

Assessment Design

AGTA Conference
Rotorua NZ
January 2015





34.9290° S, 138.6010°
E

Adelaide, Coordinates



38.1378° S, 176.2514°
E

Rotorua, Coordinates



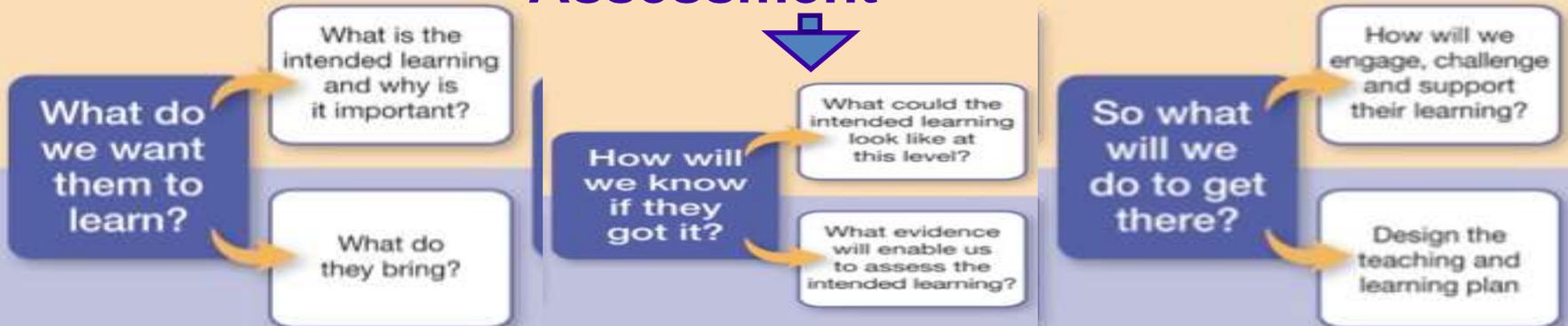
★ The StAR team



Standards, Assessment and Reporting



How do we know? Assessment



Urban settlement

1. List 3 advantages of living in your local town or city and then 2 disadvantages.
2. Research photographs of Australia's capital cities. Write a 'promo' for each.
3. Put together a brochure and oral presentation showing comparisons of Australia and the United States settlements. Include maps and information about:
 - Most important differences
 - Most interesting similarities



Teachers designing learning

How do we know ... that learning programs are intentional, responsive, designed with the end in mind and standards aligned?



Know the achievement standard deeply

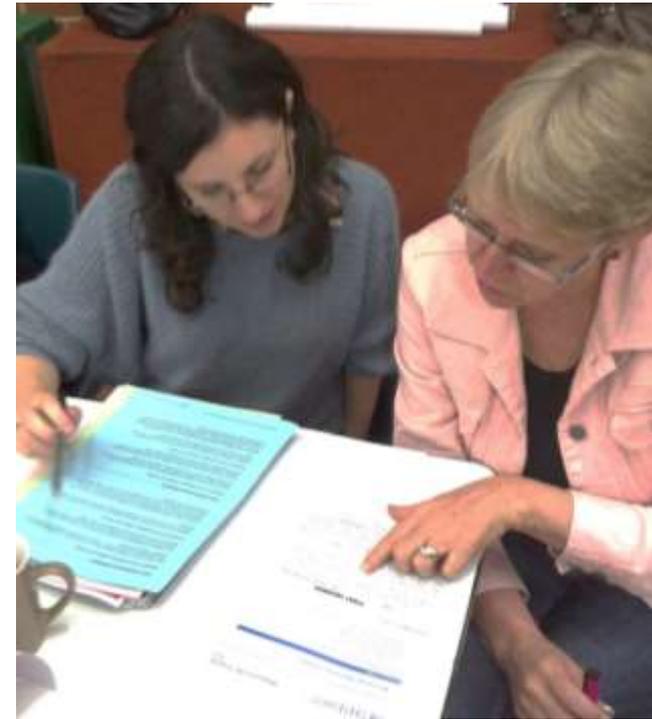
- verbs and nouns activity = common understandings of the achievement standard
- recognise the **power of the verbs** in determining sophistication and depth
- engagement activities to familiarise with achievement standards

www.decd.sa.gov.au/assessment



Your turn ...

