in junior cycle, such as computers and construction. They believed there should be more assessment of practical aspects of subjects in the Junior Certificate. The subjects considered easiest to learn in school were those that often involved practical work, such as science and art. Subjects that allowed students to offer their views and personal opinions were also regarded as being easy to learn. In general, students' perception was subjects were too exam-focused and they would like to have seen more emphasis on practical subjects.

Section summary

A significant number of students experience geography from their early schooling all the way to the end of senior cycle and the nature of that experience evolves as they progress through their education. There is, of course, a natural shift when a formal qualification is introduced, as in Junior and Leaving Certificate, with the element of assessment impacting the experience in significant ways.

Students first experience geography through an inquiry-based approach. Students explore their surroundings to acquire geographical understanding through hands-on relevant learning. As students progress into post-primary school, the focus in many instances shifts. Teachers still endeavour to include practical hands-on learning which benefits the student's learning in and enjoyment of the subject but they must also strive to prepare students for success in examinations. Problems can arise when the latter becomes the most prominent influence on practice: when examination performance is prioritised sometimes to the detriment of students' attitudes to the subject and skill development.

Students appear to enjoy subjects where active learning and application of knowledge are the primary methodologies utilised in classes. Learning in Geography would also benefit from being experienced in these ways.

4. Geography for the 21st century

The world is becoming increasingly globalised. This is closing the physical gap between people around the world. Young people will emerge into a world where an office is fast becoming as much a virtual environment as it is a physical one. Young people will transcend physical, language and cultural barriers to collaborate with their colleagues and peers.

Geography sets out to enable the young person to understand physical, cultural, social and historical contexts which can be said to be vital for social cohesion. The rapid transfer of people and information has facilitated a high level of interconnectedness never experienced before. Economic systems are becoming increasing interdependent. Geopolitics plays an integral role in how countries and economic systems interact and operate. Analysing events such as the financial crisis and its repercussions at both a national and international level requires significant engagement with geographical thinking in social, human and economic terms. The current economic climate has heightened the need for informed, proactive young people and citizens who have an awareness of, and can critically assess, the inter-connectivity between the local situation and the wider national and international economic context.

Technology is also vastly improving our ability to react to hazards: efficient prediction, warning and evacuation systems drastically decrease loss of life, property and economic loss. A geographic information system (GIS) can be used to capture and analyse all types of spatial and geographical data. Advances in the technology for predicting hazards from seismic events to weather systems could prove crucial to our future. We are seeing significant improvements in our ability to react to the threats posed from natural hazards. We can track forest fires, map floods, forecast weather events, identify populations at risk, infrastructure in a disaster's path, etc. It is also necessary to have the social and organisational capacity to disseminate information relating to geographical events.

The world as we know it has never been as fast-paced: information is readily available and it is vital to know how to access it, evaluate it and present it. Technology is proving instrumental in this change. Economic and political analysts explore political behaviour through geographical variables from global interactions, natural resources, climate and demography, to name but a few. Digital literacy is now a vital competency underpinning all disciplines. Interactions among people and places are evolving through a variety of media and information can be processed, analysed and stored in radical new ways.

World events, such as the food crisis in 2008, highlight the need for understanding of issues such as global interdependence, consumption, and development. The immigration crisis currently facing the world has also drawn attention to systemic inequalities, both at local and global level. The recognition and understanding of human rights and the responsibilities of global citizens are becoming more relevant. Issues facing the environment, from the climate change phenomenon to water scarcity are changing the ways in which we view and use our natural world. Sustainable development is now imperative to current generations, and may be even more so for future generations.

The classroom marks the dynamic interface between teachers' skill and expertise, the needs and interests of students and geography as a discipline. Learning in this subject, as with others, must contribute to helping students to be creative, critical thinkers with the ability to problem-solve. The inclusion of digital technology objectives in each of the junior cycle key skills highlights the importance digital technology will play in students' lives and the already integral role it is playing in the world of work. Technology can be integrated throughout the teaching and learning process of geography to facilitate a more engaging experience for students. Digital technologies provide the opportunities to amplify geographical learning. Geography education can provide a platform to explore many global trends of the 21st century.

Section summary

Many of the global trends in the 21st century can be better understood through a geography lens. The study of geography can be central to the analysis of economic, human and social systems if presented in relevant terms. The link must be drawn out from the classroom to global issues as they are unfolding. Students who engage as critical thinkers with issues such as hazards, climate change, water scarcity, economic systems etc. are best placed to be a generation to deal with, mitigate and prevent global issues. Many of the core themes applicable to sustainable development are explored through the study of geography and it offers significant opportunities for students to develop as active, informed citizens. It is necessary to empower students to analyse problems and develop creative solutions. Through the medium of geography, students have the ability to develop a skill and knowledge base that could be applied and prove extremely beneficial across a wide range of disciplines.

Technological advancement plays a significant role on many levels:

- It offers opportunities to create a more engaging learning experiences.
- The role technology plays in the world of work, with digital literacy being a common theme across all disciplines.
- Students emerging into a world where they will not only use technology but also have the ability to develop new technologies specific to their discipline.

