Australian Curriculum: Geography

A new dawn, especially for Primary geography!
Introduction

Click here for Mick’s background.
What is Geography?
The purpose of geography is to provide 'a view of the whole' earth by mapping the location of places."

Ptolemy (83 AD – 161 AD)
Greek Mathematician, Geographer, Astronomer, and Astrologer

"Synoptic discipline synthesizing findings of other sciences through the concept of Raum (area or space)."

– Immanuel Kant, c. 1780

"Geography is concerned with the locational or spatial variation in both physical and human phenomena at the earth's surface"

Kenzer, 1989

There is more to geography than meets the eye!!
• **Geography** (from Greek γεωγραφία - *geographia*, lit. "earth describe-write") is the study of the lands, features, inhabitants, and phenomena of Earth. A literal translation would be "to describe or write about the Earth".

• Traditionally, geographers have been viewed the same way as cartographers and people who study place names and numbers.

• Although many geographers are trained in toponymy (place names), cartography and graphicacy, this is not their main preoccupation.

• Geographers study the spatial and temporal distribution of phenomena, processes and features as well as the interaction of humans and their environment.

“God created war so that Americans would learn geography.” — Mark Twain
As space and place affect a variety of topics such as economics, health, climate, plants and animals; geography is highly interdisciplinary.

“...mere names of places...are not geography...know by heart a whole gazetteer full of them would not, in itself, constitute anyone a geographer. Geography has higher aims than this!

William Hughes, 1863
Geography as a discipline can be split broadly into two main subsidiary fields: human and physical geography.

**Human geography** focuses on the built environment and how humans create, view, manage, and influence space. **Physical geography** examines the natural environment and how climate, organisms, soil, water, and landforms produce and interact.

The difference between these approaches led to a third field, Environmental geography, which combines physical and human geography and looks at the interactions between the environment and humans.
Geography is…..

“… a structured way of exploring, analysing and understanding the characteristics of the places that make up our world, using the concepts of place, space and environment, interconnection, sustainability, scale and change”

From the draft ACARA Scope and sequence for geography, October 2012
GEOGRAPHY RATIONAL FROM THE DRAFT SCOPE AND SEQUENCE

ACARA Australian Curriculum: Geography draft scope and sequence
Why study geography?
QUESTIONS TO MUSE OVER

1. What’s this thing called Geography?
2. How has the world changed over the past 30 years?
3. What makes modern Geography modern Geography?
5. How does the Australian Curriculum: Geography shape up to the 21\textsuperscript{st} Century challenge?
What’s this thing called Geography?

“What Geography was my favourite subject at school.”

Then what happened?

Over the past 30 years we have seen a drastic decline in geography.

“Geography lost its way”: Peter Hill ACARA CEO

WHAT DID THEY (YOU MAYBE) LIKE ABOUT GEOGRAPHY?
GEOGRAPHY AS IT WAS......
cities
countries
maps
regions
places
globes
people
land
coasts
water
rivers
farming
excursions
physical
cultures
exploration
roads
mountains
diagrams
scale
“Community perception of what modern geography is …

“I like geography. I like to know where places are.” - Tom Felton

“Geography is just physics slowed down, with a couple of trees stuck in” - Terry Prachett

“I get to go to overseas places, like Canada.” — Britney Spears

“The global importance of the Middle East is that it keeps the Far East and the Near East from encroaching on each other.” - Dan Quayle
NAME A FAMOUS GEOGRAPHER?

WHAT ABOUT A FAMOUS AUSTRALIAN GEOGRAPHER?

Eratosthenes (276BC - 194BC) - calculated the size of the Earth.
Ptolemy (c.90–c.168) - compiled Greek and Roman knowledge into the book Geographia.
Gerardus Mercator (1512–1594) - innovative cartographer produced the Mercator projection
Alexander von Humboldt (1769–1859) - Considered Father of modern geography, published the Kosmos and founder of the sub-field biogeography.
Carl Ritter (1779–1859) - Considered Father of modern geography. Occupied the first chair of geography at Berlin University.
William Morris Davis (1850–1934) - father of American geography and developer of the cycle of erosion.
Yi-Fu Tuan (1930-) - Chinese-American scholar.
David Harvey (1935-) - Marxist geographer and author of theories on spatial and urban geography.
Michael Frank Goodchild (1944-) - prominent GIS scholar.
Doreen Massey (1944-) - Key scholar in the space and places of globalisation.
Ellen Churchill Semple (1863–1932) - America's first influential female geographer.
What do these tell you about the perception of geography in the community

"Old geographers never die, they just lose their bearings."
"Old geographers never die, they just become legends.”