- Identify the **verbs and nouns**
- Discuss the **achievement standard** to make sense of it



Urban settlement

1. List 3 advantages of living in your local town or city and then 2 disadvantages.
2. Research photographs of Australia's capital cities. Write a 'promo' for each.
3. Put together a brochure and oral presentation showing comparisons of Australia and the United States. Include maps and information about:
 - Most important differences
 - Most interesting similarities



Year 8 Achievement Standard

By the end of Year 8, students explain geographical processes that influence the characteristics of places and explain how places are perceived and valued differently. They explain interconnections within environments and between people and places and explain how they change places and environments. They propose explanations for spatial distributions and patterns among phenomena and identify associations between distribution patterns. They compare alternative strategies to a geographical challenge and propose a response, taking into account environmental, economic and social factors.

Students identify geographically significant questions from observations to frame an inquiry. They locate relevant information from a range of primary and secondary sources to answer inquiry questions. They represent data and the location and distribution of geographical phenomena in a range of appropriate graphic forms, including maps at different scales that conform to cartographic conventions. They analyse geographical data and other information to propose explanations for spatial patterns, trends and relationships and draw reasoned conclusions. Students present findings, arguments and ideas using relevant geographical terminology and graphic representations in a range of appropriate communication forms. They propose action in response to a geographical challenge taking account of environmental, economic and social considerations and predict the outcomes of their proposal.



Year 8 Achievement Standard

By the end of Year 8, students explain geographical processes that influence the characteristics of places and explain how places are perceived and valued differently. They **explain interconnections** within environments and **between people and places** and explain how they change places and environments. They **propose explanations for spatial distributions and patterns among phenomena and identify associations between distribution patterns**. They compare alternative strategies to a geographical challenge and propose a response, taking into account environmental, economic and social factors.

Students identify geographically significant questions from observations to frame an inquiry. They locate relevant information from a range of primary and secondary sources to answer inquiry questions. They represent data and the location and distribution of geographical phenomena in a range of appropriate graphic forms, including maps at different scales that conform to cartographic conventions. They analyse geographical data and other information to propose explanations for spatial patterns, trends and relationships and draw reasoned conclusions. Students present findings, arguments and ideas using relevant geographical terminology and graphic representations in a range of appropriate communication forms. They propose action in response to a geographical challenge taking account of environmental, economic and social considerations and predict the outcomes of their proposal.



What else?

- Geography concepts



- Year level description
- Content description

Humanities and Social Sciences

Year 8

There are two units of study in the Year 8 curriculum for Geography: *Landforms and landscapes* and *Changing nations*.

Landforms and landscapes focuses on investigating geomorphology through a study of landscapes and their landforms. This unit examines the processes that shape individual landforms, the values and meanings placed on landforms and landscapes by diverse cultures, hazards associated with landscapes, and management of landscapes. *Landforms and landscapes* develops students' understanding of the concept of environment and enables them to explore the significance of landscapes to people, including Aboriginal and Torres Strait Islander Peoples. These distinctive aspects of landforms and landscapes are investigated using studies drawn from Australia and throughout the world.

Changing nations investigates the changing human geography of countries, as revealed by shifts in population distribution. The spatial distribution of population is a sensitive indicator of economic and social change, and has significant environmental, economic and social effects, both negative and positive. The unit explores the process of urbanisation and draws on a study of a country of the Asia region to show how urbanisation changes the economies and societies of low and middle-income countries. It investigates the reasons for the high level of urban concentration in Australia, one of the distinctive features of Australia's human geography, and compares Australia with the United States of America. The redistribution of population resulting from internal migration is examined through case studies of Australia and China, and is contrasted with the way international migration reinforces urban concentration in Australia. The unit then examines issues related to the management and future of Australia's urban areas.

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 and detail in which they are taught are programming decisions.