5. International trends in geography education

Geography in the International Baccalaureate

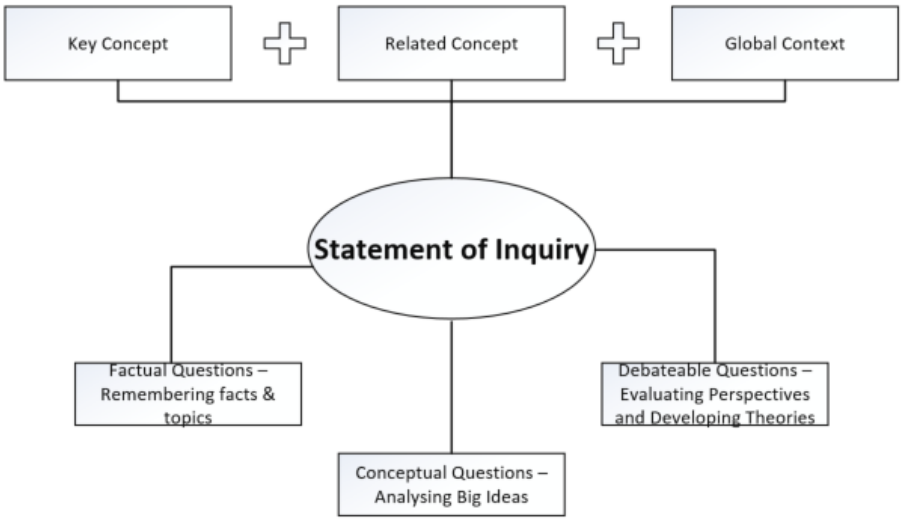
The purpose of the International Baccalaureate (IB) Diploma is to provide a common international curriculum and university entrance credential for children of a geographically-mobile community. The IB Middle Years Programme (MYP) is studied between the age of 11-16 and comprises eight subject groups:

1. Language acquisition
2. Language and literature
3. Individuals and societies
4. Sciences
5. Mathematics
6. Arts
7. Physical and health education
8. Design.

Geography education is part of the subject group 'Individuals and societies'. Each group requires 50 hours of teaching in each year of the programme. As well as the core groups each year, MYP students also study at least one collaborative interdisciplinary unit that involves two or more subject groups and a long-term project. The long-term project is where the student decides what they would like to learn and undertakes a project on their chosen area of interest.

The primary focus in the MYP is on knowledge application. The programme has a strong emphasis on inquiry-based learning and conceptual understanding in global contexts. Schools and teachers are afforded autonomy to create learning programmes that best meet the needs of the learners; they have the freedom to structure individual subjects according to their own context. The programme is framed by a subject group set of aims, key concepts, related concepts and a set of objectives that correlate directly to the features of assessment. Teachers develop learning experiences around statements of inquiry. A statement of inquiry is made up of a key concept, related concepts and global context. The statements of inquiry are then structured into factual questions, conceptual questions and debateable questions.

Figure 1: Construction of statements of inquiry



Across the MYP there are 16 key concepts to be explored. 'Individuals and societies' is framed around four of those concepts:

- Global interactions
- Communication
- Systems
- Time, place and space.

The related concepts promote a deeper understanding of specific disciplines. Related concepts central to geography within the MYP are as follows:

- Causality
- Culture
- Disparity and equity
- Diversity
- Globalisation
- Management/Intervention
- Networks
- Patterns and trends
- Power
- Processes
- Scale
- Sustainability.

Assessment in the MYP is criterion-related, based on four equally weighted assessment criteria.

- knowing and understanding
- investigating
- communicating
- thinking critically.

Curriculum in New Zealand

The curriculum in New Zealand is structured through Values, Key Competencies and Learning Areas. There are eight Learning Areas identified for lower secondary education and they are assessed through Achievement Objectives. Geography is taught through the Learning Area of social sciences. At upper secondary level, students can choose to specialise in geography, building on the previous knowledge of social science and assessed through Achievement Objectives 6-8.

Table 3: The New Zealand Curriculum

<table>
<tr><td colspan="3">Vision
Young people who will be confident, connected, actively involved, lifelong learners</td></tr>
<tr><td>Values
Excellence
Innovation, inquiry and curiosity
Diversity
Equity
Community and participation
Ecological sustainability
Integrity
Respect</td><td>Key Competencies
Thinking
Using language, symbols and texts
Managing self
Relating to others
Participating and contributing</td><td>Learning Areas
1. English
2. The arts
3. Health and physical education
4. Learning languages
5. Mathematics and statistics
6. Science
7. Social sciences
8. Technology
Official languages
Achievement Objectives</td></tr>
<tr><td colspan="3">Principles
High expectations, Treaty of Waitangi, Cultural diversity, Inclusion, Learning to learn, Community engagement, Coherence, Future focus</td></tr>
</table>

The geography curriculum is based on seven key concepts:

1. Environments
2. Perspectives
3. Processes
4. Patterns
5. Interaction
6. Change
7. Sustainability.

Within *The New Zealand Curriculum 2007* schools are afforded significant freedom to design their own local learning programme. The concepts or big areas frame the study of geography. The aim of the course is to equip students with the ability to explore human and natural processes, analyse relationships between these, and draw and present findings. The curriculum design element of the national framework allows teachers to meet these needs through developing a relevant engaging geography experience for students.

Teachers structure the conceptual learning in line with set out Achievement Standards. The underpinning knowledge and skills of this conceptual understanding is externally assessed by the National Certificate of Educational Achievement (NCEA).

Presentation skills feature very prominently, with a significant emphasis on the visual presentation of information.

For example, students can

- present spatial data such as drawing sketches and precise maps, using GIS layering and/or other multi-media to present specific geographic information
- present statistical data via constructing graphs and tables or performing calculations based on data
- complete a complex presentation, which may include multiple forms of data.

Fieldwork skills are also prominent and include being able to gather information from the field using a variety of techniques such as surveying, questionnaires, field sketching, measuring, photographing, interviewing and observing.

An inquiry-based approach is favoured and in particular a social inquiry approach. This *can lead students to develop deeper conceptual understandings* by encouraging students to take on board *perceptions and viewpoints, values and perspectives* which may be different to their own.

Curriculum in Australia

Authorities in Australia have, in recent years, been creating a national curriculum in place of separate state and territorial curricula. Similar to the approach outlined above in New Zealand, the curriculum takes the structure of eight key learning areas at lower secondary and specific subjects are integrated throughout. Students then specialise at upper secondary level. Geography is one of the five subjects in the humanities and social sciences learning area. The new geography curriculum is divided into two strands namely:

- Knowledge and understanding
- Inquiry and skills.