Q: What city always cheats at exams?
A: Peking

Q: Which has the higher IQ, latitude or longitude?
A: Longitude; it's got 360 degrees!

Q: What is round at each end and high in the middle?
A: Ohio.

Knock, knock, who's there?
Yukon
Yukon who?
Yukon never get bored of geography

Boy and girl at their studies

Hopkins, Everard (1893)

Christobel: Say, Jack, how ever do you define the Equator?
Jack: Isn't it the managerie lion that goes round the world?
The perception of geography as a discipline

The philosophy of the school was quite simple - the bright boys specialised in Latin, the not so bright in science and the rest managed with geography or the like.

Aaron Klug, Chemist, Past President of the Royal Society and Nobel Prize winner

"As a young man, my fondest dream was to become a geographer. However, while working in the customs office I thought deeply about the matter and concluded it was too difficult a subject. With some reluctance I then turned to physics as a substitute."

Albert Einstein

However, this quote was actually written by a Professor of Geography at Ohio State University in 1970.
Ask someone about ‘geography’ and their response would probably be that it is an academic subject dealing with countries of the world and their political and physical characteristics. However, over the past 15 to 20 years there has been a massive revolution happening in both the private and public sector, as geography has proved to be a fundamental part of the processes on which these commercial and non-commercial organisations rely.

Roy Laming ESRI (UK) CEO
A Georevolution has gone on in front of our eyes over the past 15 years

The capacity of spatial systems means that over 80% of all data is now attached to place. We expect to see a map and in turn we expect to be able to interpret the map. This has become if more important than making a map!! While this revolution has been going on, geography has been declining in our schools! Why? This is a question the spatial industry keeps asking educators – we have a shortage in ‘spatially enabled people’ for the workforce. We need more Spatiallogists!
This is data attached to place – we call it spatial data and it is the raw material for modern geography.

http://www.publicprofiler.org
CLASSROOM TECHNOLOGY IN THE 70'S: IF LUCKY!!
Post 2007 Technology – what next!

- 160 GB memory stick for $50
- Massive planes such as the Airbus 380 carrying 525-853 passengers, cruising speed of 900km/h and range of 15,200 km
- Use of computer DVD’s becoming “old hat” – computers with no DVD/CD drives
- Google Maps
- Google Streetview
- iPad
- Skype anywhere, anytime for free
- GPS an expectation in taxis
- iPhones (video, GPS etc etc)
- Digital TV and multiplicity of channels
- Video shops and music stores closing
- Newspapers closing down
- Remote sensing imagery readily available
- Flights to UK cheaper now than in 1976
- Dongles
- Twitter

What are the societal/economic/environmental impact of these changes?
Background to the AC: Geography

Click here for a summary.
Organisation of the AC

Remember, you have access to a copy via Catholic Education Cairns.
The Rationale
What does geography teach students about the world? Geography.....

- Nurtures curiosity and wonder about the world
- Helps develop identity
- Teaches the connectedness of places
- Emphasises the significance of place
- Develops an understanding of the interrelationships between the biophysical environment and people
What does geography teach students about the world? Geography.....

- Teaches spatial thinking
- Teaches holistic thinking
- Teaches a wide range of research skills
- Produces informed local, national and global citizens
- Has career applications
Aims

The curriculum aims to ensure that students develop:

- A sense of wonder, curiosity and respect about places, people, cultures and environments throughout the world.
- A deep geographical knowledge of their own locality, Australia, the Asia-Pacific region and the world.
- The ability to think geographically, using geographical concepts.
- Competent, critical and creative use of geographical inquiry methods and skills.
- As informed, responsible and active citizens who can contribute to the development of an environmentally sustainable, economically resilient and socially just world.
Strands

- Geographical Knowledge and Understanding
- Geographical Inquiry and Skills
Year 7 Level Description

There are two units of study in the Year 7 curriculum for Geography.