Key inquiry questions

A framework for developing students' geographical knowledge, understanding and skills is provided through the inclusion of inquiry questions and specific inquiry skills, including the use and interpretation of maps, photographs and other representations of geographical data.

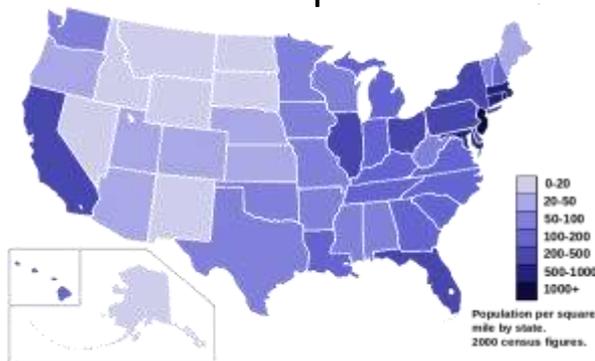
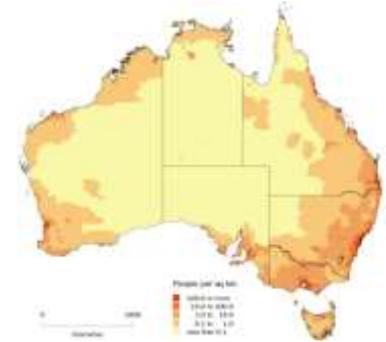
The key inquiry questions for Year 8 are articulated below.

- How do environmental and human processes affect the characteristics of places and environments?
- How do the interconnections between places, people and environments affect the lives of people?
- What are the consequences of changes to places and environments and how can these changes be managed?

Year 8 Level Description

Changing nations investigates the changing human geography of countries, as revealed by shifts in population distribution. The spatial distribution of population is a sensitive indicator of economic and social change, and has significant environmental, economic and social effects, both negative and positive.

The unit investigates the reasons for the high level of urban concentration in Australia, one of the distinctive features of Australia's human geography, and compares Australia with the United States of America.



Content Description

Year 8 Unit 2: Changing nations

The differences in urban concentration and urban settlement patterns between Australia and the United States of America, and their causes and consequences

Geographical concepts

Space

The concept of space is about the significance of location and spatial distribution, and ways people organise and manage the spaces that we live in. In the Australian Curriculum: Geography, an understanding of the concept of space is developed in the following ways:

The environmental and human characteristics of places are influenced by their location, but the effects of location and distance from other places on people are being reduced, though unequally, by improvements in transport and communication technologies.

The individual characteristics of places form spatial distributions, and the analysis of these distributions contributes to geographical understanding. The distributions also have environmental, economic, social and political consequences. Spaces are perceived, structured, organised and managed by people, and can be designed and redesigned, to achieve particular purposes