The strands correspond to the four units of study in the geography curriculum. These strands build on the prior experience of geography in social sciences studies at lower secondary level. The units are taught over two years. Each unit comprises a unit description, learning outcomes and content descriptions (organised into the two strands). Students are assessed in line with achievement standards that correlate to the strands within the units.

The units studied in geography at lower secondary are (2 per year 7, 8, 9, 10):

- Water in the world
- Place and liveability
- Landforms and landscapes
- Changing nations
- Biomes and food security
- Geographies of interconnections
- Environmental change and management
- Geographies of human wellbeing.

The units studied in geography at upper secondary are:

- Natural and ecological hazards
- Sustainable places
- Land cover transformations
- Global transformations.

This model is seen to encourage the learning of skills but these skills are embedded in the process of enquiry to ensure that they are taught with a purpose. The *Professional Standards for Accomplished Teaching of School Geography* were drawn up between 2007 and 2010. These standards establish a framework for geography teachers to reflect, individually and collectively, on their professional practice and engage in continuing inquiry into their own teaching. Under these standards,

accomplished geography teaching *engages students in the classroom and in the field and is built on substantive knowledge of the discipline, continual planning, evaluation and renewal of teachers' professional knowledge and practice*. There are nine standards which are designed to cultivate geographical imagination and understanding:

1. Knowing geography and geography curriculum
2. Fostering geographical inquiry and fieldwork
3. Developing geographical thinking and communication
4. Understanding students and their communities
5. Establishing a safe, supportive and intellectually-challenging learning environment
6. Understanding geography teaching–pedagogical practices
7. Planning, assessing and reporting
8. Progressing professional growth and development
9. Learning and working collegially.

Each standard has a set of between four and six aims which enhance teacher professional learning.

There are a number of pedagogical approaches which are especially noteworthy. Geographical thinking is an area which has been developed recently. Here teachers and students develop both the vocabulary and grammar to really engage with the big concepts of the Australian curriculum which are environment, interconnection, change, sustainability, space and place. Linked to the idea of thinking geographically is the role which inquiry-based learning has to play. The goal is that students will become active and informed global citizens. Starting with a problem statement and working through data collection and analysis to reach a conclusion, the inquiry-based approach *enables students to question why the world is the way it is, and reflect on their relationships with and responsibilities for that world*. Finally, there is the role of fieldwork. Fieldwork should allow students to acquire skills which they can apply and master across a range of tasks. They should also make connections and apply their learning. These ideas are reinforced at both primary and secondary level.

Curriculum in Scotland

Geography education is integrated into the social studies curriculum within the Curriculum for Excellence. One of the foundation stones of the Curriculum for Excellence is a broad, general education that includes all of the experiences and outcomes across all curriculum areas. These should be experienced by all students, as far as this is consistent with their learning needs and prior achievements. This should enable and motivate learners to develop to their fullest across the four capacities: to be a successful learner, a confident individual, a responsible citizen and an effective contributor.

Social studies is the curriculum area designed to develop students' understanding of the world by learning about other people and their values, in different times, places and circumstances:

- to develop their understanding of their environment and of how it has been shaped
- to broaden their experience using wider contexts for learning, while maintaining a focus on the historical, social, geographic, economic and political changes that have shaped Scotland
- to learn about human achievements and about how to make sense of changes in society, of conflicts and of environmental issues
- and to develop an understanding and ability to influence events by exercising informed and responsible citizenship (Education Scotland, 2010b).

The social studies experiences and outcomes have been structured under the three main organisers:

- people, past events and societies
- people, place and environment
- people in society, economy and business.

Geography education comes in primarily under the third organiser: 'people, place and environment'. The promotion of active citizenship is a central feature of learning in social studies within the Curriculum for Excellence. Therefore, there is a strong emphasis across all three organisers on encouraging students to develop skills and knowledge to enable and encourage participation. Citizenship is a strong theme throughout 'people in society, economy and business'.

The students' experiences and outcomes are categorised from early/first level to fourth level. As students progress through lower secondary education, they engage with increasingly more detailed and complex concepts in order to achieve the learning outcomes. The fourth-level experiences and outcomes provide possibilities for choice as it is not expected that any one student's programme of

study would include all of the fourth-level outcomes. Schools and teachers offer different combinations of the experiences and outcomes to provide programmes of study that meet each student's needs.

Standard Grade courses were typically taken over a student's third and fourth year in secondary education on completion of lower-secondary education, although this was phased out in 2013 in favour of the Scottish Qualifications Authority's Higher Still system.

Students typically study eight subjects at Standard Grade. At upper secondary, students have the option to specialise in geography at National 3, 4, 5, Higher and Advanced Higher as part of the system of qualifications offered by the Scottish Qualifications Authority (SQA). Within the geography course, students study three mandatory units and a course assessment depending on the level they are taking:

- The physical environment
- The human environment
- International issues.

Students are assessed through a combination of written exam and a coursework item such as an assignment, performance or practical activity. Each unit is aligned to specific outcomes and assessment standards: these are used to develop the specific curriculum relevant to the school.

Curriculum in Finland

Finland has been reflecting on the aims of their education system recently and as a result is renewing their national core curriculum for basic education. This basic education is for students from 7-16 years of age. The renewed core curriculum was completed at the end of 2014. New local curricula that are based on this core curriculum should be prepared by the beginning of school year 2016–2017 (Halinen, 2014).

In Finland the focus is on learning rather than testing. There are no national tests for students in basic education in Finland. Instead, teachers are responsible for assessment in their respective subjects on the basis of the objectives included in the curriculum. The only national examination, the matriculation examination, is held at the end of general upper-secondary education. Sample evaluations are carried out in different subject areas across a range of districts over a number of years.

