Chapter 3

Planning for Literacies Learning: Using backward design for an inquiry project

Beryl Exley and Robyn Henderson

Effective planning is an important part of meeting the learning needs of students through all years of schooling. Yet, planning is inherently complex. Teachers have to bring the demands of curriculum, pedagogy and assessment together, while considering short- and long-term goals, the diverse needs of students, and relevant contextual factors. This chapter builds on the foundations for planning discussed in Chapter 2, then uses an inquiry project focused on three learning areas—the Humanities and Social Sciences, Science, and English—to demonstrate aspects of planning. These include backward mapping, resource selection and planning at the macro and micro levels.

Chapter foci

- ✓ planning for literacies learning
- ✓ backward design
- ✓ inquiry projects
- ✓ metalanguage
- ✓ macro or big picture planning
- ✓ micro planning
- ✓ deconstructing texts
- ✓ scaffolded instruction

Key terms

backward design contextualisation activity describers and classifiers language features process drama teachable moments textual analysis visualisation activity

Introduction

In Chapter 2, we considered some of the understandings that underpin planning for the teaching and learning of literacies. In this chapter, we demonstrate how a group of Year 4 teachers could plan an inquiry project that integrates content descriptions for three learning areas—the Humanities and Social Sciences, Science, and English. We use this as an illustrative example for the processes that we use to plan for the teaching and learning of literacies. We understand these processes as being applicable across learning areas, but we

have restricted our discussion here to provide details about how those processes would work with one project. Towards the end of the chapter, we indicate how readers might transfer our ideas to other learning areas.

Although we have said that we are considering how a group of teachers could plan, this does not mean that an individual teacher could not plan a project like this. We recognise, though, that many teachers plan collaboratively as part of schools' actions to enhance teaching and learning. Indeed, groups of teachers might plan across a broader range of learning areas or, in the new era of parent-engagement, teachers may even co-plan with parents (see Willis & Ritchie, 2010). We encourage readers to think about how our ideas can be taken up in different ways in different contexts. For example, teachers often have a wide range of pedagogical strategies for teaching, and different contexts have access to a variety of communication practices for listening, reading, viewing, speaking, writing and composing. We also acknowledge that our example can only be generic; in your own classroom, you will take into consideration the curriculum requirements, the specific learning needs of your students, and the context of your school and its community.

Planning for content learning and literacy learning

Wiggins and McTighe (2011) emphasised that planning for learning and teaching should be purposeful, involving deliberate, focused and negotiated decisions. As they explained, 'teaching is a means to an end'—for students to achieve particular learning outcomes—and 'planning precedes teaching' (p. 7). They argued for an 'understanding by design' approach, as opposed to an 'understanding by good fortune' approach (p. 7). This requires teachers to think backwards from 'the desired changes in the student,' by carefully thinking through 'what real learning looks like, what should be taught—and how to make it most likely that the teaching leads to fluent, flexible and lasting learning' (p. 7).

In other words, assessment is not an add-on at the end of a unit or inquiry project, but effective planning begins with considering how students will demonstrate the desired learning outcomes. As Wiggins and McTighe (2011) emphasised, this requires considerable intellectual engagement from teachers, because 'we don't start with content; we start with what students are expected to be able to do with content' (p. 7). That point is particularly important in terms of understanding the literacies that students need in order to demonstrate their learning.

Wiggins and McTighe (2011) advocated that teachers follow the three stages of planning that are listed in Table 3.1. These stages provide a framework for thinking through the steps of working backwards—thinking about 'what real learning looks like' and 'what will count as evidence of real learning,' before thinking about what needs to be taught (p. 7). Wiggins and McTighe called this **backward design**. The backward design approach means that teachers think about assessment at the beginning of their planning for a unit or inquiry project.

MN 1 backward design

An approach to learning design where learning outcomes and achievement standards are established before teaching activities are planned.

Table 3.1 Three stages of planning for learning and teaching (adapted from Wiggins and McTighe, 2011)

Stages of planning	Goal	Explanation
Stage 1 planning	Identify the required assessment task	Teachers decide what students will need to know and be able to do by the end of the inquiry project, taking into account the goals of the curriculum and the interests of the students.
Stage 2 planning	Determine the target achievement standards relating to knowledges, understandings and skills	Teachers identify what counts as evidence of the achievement standards. This means that assessment is considered from the beginning of the planning process, not as an add-on at the end.
Stage 3 planning	Plan learning experiences	Teachers select activities that will allow students to acquire the target knowledges, understandings and skills. Teachers plan appropriate teaching strategies and select suitable resources, ensuring a well-crafted mix of student discovery and exploration and overt instruction, as determined by the content requirements and students' learning needs.

Macro planning

Our initial plan for an inquiry project was prompted by a news article from the *Southern Courier* called 'A taskforce will tackle Coogee Beach's pollution as test confirm it's Poogee' (sic) (Hogg, 2017, March 3). The article appears in Figure 3.1. The idea of starting with a media text was inspired by a teacher from Brisbane, who Beryl knew and who uses real life problems and real media texts as the impetus for planning inquiry projects.

INSERT FIGURE 3.1 ABOUT HERE

Figure 3.1 The news article used in the inquiry project

In this way, students are working on real world problems that matter to real communities of people. Our stimulus article by Hogg (2017, March 3) reported on scientific tests which confirmed that water samples taken from Coogee Beach in Sydney, Australia, posed a significant health risk to swimmers, because 'chemical compounds derived only from sewage were in surf near a stormwater outlet at the northern end of the beach.' The article indicated that Randwick Councillor Kathy Neilson believed that the state government needed to 'address it as a matter of seriousness.' Hogg's article also referred to a related issue, in that the most recent water tests had contradicted the 'Government's State of the Beaches report claiming the beach is only polluted up to 24 hours after rain.' Another tension, according to

Kathy Neilson, was the 'added pressure on local government to have more housing would only escalate the pollution at the beach.'

From our reading of this news article, we settled on an inquiry question: What actions need to be taken to ensure the environmental sustainability of Coogee Beach? This inquiry question is relevant to the Year 4 Humanities and Social Sciences curriculum (Australian Curriculum, Assessment and Reporting Authority [ACARA], 2018b) and the Science curriculum (ACARA, 2018c). In addition, we could see the potential for linking into the English curriculum (ACARA, 2018a). As we state in Chapter 2, we recognise the variations to curriculum that occur across the Australian states and territories, but we use the Australian curriculum as indicative of curriculum intent.

To achieve the first stage of Wiggins and McTighe's (2011) backward design, we examined the relevant curriculum documents (see ACARA, 2018a, 2018b, 2018c). As shown in Table 3.2, we identified relevant learning (understandings, knowledges and skills) for students in Year 4.

Table 3.2 Year 4 content descriptions that relate to the inquiry project about the environmental sustainability of Coogee Beach

Curriculum document	Sub-strand	Content description
Humanities and Social Sciences (ACARA,	Analysing	Examine information to identify different points of view and distinguish facts from opinions (ACHASSI077)
2018b)	Evaluating and reflecting	Interact with others with respect to share points of view (ACHASSI080)
	Geography	The importance of environment, including natural vegetation, to animals and people (ACHASSK088) The use and management of natural resources and waste, and the different views on how to do this sustainably (ACHASSK090)
Science (ACARA,	Biological sciences	Living things depend on each other and the environment to survive (ACSSU072)
2018c)	Use and influence of science	Science knowledge helps people to understand the effect of their actions (ACSHE062)
	Processing and analysing data and information	Use a range of methods including tables and simple column graphs to represent data and to identify patterns and trends (ACSIS068) Represent and communicate observations, ideas and findings using formal and informal representations (ACSIS071)
English (ACARA, 2018a)	Language for interaction	Understand differences between the language of opinion and feeling and the language of factual reporting and recording (ACELA1489)

Text structure and	Understand how texts vary in complexity
organisation	and technicality depending on the
	approach to the topic, the purpose and the
	intended audience (ACELA1490)
Expressing and developing	Investigate how quoted (direct) and
ideas	reported (indirect) speech work in different
	types of text (ACELA1494)
	Exploring the effective choices when
	framing an image, placement of elements
	in the image, and salience on composition
	of still and moving images in a range of
	types of texts (ACELA1496)

When thinking about how a team of teachers would co-plan to integrate learning across the three learning areas, we tried to keep the overall curriculum as uncluttered as possible, while finding ways of engaging students in inquiry learning. In terms of literacies, we wanted to focus students on the development of comprehending multimodal texts through listening, reading and viewing, and composing multimodal texts through speaking, writing and creating.