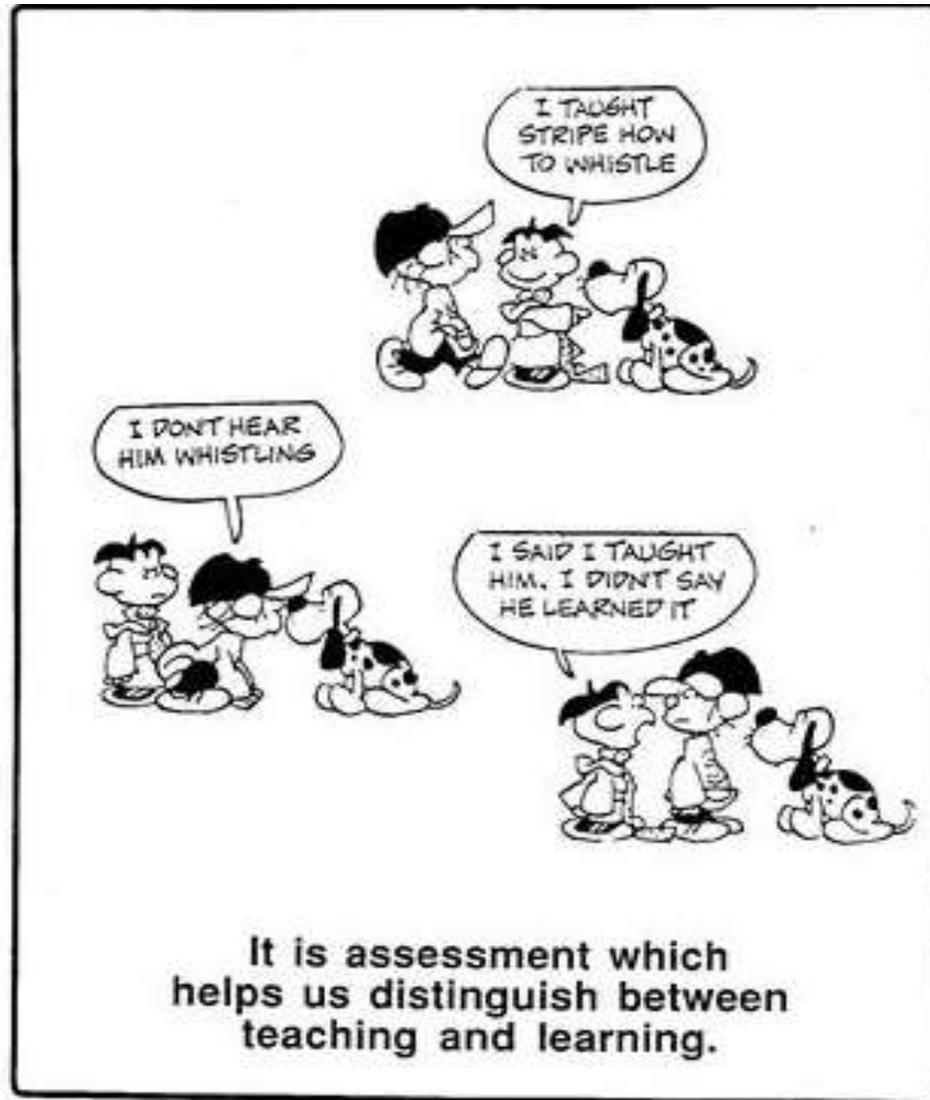
Interconnection

The concept of interconnection emphasises that no object of geographical study can be viewed in isolation. In the Australian Curriculum: Geography, an understanding of the concept of interconnection is developed in the following ways:

Places and the people and organisations in them are interconnected with other places in a variety of ways. These interconnections have significant influences on the characteristics of places and on changes in these characteristics.

Environmental and human processes, for example, the water cycle, urbanisation or human-induced environmental change, are sets of cause-and-effect interconnections that can operate between and within places. They can sometimes be organised as systems involving networks of interconnections through flows of matter, energy, information and actions. Holistic thinking is about seeing the interconnections between phenomena and processes within and between places.





When designing assessment, can you visualise students ...

- Constructing it?
- Struggling with it?
- Making sense of it?
- Doing it?
- Describing/explaining it?
- Using it?
- Applying it elsewhere?



How will you know if they learnt it?

