Getting conceptual & connected
with the Australian Curriculum

Workshop presentation by Dr Jennifer Nayler

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Abstract
Diverse Australian schooling contexts share a common curriculum platform via the Australian Curriculum. A range of scenarios could be taken up to respond to this common and required curriculum context. Just two scenarios are explored here. First, the Australian Curriculum can be implemented through a ‘join the dots’ curriculum in which content descriptions and portions of the relevant achievement standard are allocated and covered. Another scenario involves a strong focus on conceptual understandings and skills with connections both to the world and to learners’ lives. In such a scenario the Australian Curriculum is enacted in ways that are meaningful to the local community, are built on high expectations of all learners and which fulfil the requirements of the curriculum. The enactment of a conceptual and connected curriculum is based on a number of qualities including the use of BIG questions to drive teaching/learning units, as well as ‘purposefully connected curriculum’ (Nayler, 2014) which draws on understandings and skills across subjects and learning areas where clear connections exist. The focus in this workshop is on the ways in which these two qualities can be utilised to ensure intellectually rigorous ‘conceptual and connected’ curriculum, while ensuring the integrity of learning areas and subjects.

Process for session
1. Reflect on the brief definition of a ‘purposefully connected’ curriculum approach on the following page.
2. Brainstorm and share opportunities and challenges associated with such an approach.
3. Critique practical example, ‘What is the impact of drought?’ (Year 6; Science & English)
4. Formulate, modify or confirm your viewpoint in relation to purposefully connected curriculum (consider principles provided in this material).
5. Consider possible actions at classroom, team or whole-school level:
   - ____________________________________________________________________________
   - read __________________________________________________________________________
   - talk to __________________________________________________________________________
   - lead a professional learning and planning activity ________________________________________________________________________________
   - modify curriculum planning at unit, year or whole-school level ____________________________________________________________________

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Step 1: Reflect on the brief definition of a ‘purposefully connected’ curriculum approach.

Purposefully connected curriculum involves planning for teaching and learning that draws on two or three subjects within a learning area, or two or three learning areas or subjects…It is hoped that teachers and other curriculum leaders might consider purposefully connected curriculum as a planning option alongside the single curriculum approach. The latter approach refers to planning a teaching/learning unit which draws on one learning area or subject.

…Two conditions are essential for purposefully connected curriculum. First, a clear conceptual link (or links) needs to exist among the curricular area content descriptions connected in planning for teaching and learning. Second, the integrity of the curricular areas must be maintained. This refers to ensuring that the key purpose of the curricular area is not ‘watered down’ or lost as teaching and learning draws on more than one curricular area. Associated with maintaining the integrity of the curricular areas is the requirement that schools gather assessment data that indicate what students know and can do in specific curricular areas.


Note:
1. Conceptual links are of two types: where overlapping or common concepts exist or where complementary concepts exist (as in the example on next page). See Nayler (2014) for an example based on overlapping or common concepts.
2. Reference is made to other materials available from the Queensland Curriculum and Assessment Authority (QCAA; formerly QSA). The website is www.qcaa.qld.edu.au.

Step 2: Brainstorm and share opportunities and challenges associated with this approach.

[Table]

| Opportunities | — Challenges |

Step 3: Critique practical example, ‘What is the impact of drought?’
(Year 6; Science & English)—purposefully connected curriculum drawn from complementary concepts

In the Year 6 curriculum, the distinctive understandings and skills of English and Science are brought together to explore a relevant, real-world phenomenon, that of the impact of drought. The learning context, that of students exploring the impact of drought—a pervasive and significant condition in Australian life—means that Science and English concepts can be brought together in a unit in meaningful and useful ways. In other words, the identified concepts from Science and English here are complementary in this learning context.

<table>
<thead>
<tr>
<th>Processes</th>
<th>Example</th>
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</thead>
<tbody>
<tr>
<td>1. Become familiar with the key concepts of the curricular areas in the particular year level.</td>
<td>In the Year 6 curriculum, the concept of differences and similarities in texts from English can be brought together in meaningful and useful ways with the Science concept of the effects of extreme weather conditions.</td>
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<tr>
<td>2. Consider school and community context and demographics…[and systemic and school data and priorities].</td>
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<tr>
<td>3. Identify concepts or big ideas from content descriptions from a curricular area that would work in complementary ways with a concept from one or two other curricular areas or look for overlapping or common concepts from two or more areas.¹</td>
<td>LA/subject</td>
</tr>
<tr>
<td>Science</td>
<td>Effect of geological changes on Earth’s surface</td>
</tr>
<tr>
<td>English</td>
<td>Differences and similarities in</td>
</tr>
</tbody>
</table>

¹ It is important to note that this approach follows school-based decisions to locate linkages across the Australian Curriculum. Schools have varying degrees of autonomy to alter the scope and sequence of the content descriptions as they are used in planning across the year levels. If the scope and sequence of content descriptions is ‘a given’, curriculum leaders would look for linkages within the ‘allocated’ content descriptions for a particular period of time.
various texts related to drought

Conceptual link between Science and English concepts: Drought is a phenomenon that impacts on people and other living things in various places.