In keeping with a multiliteracies approach, we were keen to incorporate several elements of design, not just the linguistic (written and spoken language) elements. For example, we wanted to include an analysis of visual and gestural design, because of the potential of these designs to the selected focus of the inquiry project, particularly in working with the content descriptions that ask students to 'interact with others with respect to share points of view' (Humanities and Social Sciences) and 'represent and communicate observations, ideas and findings using formal and informal representations' (Science) (see Table 3.2)

Each of these design elements has its own set of technical terms that students need to know, so that they can talk about how the elements come together to create meaning. Exley and Cottrell (2012) have demonstrated a multimodal elements framework for analysis that includes analysis of the design of written/spoken texts, auditory texts, visual texts, gestural texts, spatial texts, and their combinations. In their analysis of some moving images from a children's computer-generated cartoon, they noted the careful design elements of open and closed spaces (to create different sorts of feelings) and how power is constructed through visual and audio design. As another example, Exley and Mills (2012) demonstrated how these design features are particular to time and place, noting the way that Coca-Cola advertisements differ between Australian and South Korean audiences in terms of use of colour, claims of health or pleasure, and use of supporting symbols such as a football in Australia and a heart in South Korea.

For the current project that we are planning, we made the decision that students would:

- recognise multiple perspectives on issues around environmental sustainability and the associated ethical considerations;
- investigate and learn about the sustainability issues and their relevance to communities;
- justify taking particular positions;
- create texts to present particular perspectives on the issues.

We then moved to the second stage of Wiggins and McTighe's (2011) backward design to consider two core questions:

- How will we know if students have achieved the required learning goals?
- What will be our evidence of students' knowledges, understandings and skills?

We decided on a final task and summative assessment that would enable us to assess students' learning of content and literacies. We wanted students to produce a multimodal text that was both persuasive (containing analytical exposition or discussion) and informative. Furthermore, the text would incorporate a range of design elements. Teachers always use their knowledge of students' previous learning experiences and curriculum requirements to make decisions about the types of texts with which students will engage (receptive knowledge) and compose (productive knowledge). We decided on a mixed text brochure produced in a digital format. Brochures typically inform, persuade and/or instruct their readers about something.

Our next step was to collect a range of texts that could be used in our project. In addition to the news report (see Figure 3.1), we came across a brochure produced by the cobb+co museum (n.d.) in Toowoomba (see Figure 3.2) and we used the internet to locate a technical report called *Beachwatch: State of the beaches 2015-16* (Office of Environment and Heritage NSW, 2016a). The latter was mentioned in the news report. The full technical report was 123 pages in length and it seemed in places to be quite dense. As teachers, we identified two sections within the summary of the report (see Office of Environment and Heritage NSW, 2016b)—a couple of paragraphs at the top of page 3 and a data table (see Figure 3.3)—that provided some specific information about the rating scale given to Coogee Beach. We regarded these sections as being suitable texts for Year 4 students.

INSERT FIGURE 3.2 AND FIGURE 3.3 ABOUT HERE

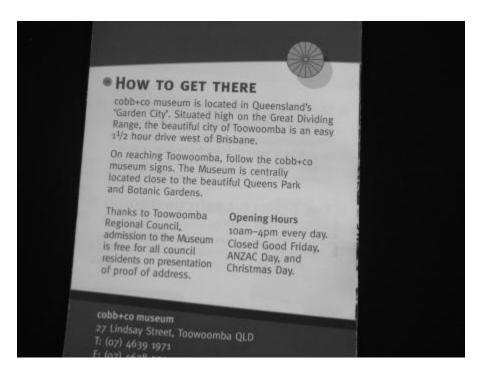


Figure 3.2 A page from the cobb+co museum, Toowoomba brochure <graphic>HEN_TLY_0204</graphic>

Sydney region (Central)		Site type	Beach suitability grade	Change
Oit.	Bondi Beach	Ocean beach	G	Stable
City Beaches	Tamarama Beach	Ocean beach	G	Stable
	Bronte Beach	Ocean beach	G	Stable
	Clovelly Beach	Ocean beach	VG	Stable
	Gordons Bay	Ocean beach	G	Stable
	Coogee Beach	Ocean beach	P	Deteriorated
	Maroubra Beach	Ocean beach	VG	Stable
	South Maroubra Beach	Ocean beach	G	Stable
	South Maroubra Rockpool	Ocean baths	G	Stable
	Malabar Beach	Ocean beach	P	Deteriorated
	Little Bay Beach	Ocean beach	G	Stable

Figure 3.3 A section of a data table from *Beachwatch: State of the beaches 2015-16* (Reproduced from the Office of Environment and Heritage NSW's *Beachwatch: State of the beaches 2015-16: Statewide summary and how to read this report*, 2016b, p. 12. Retrieved from http://www.environment.nsw.gov.au/resources/beach/ar1516/state-of-beaches-annual-report-2016-summary.pdf)

As part of our preparation, we analysed the three texts:

- the news report from the *Southern Courier* see Figure 3.1;
- the cobb+co museum brochure see Figure 3.2;
- a paragraph and a section of a data table from the summary of the *State of the beaches* 2015-16: Statewide summary and how to read this report see Figure 3.3.

As shown in Table 3.3, our analysis of the brochure, the sections of the technical report and the news article meant that we could identify the language features of these texts. From there, we could identify the language features that could be explored with the students, so that they could also be incorporated into the design of their digital brochure.

Table 3.3 An analysis of the literacies features of the brochure, report and news article

analysis	brochure	Beachwatch: State of	of the news article (Hogg,	Characteristics to incorporate into the students' digital brochure	
Focus topic	• The features of the cobb+co Museum	Evaluation report on the state of the beaches in New	 News report about ongoing health risks 	Will vary, depending on each	

	<pre><graphic>HEN_TLY_ 0202</graphic> Used with permission, cobb+co Museum, Toowoomba</pre>	South Wales from 2015–2016 INSERT THUMBNAIL OF REPORT COVER STATEMENT HERE RE REPRODUCTION OF COVER???	Randwick Council INSERT	group's role and focus Topics might be: Communicating scientific/geograph ical facts about the water quality during dry and wet weather Requesting state government to provide funding to upgrade storm water run-off at northern end of beach Petitioning Randwick Council to cease housing developments in the local area
Social purpose/s	 To inform people about the museum To describe the museum To instruct people about what to do when they visit the museum To give directions to get to the museum 	about the scientific monitoring of beach quality for beaches in NSW To explain the	recently announced attempt to solve the pollution problem at Coogee Beach To communicate	 To inform and persuade people about particular issues/points of view To describe and provide factual, explanatory or analytical information about the issue To instruct people about what to do

			the pollution problem	
Audience	Potential visitors to the museum, possibly those from out of town	• Readers, including online readers, with an interest in the health of the water at Coogee Beach; would include workers in council/governmen t departments as well as the general public	• Newspaper/on line readers; those with an interest in the health of the water at Coogee Beach	particular community, potential residents, visitors to the community, people
Text type/s	 Description of museum Procedural (instructions for conducting the visit) Procedural (directions for locating the museum) 	downgrading of Coogee Beach from 'good' to 'poor' in 2015- 2016 (p. 3)	Council's decisions	 Description of the issue/s Persuasive discussion of the issue/s Procedural (instructions for taking action) Procedural (directions to specific landmarks or to a community meeting)
Design features (visual)	Visual elements: tone, line, shape, colour and space; repetition, radiation, dominance, contrast, harmony and balance	• Visual elements of table (p. 12): formal contrasting colours of blue and white, light blue to suggest calm and reference the beach environment; standard contrasting colours of red (poor) and green (good/very good); symbols to show 'stable' (circle) and	elements: long view shot of beach to show context • close up head	colour and space; repetition, radiation, dominance, contrast, harmony and balance