- Key ideas
- Links
- Patterns
- Transfer of learning



Explaining 'new contexts' in the A-E guide reporting resource

Dimension	Near transfer		Far transfer	
Learning Area	Same example <i>e.g. wood sanding learnt with bowl & continued applying to bowl</i>	Same topic/ new example <i>e.g. map scales learnt with school ground map & applied to showground map</i>	Same learning area/new topic <i>e.g. science learnt in chemistry & used in biology</i>	Interdisciplinary <i>e.g. fractions learnt in maths & used in music</i>
Time	Same lesson <i>e.g. use what you have learnt this lesson about how to find the slope of a line</i>	Same week/ new day <i>e.g. what do you remember from yesterday about how to start a narrative?</i>	Same term/ new week <i>e.g. what do you remember about safety from last time we used a bunsen burner?</i>	Same year & beyond <i>e.g. What do you already know about ancient Greece?</i>
Place	Same room <i>e.g. learnt in the classroom & used in the classroom</i>	Another classroom <i>e.g. learnt in the classroom used in the library</i>	Outside <i>e.g. learnt in the classroom & used on the oval</i>	Away from school <i>e.g. learnt at school, used at the beach</i>
Authority <i>e.g. formal learning at school, formal learning outside school, non-academic</i>	Same authority <i>e.g. learnt in school, used in school</i>		Different authority <i>e.g. learnt at school, used in play</i>	
Social <i>e.g. Individual or group</i>	Same <i>e.g. learnt individually & used individually</i>		Different <i>e.g. learnt individually, used in a group</i>	
Mode <i>e.g. oral/aural text, diagram, demonstration hands on, ICT, face to face, artwork (music, media, dance, drama, visual)</i>	Same mode <i>e.g. learnt from text and a diagram & used to produce text and a diagram</i>		Different mode <i>e.g. learnt from text and a diagram & used to produce a drama</i>	



What are the five SOLO levels of understanding?

SOLO shows students' learning outcomes at these five levels:

Prestructural level			The student has not yet grasped the idea and/or needs help to start.
Surface knowledge (loose ideas)			
Unistructural level			The student has one relevant idea.
Multistructural level			The student has several relevant ideas.
Deep knowledge (connected ideas)			
Relational level			The student has related (or linked or integrated) the ideas.
Conceptual or constructed knowledge (extended ideas)			
Extended abstract level			The student has taken the related ideas and extended them.

<http://pamhook.com/solo-taxonomy/>



What am I learning? How is it going? What do I do next?

- Home
- News
- About
- HookED Store
- SOLO Taxonomy**
- Apps
- Wiki
- Publications
- Projects
- Presentations
- Pinterest
- YouTube
- Free Resources
- Calendar
- Contact

SOLO Taxonomy

[SOLO Taxonomy](#) (structure of observed learning outcomes) provides a simple, reliable and robust model for three levels of understanding – surface deep and conceptual (Biggs and Collis 1982).



At the **prestructural** level of understanding (Whakarangaranga), the task is inappropriately attacked, and the student has missed the point or needs help to start. The next two levels, **unstructural** and **multistructural** are associated with bringing in information (surface understanding). At the **unistructural** level (Rangaranga Takitahi), one aspect of the task is picked up, and student understanding is disconnected and limited. The jump to the **multistructural** level is quantitative. At the **multistructural** level (Rangaranga Maha), several aspects of the task are known but their relationships to each other and the whole are missed. The progression to **relational** and **extended abstract** outcomes is qualitative. At the **relational** level (Whanaungatanga), the aspects are linked and integrated, and contribute to a deeper and more coherent understanding of the whole. At the **extended abstract** level (Waitara Whansa), the new understanding at the relational level is re-thought at another conceptual level, looked at in a new way, and used as the basis for prediction, generalisation, reflection, or creation of new understanding (Hook and Mills 2011).

HookED uses a unique classroom based approach to SOLO Taxonomy. In this approach SOLO becomes a powerful mental model for students – and is capable of changing the way they think about their own learning outcomes. With SOLO, students



Urban settlement

1. No idea of interconnection or space – difficulty in describing a place as rural or urban
2. Can identify one interconnection ie: population density relating to urban or rural settlement
3. Can identify more than one interconnection ie: population, climate
4. Has some relational understanding ie: factors of distribution, links between climate, landforms, population distributions
5. Abstract thinking ie: comparing Australia and US population patterns, climate, physical geography



Transforming the task

Can you now write a task that will

- meet the AS
- allow all students to 'buy in'
- give students an opportunity to get an 'A' against the AS?



Transformed task

How will you ensure students can move from no understanding of the concepts to at least some related or linked ideas?



What can help make assessment clear?

- Can students be involved in
 - assessment design
 - negotiating aspects of the assessment
 - developing criteria?
- Are examples of responses made available to them?
- Are they aware of what they need to do to achieve at a high level?
- Are they involved in peer assessment?
- Are they given usable and actionable feedback on drafts?