The evaluations in geography in 1998 and in 2011 showed that interactive learning was seen as essential and that an inquiry-based learning approach was desired. There was also a desire to

reposition fieldwork, ICT and GIS as important aspects of geographical education. Accordingly, geo-media (or geographic media) is an important new perspective, added as part of the core competences all students must develop. Geo-media is described as media that use the spatial localisation of information, i.e. that use geo-information (GI). It includes all representations of space, covering a wide range of outputs from verbal description, multimedia to visualisation (Gryl & Jekel, 2012). It is important in developing ICT, problem-solving, critical analysis and other important competences.

Another radical departure will be the development of topics in place of subject-specific lessons. For example, there might be cross-topic subjects in geography, such as the EU, which would merge elements of economics, history (of the countries involved), languages and geography. Another example could be climate change. This could encompass economic theory (globalisation), history (colonisation), business studies (mobility of industry) and biology (impact of climate change on distinct biomes). Passive classrooms will also disappear. Instead there will be a more collaborative approach, with students working in smaller groups to solve problems while improving their communication skills.

National Geographic Society

A great deal of research on geography education in the USA has come from the National Geographic Society. The long-term mission of National Geographic Education is to build a geo-literate society: a society prepared to make critical 21st century decisions about places near and far. To that end, its resources and programs for teachers and students are developed with the goal of leading to meaningful changes in understanding about wide-ranging topics in geography, social studies and science, and students' roles as citizens of the world. One of its projects was *Creating a Road Map for 21st Century Geography Education* (Bednarz et. al., 2013). It contained 10 key recommendations to encourage effective instruction in geography:

- Focus instructional materials on big ideas and practices of contemporary geography across subjects and grade levels.
- Design instructional materials that build upon students' prior geographic knowledge and experience and challenge students' thinking.
- Develop instructional materials that use teaching strategies to engage all learners in meaningful explorations of geography.
- Design instructional materials to be learning tools for teachers.

- Develop and implement professional development programs that enrich teachers' knowledge of contemporary geography and how to teach it.
- Design and implement coherent and sustained professional development programs with clear and measurable goals.
- Enhance preservice teacher education programs to emphasise teaching geography across subjects and grade levels.
- Develop and fund extensive research and evaluation in geography instructional materials and professional development.
- Create opportunities for sustained and authentic collaboration among geographers, education researchers, and practitioners.
- Design and disseminate tools and exemplars to inspire and support educators, developers, and policy-makers in leading the implementation of these recommendations.

Geo-literacy is another concept which the National Geographic Society is keen to advance. Geo-literacy is a new term for a long-standing idea consisting of three components: interactions, interconnections and implications. It is the ability to use geographic understanding and geographic reasoning to make far-reaching decisions (National Geographic Society, 2016). It has also appeared in slightly altered forms in both Finland and Australia.

Section summary

Prominent themes emerge when looking at international contexts and good practice in relation to developing geography curricula. Among those which will certainly be of interest to the development group include the following:

- Inquiry-based learning has been identified across countries as a meaningful way of challenging students and promoting understanding. This should build on students' knowledge and challenge their thinking.
- Teachers (both individually and collectively) should engage in a process of critical reflection in order to develop their practice.
- Lessons must become more interactive and discussion-based.

- Students should develop the grammar and vocabulary to keep pace with a rapidly-changing world and discuss these changes with a critical approach. Geo-literacy should become a staple of classroom instruction.
- Students should be encouraged to develop skills, apply them in a variety of situations and make connections between different phenomena in order to develop themselves as global citizens.
- Students and teachers alike must keep pace with new technologies, especially in the areas of ICT and GIS.
- Teachers should look at developing topics that might encompass a number of lessons. This would involve looking at big ideas or concepts and utilising their professional expertise to decide what learning experiences would help the students achieve the goals for that topic.

6. National strategies

Education for Sustainability

Education for Sustainability: The National Strategy on Education for Sustainable Development in Ireland, 2014-2020 provides a framework to support the contribution that the education sector is making and will continue to make towards a more sustainable future:

> *The National Strategy on Education for Sustainable Development aims to ensure that education contributes to sustainable development by equipping learners with the relevant knowledge (the 'what'), the key dispositions and skills (the 'how') and the values (the 'why') that will motivate and empower them throughout their lives to become informed active citizens who take action for a more sustainable future. (DES, 2014, p. 3)*

In referring to education, a key objective of the strategy is to provide learners with the knowledge, dispositions, skills and values that will motivate and empower them to become active citizens and to take measures to live more sustainably. This will be done at post-primary level through the development of key skills and the integration of Education for Sustainable Development (ESD) themes across relevant subjects. There are significant opportunities for geography education in the junior cycle to reflect these in the appropriate sections. Students will explore economic, social and environmental systems at local, national and international levels. Geography provides opportunities for students to engage with such issues as human rights, energy usage, economic activity and development. Students will be empowered to play an active role in their education, promoting awareness of global issues while encouraging participation in local systems of policy. Through the medium of geography, students will explore geopolitics, analysing patterns and processes, and developing understanding of such systems. Geography also presents a platform for students to develop interest in and awareness of youth projects available to them: some examples include the Green Schools Programme, the Development Education Programme, the Young Environmentalist Awards and the Global Youth Leaders for Change Programme. Many of the specific themes related to sustainable development will be introduced to students through the study of geography. There are significant cross-overs between possible geography junior cycle statements of learning and key skills as recommended in the ESD strategy.

Literacy and numeracy

Literacy and Numeracy for Learning and Life (2011) is the national strategy to improve literacy and numeracy standards among children and young people in the education system. This strategy

> *…seeks to address significant concerns about how well our young people are developing the literacy and numeracy skills that they will need to participate fully in the education system, to live satisfying and rewarding lives, and to participate as active and informed citizens in our society. (DES, 2011, p. 7)*

According to the strategy, published in 2011, the development of students' literacy and numeracy skills in post-primary schools is not just the responsibility of teachers of languages and mathematics. Teachers of all post-primary subjects have an important role to play in developing and consolidating students' literacy and numeracy. Geography education at junior cycle is well-placed to fulfil the objectives of the national literacy and numeracy strategy. The concept of literacy

> *…encompasses the capacity to read, understand and critically appreciate various forms of communication including spoken language, printed text, broadcast media, and digital media. (DES, 2011, p. 8)*

Numeracy encompasses

> *…the ability to use mathematical understanding and skills to solve problems and meet the demands of day-to-day living in complex social settings. (DES, 2011, p. 8)*

There are many opportunities for students to develop their literacy and numeracy through geography. Students will encounter new terminology through the acquisition of specific knowledge. Through exploring geographical patterns in relation to natural and human processes, participating in geographical investigations as well as numerous class activities, students will communicate with groups, analyse data to prepare written reports as well as oral presentations, manipulate data to draw conclusions using graphs and charts, search for information, evaluate it and present it. Through these activities students will develop their literacy and numeracy skills.