		•	'deteriorated' (downward arrow) Office of Environment and Heritage (logo on cover): flower to show environment; black background to show formality; white image to show pure/new; shape represents openness and balance	•	medium distance shot to show contrast between natural environment and manufactured sign; Khan is more dominant than the sign to show the power of his position	
Design features (linguistic and gestural)	Gestural elements: vectors lead readers between one section of a text and another; may be created by the gestures of the people in photographs, a gaze or lines Linguistic elements: descriptive texts (e.g., descriptive noun groups, pronoun references or substitution, technical terms such as horse-drawn carriage, mostly relational verbs, use of adjectives, usually timeless present tense, topic in Theme position) Directions (e.g., states goal, followed by steps, can be accompanied by		report on data that have been collected; declarative mood (statements); no emotion		elements: uses authority of the informers, e.g., evidence from an analytical chemist and a university associate professor and water quality researcher Linguistic elements: uses technical noun groups, e.g., 'a sewage leak', 'the concentration levels of the chemicals' Linguistic elements: emotive words such as deploy, tackle, woes, co-	Gestural elements: vectors that provide the movement between sections; gestures of the people in the pictures Linguistic elements: descriptive texts (e.g., descriptive noun groups, pronoun references or substitution, technical terms such as scientific terms for environmental concerns of water outlet near beach, geographical terms for environmental features, mostly relational verbs, use of adjectives, usually timeless present tense, topic in Theme position) Directions (e.g., states goal, followed by steps,

visual map, directional vocabulary, mainly action verbs, adverbials of place, imperative mood, strong obligation, verb in Theme position, present tense)	some past tense to re on previou actions, so future tens report on actions tha will occur	port accompanied by visual map, directional vocabulary such as place names, at mainly action
--	---	--

To encourage maximum student engagement and, indeed, inquiry, we would not want to dictate all aspects of the project to the students. Rather, we would want students to be able to negotiate as many aspects of their learning as possible. However, at the same time, we recognise that teachers are required to work within the established curriculum. For this project, our plan is to produce an overall framework that still allows a degree of flexibility for student interest to drive the content. In our plan, students form groups to produce their digital brochure that responds to the inquiry question: What actions need to be taken to ensure the environmental sustainability of Coogee Beach?

It is also important to help students to understand that a brochure is not a genre. It is the medium or format of presentation and it can take on one or more social purposes. As Martin and Rose (2008) observed, 'some texts shift gears, from one configuration to another' (p. 241) and therefore can be called a 'mixed genre' (p. 242). For example, the Hogg (2017) news report in Figure 3.1 is a mixed genre made up of sections that:

- (i) report on the scientific research data;
- (ii) recount the activities of the Randwick Council;
- (iii) declare the need for the state government to support further action.

In being asked to produce a digital brochure as the culminating task, the students might produce a text that incorporates elements of description (report genre), analytical exposition or discussion (expository genre), instructions (procedural genre), directions (procedural genre) and/or diagrams of cause/effect. Additionally, as noted in Table 3.3, we expect that the culminating task would incorporate a range of visual and gestural design elements alongside written linguistic elements.

Most teachers use a template for presenting their teaching plans, either borrowing from available examples or customising their own. Figure 3.4 shows the beginnings of our project plan, recorded on a very simple template. At this stage of planning, only a few details can be added to the template. Further details will be added as part the tutorial activities and when we discuss stage 3 planning.

X711. /	In mains Dunis As Empire and 4-1
Year level: 4	Inquiry Project: Environmental
	sustainability at Coogee Beach
Inquiry question:	School context:
What actions need to be taken to ensure the	
environmental sustainability of Coogee	
Beach?	
	Classroom context:
Learning area/s: English, Humanities and	
Social Sciences, Science	
Content descriptions:	Cross-curriculum priorities, including
English: ACELA1489, ACELA1490,	literacy as a general capability:
ACELA1494	merae y as a general eapaemey.
HASS: ACHASSI077, ACHASSI080,	
ACHASSK088, ACHASSK090	
Science: ACSSU072, ACSHE062,	
ACSIS071	
Assessment:	Resources:
Assessment.	Resources.
Summative:	
Students to design a brochure to inform and	
persuade. Brochure to be assessed in terms	
of:	
•	
Formative:	
Sequence of learning activities:	

Figure 3.4 The beginnings of a plan for an inquiry project, recorded on a simple planning template

Notes to be pinned to Figure 3.4

To be pinned to 'Formative':

Formative assessment will be considered as part of stage 3 planning.

To be pinned to 'Resources':

Three texts have already been identified as part of the early stages of planning. However, other resources will be selected as part of stage 3 planning.

To be pinned to 'Sequence of learning activities':

The sequence of learning activities will be developed as part of stage 3 planning.

To be pinned to 'School context':

When describing the school context, it is useful to consider school priorities, as well as school events and the school's location. Where possible, link the project to these. For example, a school function might offer the possibility of a real-life audience for the students' work, or students might contribute to a local community project.

To be pinned to 'Classroom context':

Consider the class's previous units and learning activities, as well as the students' individual and collective strengths and weaknesses. For example, the class might be skilled at using the internet for research, but some students might need additional instruction about note-making; or, for many students in the class, inferential comprehension might need further development.

At this point of the chapter, stages 1 and 2 planning, based on Wiggins and McTighe's (2011) backward design, have been undertaken. As part of that planning, it is a very good idea for the teacher to compose the text that has been identified as the inquiry project's culminating task. The reason for doing this is not to produce an exemplar text for students. Rather, it is to equip the teacher with first-hand experience of the task being asked of students. In addition, doing the task will assist in the identification of the text structure, the language/linguistic features and other relevant design features, including visual knowledge.

In fact, it is important that the exemplar text does not hone in on the same topic that is part of the culminating task of the inquiry project or unit. If the exemplar text is too close to the culminating task, students may feel constrained and think that you want them to produce that same text. In reality, we want students to transfer knowledge, understandings and skills from a topic and literacies that we explore together, to the topic and literacies of their culminating task.

Tutorial exercises

- 1. Reflect on the suggestions that have been made for macro (big picture) planning. From these, develop a set of principles that could inform co-planning across two or more teachers. Share your principles with other members of your tutorial group.
- 2. Plan, design and compose the multi-genre digital brochure text, that the Year 4 students will be expected to produce at the end of this inquiry project.
 - Once you have completed this task individually, work with other members of your tutorial group to identify the structure, language features and other design elements that have been included and will need to be made explicit to students.
 - Reflect on the texts that have been produced by members of your tutorial group. Is further research needed to ensure that you, as future teachers, have enough knowledge about the type of text (and its characteristics) that you would be asking students to produce?
 - Go to Figure 3.4 and fill in the summative assessment criteria that you would use. Remember to consider Humanities and Social Sciences, Science and English. In addition, check the requirements of ACARA's literacy as a general capability.
- 3. The inquiry project designed as part of this chapter identifies the culminating task as a mixed-genre digital brochure. Propose some alternatives for this task. Think about other forms of digital texts as well as print texts. Justify your choices.

4. For one of the alternative culminating tasks that you suggested, find an exemplar text. As noted earlier, it is important to make sure that the content of the exemplar text is not too close to the content of the culminating assessment task that students are expected to produce. Analyse the text that you have found and identify its significant textual features, as demonstrated in Table 3.3.

Micro planning

The first two stages of Wiggins and McTighe's (2011) backward design provided a way of shaping the macro level of planning, where clear links were made between curriculum (Australian Curriculum), pedagogy (group work, text deconstruction) and assessment (composing multimodal digital brochure). The third stage, which we will now outline, provides a way of mapping the learning and teaching activities that will need to be developed. As Wiggins and McTighe (2011) pointed out, the detailed planning—what we might call the micro planning—is often seen as the starting point of planning in other models. We adopt Wiggins and McTighe's backward planning model because it not only makes more sense to flesh out these details after the macro level has been developed in stages one and two, but the overall process ensures that the teaching is purposeful, that short- and long-term goals are 'clearly defined and wisely blended', that assessment is appropriate, and that students are set up for the transfer of learning (Wiggins & McTighe, 2011, p. 7). In other words, the process works to align curriculum, pedagogy and assessment.