When designing assessment tasks

- IT IS HARD!!!
- Despite deep thinking and reflection it does not come easily
- We need to work together to design, reflect, and redesign..... trial, reflect and redesign and to share your practice – be prepared to provide and receive feedback



AC Achievement Standards

+ work samples

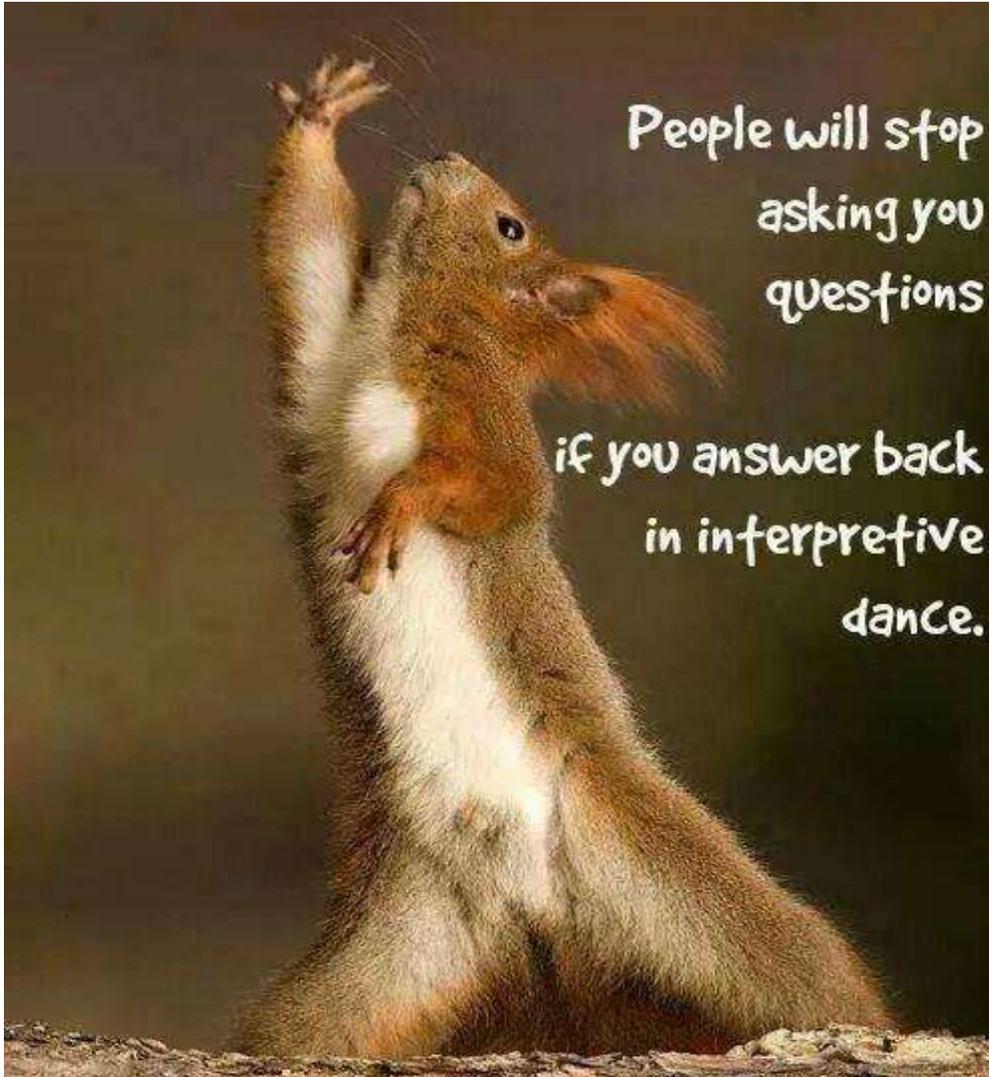
= fair, valid and reliable judgements about student learning



Remember, if students really understand something, they:

- can **explain** it
- can **apply** it in a range of new contexts
- can **interpret** it (does it make sense?)





People will stop
asking you
questions

if you answer back
in interpretive
dance.