Students experience significant changes in content and teaching approaches between primary and post-primary education. One of the aims of the literacy and numeracy strategy is to bridge this transition in order to avoid the discontinuity in approach which can result in some students failing to advance in the early stages in junior cycle, thereby impeding the development of their skills in literacy and numeracy. In the future, the challenge for the geography classroom will be to make the links to literacy and numeracy more explicit and to promote these essential skills as students make the transfer from primary to post-primary education. A further challenge is for the geography classroom

to build on skills such as critical thinking, leadership and teamwork introduced to students at primary level. In this way geography education can build on the approach to teaching and learning at primary level and enrich the learning experience in post-primary schools.

The geography classroom also provides a rich context for, and can contribute significantly to, the development of the key skills grounded in the *Framework for Junior Cycle.* As well as Being literate and numerate, it can facilitate the development of the skills of Managing myself, Being creative, Communicating, Working with others, Managing information and thinking, and Staying well (particularly in relation to using ICT safely). Geography at junior cycle can fully exploit the opportunities for enhanced teaching and learning inherent in the framework and can contribute significantly and effectively to the realisation of the relevant statements of learning.

Section summary

Geography is well-placed to address the national strategies on Education for Sustainable Development and Literacy and Numeracy. Geography provides an excellent platform to develop understanding and promote awareness of the themes explored across sustainable development. Many of the themes can be integrated throughout the course and this will be imperative if the learning experience is to promote student involvement and engagement with the significant themes. When dealing with integrated themes students will analyse patterns and processes in order to develop their geographical competencies. In doing so they use and understand specific terminology, communicate with others and present data in both numerical and text format. Through this experience there will be specific emphasis on literacy and numeracy skill development.

7. Assessment trends

Leaving Certificate

Leaving Certificate Geography is studied by approximately 50% of all students presenting for the Leaving Certificate examination: this figure has remained consistent for over ten years.

Table 4: Leaving Certificate Geography candidature 2012-2015

Year	Leaving Certificate candidature	Geography	Percentage of total cohort
2015	55,044	25,132	45.6%
2014	54,025	25,123	46.5%
2013	52, 767	25,294	47.9%
2012	52,592	25,734	48.9%

Exam structure at Leaving Certificate

Geography is assessed by means of a coursework component worth 20% and a written final examination of two hours and fifty minutes' duration worth 80%, with a combined mark allocation of 500 marks.

Geographical investigation

The data presented in the Chief Examiner's Report (2012) showed similar insights for both Higher and Ordinary level with a significate proportion of candidates (92%) completing the geographical investigation on 'A study of one landform evident on the Irish landscape formed by geomorphic processes'. Most students concentrated on meanders and V-shaped valleys in the river context or sea cliff and beach in the coastal context. An occasional study of glacial and karst landforms was also in evidence.

Table 5: Leaving Certificate Geography (Ordinary level & Higher level) 2012—Frequency of uptake of geographical investigation topics based on the sample

List of geographical investigation topics 2012	Frequency of uptake
A study of one landform evident on the Irish landscape formed by geomorphic processes.	92%
Study the relationship between economic activity and traffic flow in a local area.	2%
Analyse the change in land-use patterns from the Central Business District (CBD) outwards in a local area over time.	3%
Water pollution – A study of a local stream or river.	1%
Demographic change in a local setting.	1%
A survey of the distribution of economic activities past and present in a local area.	1%

Junior Certificate

The Junior Certificate examination takes the structure of one two-hour examination comprising two sections. Section 1, worth 60 marks, contains 20 short-answer questions (with internal choice within 4 questions). Section 2 is worth 90 marks and contains 5 structured questions (known informally as long questions), candidates choose three to answer. Both Higher and Ordinary level take the same structure. Statistics from the State Examinations Commission report that over 80% of all candidates from 2012-2015 sat the Higher level exam. Students perform well in the exam, with the highest percentage receiving an A, B or C. The A in Higher level Geography remains one of the more difficult grades to achieve. Tables 6 and 7 below show the performance of candidates in the years 2012-2015.

Table 6: Grade outcomes for Higher level Junior Certificate Geography 2015-2012 (Grade figures are given as percentages)

Year	Total	A	B	C	ABC
2015	46,229	8	30.8	35.7	74.5
2014	46,881	8.8	31.3	32.1	72.2
2013	45,939	8.9	28.5	33.9	71.3
2012	44,509	9.1	32.9	35.2	77.2

Table 7: Grade outcomes for Ordinary level Junior Certificate Geography 2012-2015 (Grade figures are percentages)

Year	Total	A	B	C	ABC
2015	8,679	8.6	35.8	34.6	79
2014	8,894	8.6	36.4	33.4	78.4
2013	9,403	8.5	33.3	34.5	76.3
2012	9,520	8.8	35.9	3	77.2

There is no particular trend when analysing the popularity of topics within the exam, however there appears to be some preference shown towards the ordnance survey and aerial photography in Higher level exams over the years. These findings echo ESRI reports on students' preference for the more active elements of courses. The geographical mix question is always popular, with students benefiting from the element of choice.