Another point to keep in mind is that the micro planning should not be set in stone. It is our responsibility to identify the unexpected **teachable moments** (MN2) that happen as students work through an inquiry project. Our planning needs to be detailed enough to have well developed lessons on hand, but it also needs to be flexible and responsive to allow just-in-time teaching to occur. When teachers divert from micro planning, there may be a need to revisit the choice of content descriptions from the learning area curriculums (see Table 3.2).

MN2 teachable moments

Unplanned learning opportunities that arise out of something a student has said or done that gives the teacher a prompt to guide students into deeper learning. Teachable moments may last a few minutes or, in some cases, they may send the project into a new direction.

Wiggins and McTighe's (2011) third stage of planning focuses on the development of learning and teaching experiences. The types of questions that might be asked are:

- What knowledge (facts, concepts, principles) and skills (processes, procedures, strategies) will students need to develop so that they can independently produce the assessment task?
- What learning activities can be planned so that students will develop the targeted knowledges, understandings and skills?
- How will we teach the learning activities that lead towards the completion of the assessment task? In other words, how will we sequence the activities and how will learning be differentiated to cater for students' different learning needs?
- What materials and resources are best suited to accomplish these goals? (Based on Wiggins & McTighe, 2011, p. 8)

In using these questions for stage 3 planning, we have worked through all three stages of backward design advocated by Wiggins and McTighe (2011). As already identified in Table 3.1, we have used their logic of backward design:

- 1. If the desired learning outcomes for the inquiry project/unit are that learners will be able to
- 2. then we need evidence of the learners' abilities to

In Figure 3.5, we present a developing sequence of learning activities for the inquiry project that we have been planning in this chapter. This is a continuation of the template shown in Figure 3.4. It is important to note that the project integrates three learning areas (Humanities and Social Sciences, Science, English) and that it is helping students to build the knowledges, understandings and skills of those learning areas in relation to particular content descriptions.

Because the Australian Curriculum is informing our planning in this chapter, we are also mindful of the cross-curriculum priorities and the general capabilities, one of which is literacy (see ACARA, 2018d). Because our focus is the teaching of literacies, we have not teased out the other requirements. However, there are plenty of opportunities for you, as readers, to consider how the inquiry project helps to develop, for example, ICT capacity, personal and social capability, ethical understandings, critical and creative thinking, and so on. In terms of literacies, the annotations on Figure 3.5 clearly indicate that there is a focus on literacies learning as well content learning.

Sequence of learning activities:

- Teacher begins visualisation activity (process drama) that engages the students in a coconstruction of the Coogee Beach environment. (See Lesson 3.1 for a detailed lesson plan)
 - 1(Opportunities for formative assessment)
- Students identify what they already know about preserving beach environments and what they would like to find out. (These form the first components of a KWL 10 chart.)
- Students explore Google Earth (https://www.google.com.au/earth/). Teacher provides 2 scaffolded instruction to help students expertly navigate the site. Use of terminology relating to beach area (e.g., foreshore, coastal area, beach, shore, built 11 environment) and to navigating Google Earth (e.g., 'fly to' tab, 2D and 3D views, search). (See Lesson 3.2 for a detailed lesson plan)

(Opportunities for formative assessment)

Continue process drama and co-construction of map of Coogee Beach location.
 Teacher takes an active role in the process drama by assuming the role of the mayor of Randwick Council. As part of the process drama, students assume roles within the 12

 Coogee Beach community and negotiate and develop an agenda for action (which

will lead to the final/culminating task). (See Lesson 3.3 for a detailed lesson plan)

(Opportunities for formative assessment)

- 4Students identify further questions for investigation (e.g., about the use and management of waste and different views on how to do this sustainably).
- Begin classroom collection of brochures.
- 5Students conduct internet research to locate information about the use and management of natural resources and waste in relation to beaches, building their humanities field of knowledge.
- Teacher and students co-construct a word wall of technical vocabulary (humanities, scientific).
- Guest speaker from an organisation such as a government Beach Protection Authority to address the class.
- Teacher revises note-making with students needing extra help, focusing on identifying the head noun of noun groups and the process of the clause.
- Students view selected sections of DVD/YouTube/television resources about pollution (e.g., the ABC's *War on waste*) and practise note-making using the grammatical devices taught.
- Teacher raises questions about the effects of human actions made by the
 6DVD/YouTube/television resources and the validity of the claims that were
 made.
- Teacher prompts students to check ways of checking claims.
- Students search for evidence to support /negate the claims that have been made. 16
- 7 Students investigate the short section from the *Beachwatch: State of the beaches* 2015-16 report with teacher support.

(Opportunities for formative assessment, via observation and consultation)

(Further activities would be included here)

- Students examine and read a collection of brochures.
- 8 Teacher models a deconstruction activity to examine the social purpose/s of sections of a brochure, then students continue the activity with a range of brochures, using compare-contrast charts. (See Table 3.3 for some ideas about social purpose/s). 17

(Further activities would be included here)

- Students work on a three-level guide based on an example of persuasive text. 18

 (Opportunities for formative assessment)
- Each group of students examines an example of persuasive text to identify its features, including linguistic and visual features. This will include the teaching of grammar.
- Groups report back to the class. This part of the activity investigates the grammar and word details of the text. (See Lessons 3.4 and 3.5 for detailed lesson plans)
- With the teacher, the students begin a more detailed analysis of the text at the clause level (grammar knowledge) and the critical function of word choice. The focus is to compile a list of techniques that can be used to persuade. The list is put on display and

is added to as new ideas are identified or as students become aware of them. 20

• Teacher sets up a writing activity, so that students can experiment with some persuasive techniques by innovating on an already existing text. This provides scaffolding for writing a new type of text.

(Opportunities for formative assessment, via observation and consultation)

(Further activities would be included here)

- Teacher models the writing of a section of persuasive text using the list of techniques compiled by the students. 21
- 9Students begin to write a draft of their brochure, with the teacher scaffolding 22 their efforts. The teacher guides the inclusion of persuasive techniques from the list.
- Students share their beginning efforts with class members, who provide feedback about the effectiveness of the persuasive techniques they have included in their writing. (Formative peer assessment)

(Further activities would be included here) 23

Figure 3.5 A developing sequence of activities

Notes to be pinned to Figure 3.5 (The numbers are not to be included.)

- 1. The plan offers many places where formative assessment could occur. This could include the teacher's observations, consultations, focused analysis of student work, or peer- or self-review conducted by students.
- 2. Content focus: Humanities and Social Sciences (geography)
- 3. Content: Humanities and Social Sciences (evaluating and reflecting on different points of view)
- 4. Content focus: Humanities and Social Sciences (geography)
- 5. The students engage in situated practice, exploring new information.
- 6. Content focus: Science (use and influence of science effects of human actions)
- 7. Content: Science (processing and analysing data investigate patterns and trends)
- 8. Overt instruction: Teacher scaffolds learning about text features.