*Water in the world* draws on the concepts of change, interconnection, scale and sustainability to investigate how water moves through the environment, and is valued, used and managed in Australia, North Africa or West Asia.

*Places are for living in* draws on the concepts of change, place, scale and sustainability to examine different types and functions of settlements and the liveability of places in Australia, the Asia region or Europe.

The content of this year level is organised into two strands: *Geographical Knowledge and Understanding* and *Geographical Inquiry and Skills*. These strands are interrelated and should be taught in an integrated manner, and in ways that are appropriate to specific local contexts. The order in and depth at which they are taught are programming decisions.

A framework for developing students’ geographical knowledge, understanding and skills is provided through the inclusion of inquiry questions and specification of inquiry skills, including the use and interpretation of maps, photographs and other representations of geographical data. The key inquiry questions are articulated at the beginning of each unit.
Key Inquiry Questions

- What are the characteristics of environmental resources such as water?
- How does the movement of water through the environment connect places together, and what are the implications of these linkages?
- What role does water play in different places and cultures?
- In what ways are water resources valued?
- Why are water resources so difficult to manage?
- Why is the management of water resources such an important issue in Australia and other parts of the world?
Content Description
(Between three and six for each year level)

Elaborations

- acknowledging all people have a need for and a right to fresh water
- describing how people use and value water in many different ways, including the belief that water has spiritual significance
- explaining that many places have communities and economies based on irrigation
- comparing life in communities which do not have a regular water supply to homes, with life in communities which have a regular water supply to homes
Achievement Standard

Year 7

By the end of Year 7, students understand the importance of water as a resource and the need for it to be managed sustainably. They understand how the liveability of settlements can be measured, compared and improved. They apply the concepts of interconnection and scale to explain the importance of water and measures of liveability. They also apply the concepts of change and sustainability to describe the type and effectiveness of strategies which have been designed to manage water and improve the liveability of places.

Students plan a simple geographical inquiry. They identify inquiry questions and an appropriate methodology. When answering their inquiry questions, students collect and use sources of primary and secondary data and interpret maps of various scales to explain spatial patterns. They identify and explain trends, patterns and relationships using maps, satellite images, aerial photographs and other graphic representations of data. Students synthesise data and information to draw conclusions and present their reasoned findings using a range of texts. They reflect on the inquiry process and decide on how to respond to an issue.
Knowledge and Understanding

- **Foundation** – People live in places
- **Year 1** – Places have distinctive features
- **Year 2** – People are connected to many places
- **Year 3** – Places are both similar and different
- **Year 4** – The Earth’s environment sustains all life
- **Year 5** – Human and environmental processes shape places
- **Year 6** – We live in a diverse world
Knowledge and Understanding

- **Year 7**
  - Water in the world
  - Places are for living in

- **Year 8**
  - Landforms and Landscapes
  - Reshaping Nations

- **Year 9**
  - Biomes and Food Security
  - Exploring Interconnections

- **Year 10**
  - Environmental Change and Management
  - Geographies of Human Well-Being
The Concepts
Place

- A place is a specific part of the Earth’s surface that has been named and given meaning by people, and these meanings may differ.
- The characteristics of places that are studied in geography include population, climate, economy, landforms, built environment, soils and vegetation, communities, water resources, cultures, minerals, landscape, and recreational and scenic quality.
Space

• Space in geography is the three-dimensional surface of the Earth. While history studies change over time, geography studies difference across space.
• Human and natural features have locations within space.
• The world is organised spatially i.e. location, distribution and pattern.
The term environment means our living and non-living surroundings. The features of the environment can be classified as natural, managed or constructed.

The concept of environment is about a way of understanding, explaining and thinking about the world.

The environment has intrinsic value and is essential to, and interconnected with on-going human wellbeing.
The concept of interconnection is about the ways that geographical phenomena are connected to each other through environmental processes, the movement of people, flows of trade and investment, the purchase of goods and services, cultural influences, the exchange of ideas and information, political power, international agreements and other types of interaction across space.