Data presented in the Chief Examiner's Report (2011) states that students in the majority of cases are well-prepared for the exam. The report demonstrates students' difficulty in presenting arguments or including more detail in statements: this could be seen in the Higher-level paper regarding 'greenhouse effect' explanations and in both level papers in relation to providing evidence for answers on ordnance survey questions. Although the report was carried out in 2011, judging by the similarity in overall achievement and numbers studying the subject at both levels, it is fair to say there are many conclusions that may be similar today.

Table 8: Candidates' question preferences

Year	Popularity		
	1st	2nd	3rd
2011			
OL	Geographical mix	Ordnance survey map	Economic activity
HL	Geographical mix	Aerial photograph & ordnance survey map	Physical geography
2003			
OL	Life in modern cities	Ordnance survey map	Aerial photograph
HL	Ordnance survey map	Tourism	Population
2000			
OL	Ordnance survey map	Ordnance survey map	Economic activity
HL	Ordnance survey map	Aerial photograph & ordnance survey map	Economic activity

Section summary

Geography is one of the most studied subjects at Leaving Certificate, with a significant percentage of students sitting the Higher-level paper. The element of coursework in the form of the geographical study can be seen as an important factor in students' attraction to the subject.

At Junior Certificate, over 90% of the overall candidates complete a geography exam with approximately 80% of that figure sitting a Higher-level paper. In addition, in the most recent Chief Examiner's Report (2011) it was noted that many students sitting the Ordinary-level paper demonstrated the ability to sit the Higher-level paper. Also noted on the report was that students demonstrate a good ability to present general answers but found it difficult to expand answers into detail. The questions to which students responded very well were in Section 1; short questions, geographical mix, and maps and photos. This, combined with the trend of very high numbers achieving B and C grades with far fewer (8.4%) achieving A, may reflect students' level of understanding and/or ability to apply knowledge and make links between a number of areas.

8. Geography specification in the new junior cycle

While some may have distinct characteristics, arising from the area of learning involved, all junior cycle specifications for subjects and short courses will have a number of features in common. They will

- be outcomes-based
- reflect a continuum of learning with a focus on learner progression
- set out clear expectations for learning
- provide examples of those expectations
- include a focus on all eight key skills
- strive for clarity in language and for consistency in terminology.

To improve the connection with learning and teaching in primary school, these features are shared with the Primary School Curriculum. The specification for each junior cycle subject and short course will include:

1	Introduction to junior cycle	This will be common to all specifications and will summarise the main features of the *Framework for Junior Cycle*.
2	Rationale	This will describe the nature and purpose of the subject as well as the general demands and capacities that it will place on, and require of, students. The text will, as appropriate, aim to draw attention to challenges and any access issues associated with study of the subject for students with specific needs or disabilities.
3	Aim	A concise aim for the subject will be presented.
4	Links with: Statements of learning Key skills	How the subject is linked to central features of learning and teaching at junior cycle will be highlighted and explained.
5	Overview: Strands Learning outcomes	An overview of the subject will illustrate how it is organised and will set out the learning involved in strands and learning outcomes.
6	Expectations for students	These will be linked with groups of learning outcomes and will relate to examples of student work. The examples will be annotated, explaining whether the work is in line with, ahead of, or behind expectations for students.
7	Assessment and reporting	This section refers to both formative and summative assessment. It outlines the assessment component/s through which students will present evidence of learning on an ongoing basis, and for the purposes of recording achievement for the Junior Cycle Profile of Achievement (JCPA)[1]. This description of assessment is supplemented by separate assessment guidelines for use in second and third years.

[1] The JCPA is the new award for all junior cycle students. It will replace the current award, the Junior Certificate.

9. Brief for the review of junior cycle geography

The review of junior cycle geography will lead to the production of a specification in line with the template above. The principles of the *Framework for Junior Cycle* will inform and underpin the key decisions made in the development of the specification for geography. The specification will be at a common level. It will be designed to be taught and assessed in a minimum of 200 hours and structured or organised around strands and learning outcomes.

The **key skills** of junior cycle will be embedded in the learning outcomes of the specification, as appropriate.

The specification will be developed in alignment with the statements of learning, including that the student

- listens, speaks, reads and writes at a level of proficiency that is appropriate to his/her ability
- appreciates and respects how diverse values, beliefs and traditions have contributed to the communities and culture in which she/he lives
- understands the origins and impacts of social, economic and environmental aspects of the world around him/her
- has the awareness, knowledge, skills, values and motivation to live sustainably
- observes and evaluates empirical events and processes and draws valid deductions and conclusions
- uses technology and digital media tools to learn, communicate, work and think collaboratively and creatively in a responsible and ethical manner
- values what it means to be an active citizen, with rights and responsibilities in local and national contexts.

It will be completed for autumn 2017.

The development of the new specification will:

- take account of current research and developments in the field of geography education, emerging understandings of the content and nature of geography in the context of students' stages of development, and the need for alignment with the ongoing development of the literacy and numeracy strategy.
- address continuity and progression. It will consider whether geography should be taught from a broader, general base in first year with a particular focus on consolidation of learning from primary school and on the development of students' understanding of cross-curricular links, skills and attitudes that geography can form when combined with other subjects. For example, the representation of information in pictorial format in art, an understanding of social and political change through geographic maps/charts and the promotion of concepts such as democracy and human rights through CSPE.
- allow for in-depth exploration of selected topics and the practical development of geography-related skills appropriate to 12- to 15-year-old students.

More specifically, the development of the new specification will consider:

- How the aims for junior cycle geography can be set out in line with international practice and devised to match the stage of conceptual and imaginative development of 12-15 year olds.
- How the new specification will align with both the Primary School Geography curriculum, Transition Year, and Leaving Certificate Geography syllabus. Some consideration may be given to the development of bridging units to be commenced by students in sixth class and completed at the start of first year. This may assist in reducing the negative impact of repetition and instead build positively on prior knowledge and understanding.
- How the specification, in its presentation and language register, can be strongly student-centred, having a clear focus on what the students can do to develop and demonstrate their geographical skills, capabilities, and achievements.
- How practical, inquiry-based learning will be promoted by the recommended methodologies.
- The possible inclusion of thematic units focusing on local exemplars before broadening their scope to national and international exemplars.