- 9. Composing text
- 10. A KWL chart is where the teacher helps the students list 'What we already Know,' 'What questions we have' and either 'How we're going to Learn' or 'What we've Learnt.'
- 11. Building word knowledge/vocabulary and metalanguage
- 12. Content: English (language for interaction)
- 13. Literacy is incorporated as an integral part of learning in the Humanities and Social Sciences and in Science.
- 14. Four resources model: Students are revising and using knowledge of grammar (codebreaking) to support meaning-making (text participation) and to develop their ability to produce notes during/after viewing (text use).
- 15. Content: Humanities and Social Sciences (analysing distinguishing facts from fiction)
- 16. Students are learning to evaluate sources of information and to read critically. Four resources model: Students are learning to be critical readers (text analysis).
- 17. This activity provides an opportunity for the teacher to ask students to identify different ways that authors present information and the differences between the language of opinion and feeling and the language of factual reporting. Content: English (language for interaction)
- 18. Four resources model: Enhancing different levels of comprehension (text participation) and learning to be critical readers (text analysis).
- 19. Working with grammar, word and visual knowledges.
- 20. This helps to develop an appropriate metalanguage (e.g., rhetorical questions, emotive words, anecdotes, repetition).
- 21. Modelling (with the teacher talking aloud) allows the students to observe how the teacher would do the task. By talking aloud, the teacher gives insights to students about some of the thinking that he/she is using, including the use of metalanguage.
- 22. Teachers typically follow modelling with opportunities for guided practice, so that students' learning is scaffolded by the teacher. Content: English (expressing and developing ideas in words and visuals)
- 23. Students will then need time to practise independently. Teachers' evaluation/s of student progress will determine whether more modelling and guided practice are needed for the whole class or for some students.

Tutorial exercises

- 1. From the sequence of learning activities in Figure 3.5, choose one point where we suggest that further activities for the teaching of literacies would be developed.
 - Identify four or five activities that you think would be appropriate.
 - What literacies knowledges have you included (e.g., text knowledge, grammar knowledge, word knowledge, visual knowledge)?
 - How do these knowledges stand in relation to the rest of the inquiry project plan?
 - Do you have a balance across knowledges or have you prioritised one or two?
 - Justify your decision/s.
- 2. Consider a pedagogy of multiliteracies. Some of the annotations on Figure 3.5 show where this pedagogy has been applied.
 - Where else has a pedagogy of multiliteracies been used in the plan?
 - Is there a balance of the components of a pedagogy of multiliteracies?

- How might you move across the components to ensure student learning and transfer of learning?
- 3. Consider the four resources model. Figure 3.5 indicates some use of the model.
 - Which literacy resources from the four resources model would you aim to develop?
 - Have you devised activities that cover the full range of resources?
 - Are you offering a balanced literacy program? Justify your responses.

CLASSROOM APPLICATIONS: Using process drama

A core part of our inquiry project is the adoption of **process drama** (MN3). Process drama is a form of applied theatre in which students and the teacher (in the role of facilitator) 'constitute the theatrical ensemble and engage in drama to make meaning for themselves' (Bowell & Heap, 2013, p. 6). It includes activities that are improvised in the fray of practice and takes its form from the dramatic action, reaction and interaction of the students and teacher facilitator. In this way, process drama is a mechanism for providing inclusive activities that engage all students, especially those who benefit from multiple forms of communication for developing knowledges, understandings and skills.

MN3 process drama

A collaborative 'narrative-in-action' that engages students and allows exploration of a topic and the expression of ideas and learning as students take on different roles.

There is no prepared script for process drama; rather, students in role have permission to explore the inquiry question from different viewpoints. Acclaimed drama educator Heller (1995) explained that process drama helps to transform school from a place where teachers tell students what to think, to a place where teachers help students to experience thinking. In addition, recent research by Dobson and Stephenson (2018) provided evidence of process drama being used to help writing become more meaningful for students, building confidence and giving them an authentic voice. They described process drama as having positive effects on students' writing. Indeed, older research has indicated the way that process drama is a medium where students can emphathise with an experience in order to make sense of it. Manna (1996), for example, highlighted how process drama can help to make abstract or unknown concepts more concrete, accessible and relevant.

Beryl has worked with a Year 3/4 multi-age classroom teacher to use process drama as the basis for exploring a moral issue in science education that did not have a predetermined answer (see Exley & Luke, 2010). In this particular inquiry project, two visiting teachers took on the role of scientists who held competing views on the purpose of scientific knowledge. Through this approach, students were brought into a moral tension. The culminating task was the development of a multimodal persuasive presentation that was delivered to the school community. Community members then voted on the position that they could morally support and the results were returned to the students for discussion.

Another Year 2 teacher used process drama to heighten the engagement of culturally and linguistically diverse students as they sought to explore issues around rainforest sustainability. A number of the students in the class were African refugees and had prior knowledge of rainforests (Exley, 2007). In this case, process drama reformed the role of the teacher and the students. The teacher became a 'learning designer and manager' and the students became 'burgeoning experts' (Exley, 2007, p. 107). Students' multiple outside-of-

school experiences were appreciated in the drama and contributed to their sense of belonging. When students are involved in process drama, they understand more about the complexities of events and they can forge stronger emotional connections to the content. This is especially important when students are still learning Standard Australian English (SAE).

Even though Coogee Beach is a real suburb of Sydney in New South Wales, it would not be feasible for most classes to visit the site. Process drama is a way of bringing the sustainability issues of Coogee Beach to students. Lessons 3.1, 3.2 and 3.3 show how process drama might be used to orientate students to the inquiry project. These activities set the stage for students to form working groups, each of which will produce a mixed genre digital brochure that responds to the inquiry question: What actions need to be taken to ensure the environmental sustainability of Coogee Beach?

Lesson 3.1 Visualising Coogee Beach

Time: Approximately one hour

Resources

Floor space for students to lie down

Background beach music and sounds (e.g., soft lapping water, seagulls)

Approximately 50 blank cardboard speech bubbles (approximately 10cm × 8cm)

KWL chart for recording students' responses

Activities

• Clear space on the carpet/floor; students to take off shoes and sit in a circle. Tell students they will do a drama activity involving **visualisation**. (MN4)

MN4 visualisation

Through the visualisation activity, students and the teacher coconstruct Coogee Beach on the speech bubbles. This means that there is a record of what was said and this will help to develop a context for the inquiry project.

- Dim the light in the room. Ask students to lie down and close their eyes. Play background 'beach' sounds.
- Say: Listen. (Wait 5 seconds) Listen. (Wait 5 seconds) What can you hear?

- Tap 4 or 5 students to get their responses. Write their responses on the speech bubbles.
- Say: Picture a beautiful beach with white sand and soft lapping water. You've been to this beach before and you like it. Stretch your toes to touch the water. Imagine standing in the cool, shallow water. It soothes your feet as the gentle lapping water breaks over your toes and splashes your ankles. It's salt water, so you can feel the sun drying the salt. Your skin feels a little tighter.
- Continue with this visualisation and **contextualisation** (MN5) activity. Say: Listen. (Wait 5 seconds) Listen. (Wait 5 seconds) What can you hear?
- Tap another 4 or 5 students to get their responses. Again, write their responses on the speech bubbles.

MN5 contextualisation

By allowing students to co-create the scene, their diverse prior knowledges can contribute to a shared context.

• Say: It's quite a bright day and the sun is shining overhead. You look around, but you have to squint as you turn towards the sun. In the distance, you can see a young couple walking along the beach. On the other side, you see a young family splashing in the shallow water. What else do you expect to see at this place?

- Repeat the tapping and scribing.
- Say: What do you expect to be able to smell at this place?
- Repeat the tapping and scribing.
- Say: You turn round and walk up to the road. Now you can smell something. What is it?
- Repeat the tapping and scribing.
- Say: I can smell something else. It smells like chips! Oh, the fish and chips shop is right across the road. Lots of people come to Coogee Beach for hot fish and chips and a walk along the beach. The seagulls are shrieking, clamouring for the right to dive towards the chips that spill from a child's lap. You wonder how the seagulls can keep their pristine, snowwhite colour in this environment.
- Tap students to describe the smells, sights, sounds. Write these on the speech bubbles.
- Say: So, what are you doing at the beach today? Why are you here?
- Tap students to respond. Scribe.
- Background music plays for another 2 minutes. Ask students to stretch their toes and hold for 2, 3, 4, 5 seconds, then relax. Repeat the stretch, hold and relax for the calves, thighs, stomach, chest, shoulders, arms, fingers, mouth, nose and eyebrows. Ask students to wriggle their toes, then their legs, stomach, arms and head. When they are ready, they can open their eyes and sit up.
- Students sit in a circle on the floor. Ask them if they liked the visualisation exercise. **Start to gather information** (MN6) about what students already know. Ask what they know about beach environments, the importance of beach environments, and the effects of humans on those environments. Ask them what they'd like to learn about beach environments and the impact of humans. Record students' responses on the chart. Organise the responses into 'What we know' and 'What we'd like to know or learn.'