These interconnections are complex and often reciprocal or interdependent, and have a strong influence on the characteristics of places.
Sustainability

- Sustainability is about the capacity of something, such as an ecosystem, a fishery, a water resource, a community, a way of life or the life support systems of the planet, to be maintained indefinitely into the future.
Scale

- Scale is about the hierarchy of divisions from the personal to the local, regional, national, world, regional, global and sometimes, universal.

Where are the 4 corners of the earth?
An awareness of change over time and space is important in helping students to understand what is happening around them, and to see their world as dynamic.

Places, environments and spatial patterns alter over time.

“Not too long ago this area was all under water.”
Scenarios

In this activity, you are to come up with teaching ideas and activities that could address each concept in a typical uni, below.

- F – Built and natural environments (school)
- 1 – Managing parks
- 2 – Holidays
- 3 – Australia (states, climate)
- 4 – Resources
- 5 – Bushfires
- 6 – Asia and Australia
- 7 – Water
The Big Ideas

Inquiry, geospatial technologies and fieldwork
Inquiry

- The Geographic Inquiry Model
- Key Questions
  - What and where?
  - How and why?
  - What impacts?
  - What can and should be done?
- Focus Questions
- Focus questions lead to more focus questions
Geospatial technologies

Technologies that answer questions about place and space
http://www.youtube.com/user/contoureducation
Fieldwork
- Takes classroom outside
- Wonderment and awe
- Geographical skills
- Inquiry
- Analysis – data
- Local issues - relevance
- ACARA “big ticket item”
Local area

- The school is the best field site for primary students
- Students engage with this place almost every day, they use the buildings and grounds, they participate in activities all across the school.
- They can describe and discuss what the school is like and how, why when and where things happen.
- What will it be like in the future? What should it be like in the future?
Cross Curricular Priorities
Sustainability
Asia and Australia’s engagement with Asia
Aboriginal and Torres Strait Islander histories and cultures

- How are you incorporating ATSI perspectives into your teaching?
- How could we do this in geography?
The strands – Skills and Inquiry
“Geographical inquiry encourages questioning, investigation and critical thinking about issues affecting the world and people’s lives, now and in the future”

Ofsted, 2008
The Geographical Inquiry

- Provides a structure for investigation
- Common language across the different phases
- Familiarity for Queensland geographers
Stages of Inquiry

- Observing, questioning and planning
- Collecting, recording, evaluating and representing
- Analysing and concluding
- Communicating
- Reflecting and responding
The Queensland model

Think geographically - develop geographic questions

Design research plans

Gather, organise and establish currency, validity and reliability of information

The Australian Curriculum model

Think geographically - observe and question

Plan a geographical inquiry

Collect, evaluate and manage information
Make sense of information

Decide on appropriate actions and justify decisions

Communicate

Make sense of information

Communicate

Plan and implement actions

Reflect on the investigation
Activity

In groups of three or four,
- Develop a rough geographic inquiry for a hypothetical unit in your year level.
- Use the year level descriptions outlined in the curriculum to guide your topic.
- Plan your inquiry using the 5 Es approach:
  - Engage
  - Explore
  - Explain
  - Elaborate
  - Evaluate
The Strands – Knowledge and Understanding
The cultural, aesthetic, recreational, health and economic values placed on water, using examples from Australia and countries from the Asia region.

**Elaborations**

- acknowledging all people have a need for and a right to fresh water
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Activity

In groups of three or four,

- Read through the content descriptions for your year level and the associated elaborations.
- Develop more specific elaborations (3-4 per CD) of pedagogy that will help students achieve each content description.
- Consider elaborations relevant to the geographic inquiry you developed earlier.
Achievement Standards
Achievement Standard

Year 7

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Planning Considerations and Resources
Considerations

- Geographic language and skills
- Field work
- Geospatial technologies
- Concepts
- Integration
- Assessment
Some resources

- ACARA – Susan Caldis
- Australian Geography Teachers Association
- GeogSpace
  - http://www.geogspace.edu.au
- Geographical Association (UK)
  - http://www.geography.org.uk/eyprimary
  - http://www.geography.org.uk/eyprimary/primaryhandbook/
- GTAQ
- Contour Education
Some resources

- Teaching Primary Geography for Australian Schools (Catling, Willing and Butler) (no digital link yet but keep an eye on the AGTA Resources page)
Click image for link