- How personal and societal interests about geography can be used as a reference point from which the curriculum is specified.
- How it will assist in the development of student self-directed learning.
- Modes of assessment consistent with the aims of the course and the principles of the *Framework for Junior Cycle*.
- How their study of geography can develop students' conceptual, collaborative and communication skills.
- How the specification will develop a student's understanding of key concepts.
- The use of technology and digital media tools in junior cycle geography learning and teaching.
- How geography can assist in the development of the concept of lifelong learning.

The work of the Geography Development Group will be based, in the first instance, on this brief. In the course of its work and discussions, elaborations of some of these points and additional points may be added to the brief.

References

Association of Geography Teachers of Ireland (AGTI). (1980). *Minutes of central branch committee.* Meeting, 10 September.

Association of Geography Teachers of Ireland (AGTI). (1984). Submission from the Association of Geography Teachers of Ireland to the Curriculum and Examinations Board (October, 1984). *Geographical Viewpoint, 13*, 58-62.

Bednarz, S.W., Heffron, S., & Huynh, N.T. (Eds.). (2013). A road map for 21st century geography education: Geography education research (A report from the Geography Education Research Committee of the Road Map for 21st Century Geography Education Project). Washington, DC: Association of American Geographers. Retrieved on September 20 2016 from

http://gisgeo.org/assets/files/NGS_RoadMapConcept_GERC_07.pdf

Curriculum and Examinations Board (CEB). (1984). *Issues and structures in education*. Dublin: CEB.

Curriculum and Examinations Board (CEB). (1986). *In our schools: A framework for curriculum and assessment*. Dublin: CEB.

Central Statistics Office (CSO) for Department of Education and Skills. (2015). *EDA95: Junior certificate results by sex, details of results, and year*. Retrieved September 21 2016 from

http://www.cso.ie/px/pxeirestat/Statire/SelectVarVal/Define.asp?maintable=EDA95&PLanguage=0

Department of Education and Skills. (2011). *Literacy and numeracy for learning and life.*

Retrieved September 14, 2016 from
http://www.education.ie/en/Schools-Colleges/Information/Literacy-and-Numeracy/lit_num_strat.pdf

Department of Education (DOE). (1988). (et seq.). Dublin: The Stationery Office.

Department of Education (DOE). (1989). *The junior certificate geography syllabus.* Dublin: The Stationery Office.

Department of Education and Science (DES). (2004). *Geography leaving certificate: Guidelines for teachers.* Dublin: The Stationery Office.

Department of Health and Children. (2011). *A consultation with young people on reform of the*

junior certificate. Retrieved September 15 2016 from

http://www.ncca.ie/en/Curriculum_and_Assessment/Post-Primary_Education/Junior_Cycle/Junior_cycle_developments/Dáil_na_nÓg_report_.pdf

Department of Education and Science Inspectorate (DES Inspectorate). (2008). *Looking at geography – Teaching and learning in post-primary schools.* Retrieved September 07 2016 from

http://www.education.ie/en/Publications/Inspection-Reports-Publications/Evaluation-Reports-Guidelines/insp_looking_at_geography0908_pdf.pdf

Department of Education and Skills (DES). (2014). *"Education for sustainability":The national strategy on education for sustainable development in Ireland, 2014-2020*. Retrieved September 20 2016 from

https://www.education.ie/en/Publications/Policy-Reports/National-Strategy-on-Education-for-Sustainable-Development-in-Ireland-2014-2020.pdf

Department of Education and Skills (DES). (1989). *Junior certificate geography – Guidelines for teachers.* DES Retrieved on September 14 2016 from

https://www.education.ie/en/Schools-Colleges/Information/Curriculum-and-Syllabus/Junior-Cycle-/Syllabuses-Guidelines/jc_geography_guide.pdf

Education Scotland. (2010a). *Curriculum for excellence: Social studies–Experiences and outcomes.* Retrieved September 21 2016 from

http://www.educationscotland.gov.uk/learningandteaching/curriculumareas/socialstudies/eandos/index.asp

Education Scotland. (2010b). *Curriculum for excellence: Social studies–Principles and practices.* Retrieved September 21 2016 from

http://www.educationscotland.gov.uk/learningandteaching/curriculumareas/socialstudies/principlesandpractice/index.asp

Gryl, I. Jekel, T. (2012). *Racketeering Geoinformation in Secondary Education. Toward a Spatial Citizenship Approach.* Cartographica 47 (1), 18 – 28.

Holland, E. (1981). *Geography in secondary schools: Some changes in methodology during the last twenty years.* Geographical Viewpoint, 10, 63-73.

Irish National Teachers' Organisation (INTO). (2007). *Approaches to teaching & learning.* Dublin: INTO.

Ministry of Education. *The New Zealand Curriculum Online (2007). Social sciences*. Retrieved August 20 2013 from http://nzcurriculum.tki.org.nz/Curriculumhttp://nzcurriculum.tki.org.nz/Curriculum-

documents/The-New-Zealand-Curriculum/Learning-areas/Social-sciencesdocuments/The-New-Zealand-Curriculum/Learning-areas/Social-sciences

National Council for Curriculum and Assessment (NCCA). (1999). *The junior cycle review progress report: Issues and options for development.* Dublin: NCCA. Retrieved September 07 2016 from

http://www.ncca.ie/uploadedfiles/JuniorCycleReview/CurriculumReviewatJuniorCycle.pdf

NCCA. (1999). *Geography. Social, environmental and scientific education teacher guidelines.* Dublin: NCCA. Retrieved September 08 2016 from

http://www.ncca.ie/uploadedfiles/Curriculum/Geog_Gline.pdf

National Geographic Society. *Why is Geo-Literacy Important?*

Retrieved November 01 2016 from

http://nationalgeographic.org/media/why-is-geo-literacy-important/

Pike, S. (2015). Primary geography in the Republic of Ireland: Practices, issues and possible futures. *Review of International Geographical Education Online*, *5*(2), 185-198.