MN6 Gathering information

The teacher begins to focus the students on knowledge that will contribute to their understandings of the curriculum. The students'

responses will establish a focus for inquiry and will therefore start to lay the foundations of the project.

Formative assessment

- Humanities and Social Sciences content: What do students know about the importance of the environment, including natural vegetation and the use of natural resources, waste and waste management. What technical vocabulary did they bring to the discussion?
- Science content: What do students know about the effects of human actions? What technical vocabulary did they bring to the discussion?
- Cooperation during drama: Did the students engage with the visualisation?
- Motivation for learning: How motivated are students to suggest inquiry questions?
- Language skill: How descriptive were the students' responses? Did they use technical language? What type/s of adjectives were used **describers** (MN7) or **classifiers**? (MN8)

MN7

Describers are adjectives that describe something in everyday terms. We would expect to see describers in narratives or in causal speech, for example, 'lots of chemicals'.

MN8

Classifiers are adjectives, but they are more scientific. We would expect to see these types of adjectives in information reports prepared by professionals, e.g., 'elevated levels of the sewage-derived chemicals'.

Lesson 3.2 Building the Coogee Beach community

Time: Approximately one hour

Resources

Floor space for large 'map'

Large (approximately $2m \times 2m$) paper, cloth or vinyl, with light-coloured background (for drawing the map)

Speech bubbles of students' responses from previous lesson

Nikko pens

25 post-it sized coloured squares in four different colours (green, pink, yellow, blue)

Glue

Name badge holders and blank name badge cards (1 per student)

Activities

- Clear space on the carpet/floor for the map. Students to sit in circle around the map. Ask students to recall what they know about Coogee Beach (based on the process drama activity). While students are offering suggestions, hand out speech bubbles from previous lesson that match the students' answers.
- Draw ocean line on the map (based on real map, see Google Earth). Tell students that this is a map of Coogee Beach.
- Show students the Google Earth map of Coogee Beach in the satellite and terrain views. Notice the contrast between green spaces and the suburbs and the different colours of the water. Talk about the built environment on the beach front. Discuss the lines in the sand and the items on the beach.
- Ask students to identify what they can see and then transfer to the map on the floor. Suggestions should include title, compass north,

- scale, names of townships, geographical features, places of community interest.
- As this happens, ask each student a series of questions so that he/she identifies with a character role from Coogee Beach, e.g., How do you know? How long have you been at Coogee Beach? What is your name? Do you work in the community? Make up a name badge for each student to wear with name, age and community role (e.g., teacher, student, shop owner, personnel of a Beach Protection Authority, member of the Coogee Beach Surf Lifesaving Club, environmentalist, Randwick Council employee, water tester). Continue until all students have a role.

Formative assessment

- Humanities and Social Sciences content: What do students know about the importance of beach environments, the natural vegetation, waste and waste management? What do they know about community roles that would engage with these topics?
- Science content: What do students know about the effects or impact of human actions? What do they know about the community roles that would engage with this topic?
- Cooperation during drama (English): Did the students engage with the role allocation?
- Motivation for learning: How motivated are the students to engage in the inquiry topic?
- Language skill: How descriptive were the students' responses? Did they use everyday terms or technical terms? Did they use language appropriate to their role?

Lesson 3.3 Role play

Time: Approximately one hour

Resources

Classroom set up in town hall style with lectern at front

Students wear role badges from Lesson 3.2

Map of Coogee Beach on display (from Lesson 3.2)

Dress-up props for teacher to take on role of Mayor of Randwick Council

Activities

- Students put on name badges and stand in cleared area of the classroom. Start with milling activity. Students walk around for 1 minute. Teacher claps hands; students stop walking. Turn and talk to someone from the community. Tell them what you know about the community for 1 minute. Repeat 3 times.
- Bring students to seats. Set up as town hall. Tell students you are going to leave the room and will come back as someone else. While outside the room, put on a suit jacket and a prop or two (e.g., glasses, brief case) that will help you get into a formal role.
- Return to the town hall meeting. Thank the residents of Coogee Beach for attending. Tell them you are the Mayor of Randwick Council and that you are aware of the community unrest about the sewage that is polluting Coogee Beach. You are here to dispel myths and to answer questions. Take questions from the floor and allow students to also 'speak back' from their characters' viewpoints.
- Call a close to the town hall meeting.

Formative assessment

- Humanities and Social Sciences content: What knowledges are students developing about the issues associated with beach environments, the natural vegetation, waste and waste management? How were they using their community roles to contribute to the discussion about these topics? What new/additional technical vocabulary are they using in their discussion?
- Science content: What knowledges are students developing about the effects of human actions? How are they using their community role to express their characters' views?

- Cooperation during drama (English): Did the students engage with the role allocation? Did they use the language of feeling and opinion?
- Motivation for learning: How motivated are the students to suggest inquiry questions or to offer opinions?
- Language skill: How descriptive were the students' responses? Did they use everyday terms or technical terms? Did they pick up on the technical language that you modelled? How persuasive were their counter-arguments? e.g., Did students use high modality, such as 'should' or 'must'? Did they state a thesis, a position, arguments for their point of view? What persuasive devices did they use in their counter-arguments?

Reflection Activities

- 1. Reflect on the suggestions made here for planning the details of an inquiry project. From these, develop a set of principles for planning at this micro level.
- 2. This chapter offers a developing sequence of learning activities for an inquiry project that integrates three learning areas. Some of the activities focus on persuasive text. However, the students are expected to produce a mixed-genre brochure. What activities would you add to the sequence to prepare the students for other components of the digital brochure task?

CLASSROOM APPLICATIONS: Focusing on overtinstruction

In the previous section of this chapter, we provided details about how to use process drama to involve and engage students in learning. The process drama described in Lessons 3.1, 3.2 and 3.3 immersed students in activities that invited them to co-construct the community of Coogee Beach and to share relevant prior knowledge about beach pollution and waste management. However, these activities are only part of the overall plan for student learning. In this section of the chapter, we provide an example of **overt instruction** (MN9)—the targeted teaching of an aspect of literacy relevant to the class project being undertaken.

MN9 overt instruction

This involves the targeted teaching of an aspect of literacy relevant to the class project being undertaken.

Although there has been considerable debate about the purpose and effectiveness of overt instruction in literacies pedagogy (see Purcell-Gates, Duke, & Martineau, 2007), it is widely acknowledged that effective teaching does include instruction that is scaffolded by the teacher to help students to do a task that they could not do alone (Freebody, 2007). In the project described in this chapter, students need to have specific knowledge about language if they are going to effectively comprehend what they read, both at the literal and critical levels. Lesson 3.4 illustrates a textual analysis designed to assist students with making meaning from

a text. Lesson 3.5 is a focused lesson that provides essential scaffolding for literal and critical levels of comprehension. Lessons such as these might be planned for the whole class or for a targeted group of students.

Lesson 3.4 Textual analysis

Time: Approximately one hour

Resources

Copies of the Hogg (2017) news article, one copy per pair of students

A suitable place for recording ideas – whiteboard, butchers paper or smart board

Activities

- Show students the title and the visuals from the article. Ask them to predict what the article might be about. Take the time to collect as many ideas as they can offer. Record the students' suggestions on the whiteboard/butchers paper/smart board to show that you value their contributions.
- Put students in **mixed ability groups** (MN10) and ask each group to select one page of text. Students read the page of text, identifying any words they need to know (e.g., taskforce, deployed, unanimously) or want to discuss.

MN10 mixed ability groups

Organising students into mixed ability groups is a challenging task. Mixed ability groups allow students to support one another as they work through this part of the inquiry. Mixed ability groups also allow different students to bring different sets of knowledges, understandings and skills for the benefit of everyone.