5. Develop a [BIG] question to provide a learning context to support meaningful and real-world learning and sub-questions that will maintain the integrity of the learning areas.

Overarching question: What is the impact of drought?

Sub-questions
a. What can the scientist tell us about drought in Australia? (Science)
b. What can we learn from literature about the impact of drought in Australia? (English)

6. Identify other content descriptions that will support deep learning.

LA/subject | Content descriptions
---|---
Science | Science as a human endeavour: ACSHE098; ACSHE220
Science inquiry skills: ACSIS232; ACSIS103; ACSIS104; ACSIS107; ACSIS221; ACSIS108; ACSIS110

English | Language: ACELA1515; ACELA1517; ACELA1520; ACELA1521; ACELA1526
Literacy: ACELY1709; ACELY1711; ACELY1712; ACELY1713; ACELY1714; ACELY1715; ACELY1717

7. Complete unit planning using a template that incorporates the QSA (2011c) ‘five elements of effective unit planning’.

- identify curriculum (a major portion of this completed in above processes)
- develop assessment authentic to both curricular areas (see the QCAA standard elaborations for English and Science to determine the ‘valued features’ [or criteria] on which to focus)
- sequence teaching and learning
- use feedback (commenced in #2 above)
- make judgments

Think about…

Key consideration
The fact that the Australian Curriculum is being developed within distinct learning areas and subjects does not mean that schools must enact it only along strict curriculum boundaries.

[In the] paper [Nayler, 2014], details are provided of the ways in which content descriptions from up to three learning areas or subjects can contribute to a conceptual link or links that can form the basis of meaningful student learning.

Key consideration
The requirement that schools must assess and report on student achievement in relation to learning areas and subjects does not mean that schools must plan exclusively single curriculum units with assessment tasks that gather student achievement data on a single learning area or subject.

[In the] paper [Nayler, 2014], details around authentic assessment tasks in which teachers gather specific assessment data on up to three learning areas or subjects are provided.

- See the paper (Nayler 2014) for an outline of a possible assessment task related to the Year 6 example.
- See learning aJeNcy resource for a set of criteria that might indicate that learning area/subjects are being successfully connected.

Step 4: Formulate, modify or confirm your viewpoint in relation to purposefully connected curriculum (consider principles provided on the next page and note your reflections here).

Step 5: Consider possible actions at classroom, team or whole-school level (record these on the front page).

For support in your school in relation to purposefully connected curriculum and other matters to do with quality teaching, learning, assessment and curriculum contact:
Jenny Nayler at jenny@learningajency.com.au or 0418197104
See further learning aJeNcy resources at www.learningajency.com.au
### Planning for purposefully connected curriculum design: A principle-based approach

Teachers planning within the context of the Australian Curriculum with its goal of supporting young Australians to become successful learners, confident and creative individuals, and active and informed citizens through the provision of the student learning entitlement regarding the curriculum context from learning areas, general capabilities and cross-curriculum priorities with attention to any state/territory or sector priorities and policies.

Planning curriculum at the school level through: whole-school, year-level and unit planning incorporating a single curriculum approach and a purposefully connected curriculum approach, where a clear purpose exists in line with principles related to:

<table>
<thead>
<tr>
<th>QSA (2011a) Principles for effective planning including:</th>
<th>Specific design principles re purposefully connected curriculum:</th>
<th>What you would like to see at your school/college: Products &amp; processes</th>
<th>Tentative plans (for further collaboration at own school sites)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. <strong>high expectations for all [Junior Secondary] students</strong></td>
<td>1. sound educational philosophy such as: —teaching and learning for deep knowledge and understandings —building connectedness to students' lives and the world through engaging and meaningful learning contexts (applicable also to Principle for effective planning #4)</td>
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<tr>
<td>2. <strong>alignment of teaching and learning, and assessment and reporting</strong></td>
<td>2. alignment of teaching and learning across two or three curricular areas with assessment tasks, as well as practice that enables reporting of student achievement along curricular area lines</td>
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<tr>
<td>3. <strong>standards- and school-based assessment for learning</strong></td>
<td>3. maintaining the integrity of each curricular area connected in teaching/learning unit</td>
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<tr>
<td>4. <strong>balance of informed prescription and teacher professional judgment</strong></td>
<td>4. practical solutions to the programming of the range of curricular areas that comprise the Australian Curriculum.</td>
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Source of shaded section opposite: Modified from Nayler (2014). ‘Enacting Australian Curriculum: Making connections for quality learning’. An issues paper prepared for the Queensland Studies Authority, Figure 1: ‘Purposefully connected curriculum design overview’ (p. 4).