Semple, S., & Dawson, E. (2008). Geography in the international baccalaureate. *Journal of Geography, 107*(4/5), 198-201.

Sherwood, D. (1988). Geography at second level: content and aims. In R. Alexander, and D.A. Gilmor (eds.), *Geography in education in the Republic of Ireland*. Dublin: Geographical Society of Ireland.

Smyth, E., McCoy, S., Darmody, M. (2004). *Moving up. The experiences of first-year students in post-primary education.* Dublin: Liffey Press in association with the ESRI.

Smyth, E., Dunne, A., McCoy, S., Darmody, M. (2006). *Pathways through the junior cycle: the experience of second year students.* Dublin: Liffey Press in association with the ESRI.

Smyth, E., Dunne, A., Darmody, M., McCoy, S. (2007). *Gearing up for the exam? The experience of junior certificate students.* Dublin: Liffey Press in association with the ESRI.

State Examinations Commission (SEC). (2010). *State examinations statistics.* Retrieved on September 09 2016 from

http://www.examinations.ie/statistics/ statistics_2008/LCGrade_over_3_years.pdf

SEC. (2011). *Chief examiner's report: Junior certificate geography 2011.* Retrieved on September 08 2016 from

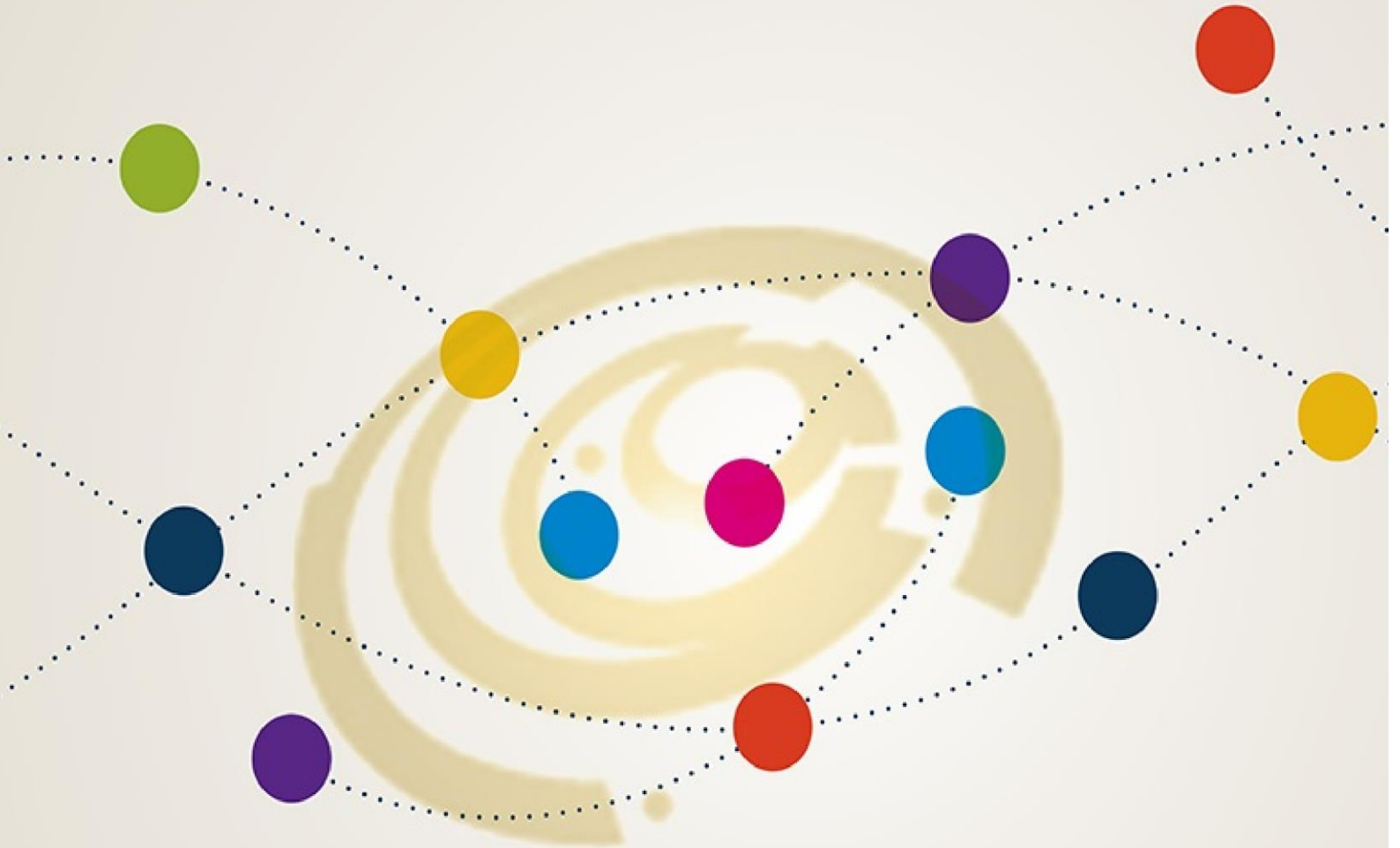
https://www.examinations.ie/archive/examiners_reports/JC_Geography_2011_Chief_Examiners_Report.pdf

SEC. (2015). *State examinations commission statistics.* Retrieved on September 26 2016 from

https://www.examinations.ie/?l=en&mc=st&sc=r15

Waddington, S.B. (2011). Syllabus change, student learning and teacher experiences. *New Zealand Geographer (2010) 66,* 189-195. Retrieved on September 13 2016 from

http://eprints.maynoothuniversity.ie/3071/1/SW_Syllabus.pdf



NCCA