- Deconstruct the structure/stages of this persuasive text (i.e., title, opening statement, background information to support opening statement, counterargument, reinforcement for original position, etc). Discuss the function of each stage: What is the job of each stage?
- **Text analysis**: (MN11) What is the sub-text? How does Hogg put the text together so that it operates as a persuasive piece of text? How do the sections of text flow or connect?

 Ask each group of students to identify one participant from the news report and identify the way that participant has been constructed. For example, Councillor Kathy Neilson is constructed as cooperative; Associate Professor Stuart Khan is constructed as knowledgeable. Consider which words are associated with which participant and how those word choices construct particular identities.

MN11 Text analysis

This lesson uses textual analysis to make visible how meaning is constructed.

• During the lesson, the teacher would work with students to deconstruct Hogg's (2017) text, to gain an explicit understanding of how the text makes meaning. In a subsequent lesson, we would expect that the teacher would help students to compose or create texts that use these features. During such lessons, students would learn and use a metalanguage (i.e., learn and use a technical language about language) that enables them to talk with an awareness of specific linguistic features.

Formative assessment

- Humanities and Social Sciences content: Do the students know and understand the issues surrounding the discharge of treated effluent?
- Science content: Do the students know and understand the impact/s of human actions in relation to sewage waste in water?
- Language skill (English): Can students describe the stages and functions of the text? What words (vocabulary) did the students want to discuss?
- Language skill (English): Could the students complete the critical analysis of participant groups to identity which participant identities were being constructed? Could they identify the language of opinion and feeling as opposed to the language of factual reporting and recording?

Lesson 3.5 Comprehending the written text

Time: Approximately 40 minutes

Resources

Copies of Hogg (2017) article, one per pair of students

Activities

- Teachers need to offer overt instruction to assist students to comprehend the meaning of unfamiliar texts and to understand their **language features** (MN12). By deconstructing a text, teachers can show students how to identify the function of each part of each clause—i.e., what meaning is made in each section of the clause. This involves identifying:
- the main verb of each clause (what is happening);
- the main nouns (who or what is doing the happening);
- the adverbials (when, where, how, why, and with whom in relation to the happening).
- As an example, take the following sentence from the article (see Figure 3.1): 'A special taskforce will be deployed to tackle Coogee Beach's faecal pollution woes, after new tests confirm the presence of "sewage indicators" in both dry and wet weather.'

This sentence has two clauses:

- i. A special taskforce will be deployed to tackle Coogee Beach's faecal pollution woes
- ii. [after] new tests confirm the presence of 'sewage indicators' in both dry and wet weather.

The second clause is complicated because it starts with the conjunction 'after', which sets up a timing function or a sequence of events where clause (ii) is the earlier event and clause (i) is the latter event.

MN12

These language features need to be discussed so that students are better able to comprehend the text.

Formative assessment

• Language skills (English): Do the students have a metalanguage to describe the elements of the clause and how those elements function?

• Language skills (English): Do students identify the conjunctions and the purpose they serve in sentences?

CLASSROOM APPLICATIONS: Extending the ideas to other learning areas

Chapter 2 and this chapter have offered a discussion of some of the foundations for planning for the teaching of literacies and a process for using backward mapping, along with teasing out what a teaching unit (in this case, an inquiry project) might look like. Although the planning in this chapter refers to the learning areas of the Humanities and Social Sciences, Science and English, and relates to Year 4, the approach could also be applied to other learning areas and to other year levels, both primary and secondary. We now present some examples of how the inquiry project described in this chapter might be applied or extended to other learning areas. We recommend that readers think deeply about how some of these ideas might apply to their teaching area/s.

Health and Physical Education

The news article about Coogee Beach identifies health issues that could be explored. This is evident in the Hogg (2017, March 3) article through the references to 'Coogee Beaches faecal pollution woes', 'the presence of "sewage indicators" and 'a significant public health risk.' The full *Beachwatch: State of the beaches 2015-16* report (Office of Environment and Heritage NSW, 2016a) also offers information about beaches and health risks. Investigations of these issues could inform student-prepared media presentations for television, health reports, community leaflets, online health advice, and so on.

Mathematics

The news article about the problems at Coogee Beach (Hogg, 2017, March 3) and the *Beachwatch: State of the beaches 2015-16* report (Office of Environment and Heritage NSW, 2016a) provide material that could be developed into Mathematics investigations. These could incorporate discussion of the language used in the news article about time (e.g., 'tests ... taken six days after significant rainfall, on February 14, and again on February 15, after about 44mm of rainfall'; 'three samples over a 15-minute period') and about how time is important in making sense of the claims in the article; deconstruction of particular parts of the report and how mathematical information is calculated and presented; representing some of the data graphically; and writing reports containing mathematical information in different forms (e.g., tables, different types of graphs).

For the inquiry project presented in this chapter, we selected resources that were suitable for Year 4 students. This included taking one section of a large data table, rather than using the complete table. The full *Beachwatch: State of the beaches 2015-16* report (Office of Environment and Heritage NSW, 2016a) is detailed and provides a plethora of data tables and a range of graphs that could be useful for other year levels.

In this chapter, we referred to the report published in 2016, as that was the report that was mentioned in the stimulus news article. However, similar reports are published each year

and are readily accessible from the internet. Those reports offer opportunities for doing some comparisons of beach suitability over time.

History, and/or the Arts

The story of Coogee Beach as a location that is losing favour with tourists or 'recreational users' could provide the basis for an inquiry into how a location might re-invent and revitalise itself. A class might investigate or research real-life examples where communities have attempted to 'turn around' difficult economic times. Two examples are the 'mural towns' of Chemainus in Canada (see Chemainus Festival of Murals Society, 2018) and Bowen in North Queensland (see Tourism Town Australia, 2018), where artists were commissioned to paint wall murals as a record of local history. The murals are advertised as drawcards for tourists. Murals from the town of Bowen are shown in Figure 3.6.

INSERT FIGURE 3.6 HERE (THIS FIGURE COMPRISES 3.6a AND 3.6b)

Figure 3.6 Murals in the town of Bowen, North Queensland

A similar example is the town of Laramie in Wyoming in the USA (see Laramie Mural Project, 2018), where murals have been added to walls throughout the town to demonstrate Laramie's cultural assets. In this case, the works have resulted from a collaboration among the University of Wyoming Art Museum, Laramie artists, business owners and an organisation called the Laramie Mainstreet Alliance. An example of one of the murals is shown in Figure 3.7.

INSERT FIGURE 3.7 HERE (THIS FIGURE COMPRISES 3.7a AND 3.7b)

Figure 3.7 Street scenes from Laramie in Wyoming, USA, showing some of the town's murals

In all three cases, considerable information is available on the internet about the towns and their murals. Literacies activities could be embedded into the processes of researching and (re)presenting the local history of one of the towns and its local region, as well as the history of the mural project itself. A range of other activities could be included as part of such a project. These might include writing invitations to community personnel to attend an event, such as the unveiling of the first mural in Coogee Beach, creating an advertising campaign to highlight the community's effort to improve public opinion of Coogee Beach, writing briefs for artists, and so on.

The Laramie Mural Project's (2018) website discusses and offers examples of a range of texts that might be useful. These include audio tour recordings where the artists talk about their work, a walking tour brochure, biographies of the artists, and videos about the production of some of the murals. The murals also provide opportunities for considering how visual meanings are made. As is evident in Figure 3.7, the murals offer a range of visual designs and meanings, accompanied by the texts of Laramie's streets (e.g., street signs, signs on buildings).

Economics and Business

The ideas about a town reinventing itself for tourism could also be used in Economics and Business, to contribute to the development of consumer and financial literacy skills, enterprising capability, and responsible and informed decision-making. Examples on offer

as part of the Laramie Mural Project (2018) include free activities (e.g., town walks for tourists, artist meet-ups) to encourage interest in the town and its businesses, as well as the sale of merchandise such as t-shirts. An example of a t-shirt based on one of the Laramie murals is shown in Figure 3.8.

INSERT FIGURE 3.8 HERE

Figure 3.8 A t-shirt based on one of the Laramie murals

Tutorial exercises

- 1. The section above has offered some suggestions about extending the ideas presented in this chapter to other learning areas.
 - How might you use these ideas in your teaching area/s?
 - Check the curriculum for relevant content descriptions. Which ones would provide a focus?
 - What would you expect students to be able to do at the end of the inquiry project or unit?
- 2. Compare your notes with other members of your tutorial. How might you adjust your initial ideas?
- 3. Use the literacies document/s appropriate to your context (e.g., the ACARA literacy as a general capability materials) to consider the literacies that you would develop in an inquiry project or unit such as this.
- 4. Map out a lesson plan for developing one relevant literacy knowledge (e.g., textual, grammar, word and/or visual knowledge).

Conclusion

In this chapter, we have considered a process for planning literacies learning, using an example of an inquiry project that incorporates the Humanities and Social Sciences, Science, and English. We recognise that the current push for high literacies standards in schools and the associated demands for teacher accountability sometimes suggest that both curriculum and pedagogy should be narrow and focused on national tests (i.e., NAPLAN). However, we believe that a worst-case scenario is if students are given a school literacies program full of skill, drill and preparation for standardised testing.

In this chapter, we have shown that teachers can build on students' interests, set up collaborative group work, set challenging tasks connected to the real world, allow flexibility for teachable moments, and still have an overt focus on literacies knowledges, understandings and skills. Inquiry projects that link to real world problems give students a say and engage them in classroom learning that will help achieve the learning goals specified by curriculum documents. By opening up the curriculum to negotiation with students, it is more likely that they will be engaged in learning. This is because the learning both builds on and takes them

beyond their lifeworld experiences. However, planning for literacies learning is not a simple process. Its complex decision-making involves:

- knowing the students in a class and determining their learning needs;
- understanding relevant curriculum documents and identifying appropriate learning for the particular class;
- coordinating teaching, learning and assessment (perhaps across a team of teachers);
- selecting and/or making resources;
- designing and sequencing appropriate learning activities;
- being able to monitor, evaluate and assess students' progress;
- doing the jiggling, adjusting, remediating, shaping and building that Luke (1999, p. 12) identified as essential components of teachers' work.

In order to manage these multiple elements and to cater for student diversity, it is important that teachers have deep pedagogical knowledge and that they become expert adapters (McNaughton & Lai, 2009). These capacities are needed in order to shape, customise and modify learning experiences, so that all students can be successful and can develop the literacies that they will need today and for their futures.

Tutorial exercises

- 1. The template in Figure 3.4 does not provide details about the school context. Think about a school where you teach, have taught or have observed, to complete this section of the template. How would you adjust the sequence of learning activities described in Figure 3.5 to suit the school context you have described?
- 2. Similarly, the section in Figure 3.4 about the classroom context was left empty. Using a class that you teach, have taught or have observed, complete this section of the template. How would you adjust the sequence of learning activities to cater for your diverse class? What activities would become important for your classroom context? What activities might not be relevant?
- 3. The following YouTube videos might be useful for teaching about persuasive writing. Evaluate each of these resources and identify their advantages and disadvantages for use with students.

— EducationWithVision—The art of persuasive writing: A few pointers—www.youtube.com/watch?v=AJ2IVKruQSw
— Knatim—4 Persuasive writing— www.youtube.com/watch?v=c8-tJhQC_wv
— Teaching Without Frills—Persuasive writing for kids: What is it?— www.youtube.com/watch?v=hD9arWXIddM
— Total Education Media—NAPLAN – Persuasive writing— https://www.youtube.com/watch?v=8mvzjPX5di8

- 4. Search YouTube and the internet for other resources that could be used as part of the project described in this chapter. What criteria would you use to evaluate potential resources?
- 5. Use Wiggins and McTighe's (2011) three stage process of backward design to plan an inquiry project or teaching unit that is separate from the project described in this chapter. What are the advantages of using this process? What are the disadvantages?

Further reading

The following texts provide a list of engagement strategies for using process drama in the classroom. They give examples of how to use drama for learning; that is, they are not about how to put on a drama production.

- Bowell, P., & Heap, B. (2013). *Planning process drama: Enriching teaching and learning* (2nd ed.). London, UK: Routledge.
- Ewing, R., Hristofski, H., Gibson, R., Campbell, V. & Robertson, A. (2011). Using drama to enhance literacy: The 'school drama' initiative. *Literacy Learning: the Middle Years*, 19(3), 33–39.

The following texts offer many ideas for planning literacies learning.

- Humphrey, S., Sharpe, T., & Cullen, T. (2015). Peeling the PEEL: Integrating language and literacy in the middle years. *Literacy Learning: the Middle Years*, 23(2), 53–62.
- Kitson, L. (2016). Building literacy capabilities for comprehension in the curriculum: A framework for teachers. *Literacy Learning: the Middle Years*, 23(1), 54–64.

For those who need to develop confidence with the use of traditional and functional grammar terms, the text by Droga and Humphrey (2005) is a useful option. It uses terms from the *Australian Curriculum: English* and provides many examples to help explain the terms, as well as many exercises for checking for understanding. Answers are listed in the back of the book. The Exley, Kervin and Mantei (2016) text also makes a direct connection to the traditional and functional grammar terms used in the *Australian Curriculum: English*, providing examples of text analysis for Years 3–6.

- Droga, L. & Humphrey. S. (2005). *Grammar and meaning: An introduction for primary teachers*. Marrickville, NSW: Target Texts.
- Exley, B., Kervin, L., & Mantei, J. (2015). Exploring with grammar in the primary years: Learning about language in the Australian Curriculum: English. Norwood, SA: Australian Literacy Educators' Association.

References

ABC Education. (2017). War on waste [Television series, Podcasts]. Retrieved from http://education.abc.net.au/home#!/digibook/2597026/war-on-waste

- Australian Curriculum, Assessment and Reporting Authority [ACARA]. (2018a). Australian Curriculum: English. Retrieved https://www.australiancurriculum.edu.au/f-10-curriculum/english/
- Australian Curriculum, Assessment and Reporting Authority [ACARA]. (2018b). Australian Curriculum: Humanities and Social Sciences. Retrieved from https://www.australiancurriculum.edu.au/f-10-curriculum/humanities-and-social-sciences/
- Australian Curriculum, Assessment and Reporting Authority [ACARA]. (2018c). Australian Curriculum: Science. Retrieved from https://www.australiancurriculum.edu.au/f-10-curriculum/science/
- Australian Curriculum, Assessment and Reporting Authority [ACARA]. (2018d). General Capabilities: Literacy. Retrieved from https://www.australiancurriculum.edu.au/f-10-curriculum/general-capabilities/literacy/
- Bowell, P., & Heap, B. (2013). *Planning process drama: Enriching teaching and learning* (2nd ed.). London, UK: Routledge.
- Chemainus Festival of Murals Society. (2018). Chemainus Festivals of Murals Society [Website]. Retrieved from https://muraltown.com/
- cobb+co museum. (n.d.). *cobb+co museum, Toowoomba* [Brochure]. Toowoomba, Qld: Queensland Government.
- Dobson, T., & Stephenson, L. (2018). 'I think it fits in': Using process drama to promote agentic writing with primary school children. *Literacy*. Advance online publication. Retrieved from https://onlinelibrary.wiley.com/journal/14679345
- Exley, B. (2007). Meanings emerging in practice for linguistically and culturally diverse students: An early years multiliteracies project. *International Journal of Pedagogies and Learning*, *3*(3), 101–113.
- Exley, B. & Cottrell, A. (2012). Reading in the Australian Curriculum English: Describing the effects of structure and organisation on multimodal texts. *English in Australia*, 47(2), 91–98.
- Exley, B., & Luke, A. (2010). Uncritical framing: Lesson and knowledge structure in school science. In D. Cole & D. Pullen (Eds.), *Multiliteracies in motion: Current theories and practice* (pp. 17–41). London, UK: Routledge.
- Exley, B. & Mills, K. A. (2012). Parsing the Australian Curriculum English: Grammar, multimodality and cross-cultural texts. *Australian Journal of Language and Literacy*, 35(2), 192–205.
- Freebody, P. (2007). *Literacy education in school: Research perspectives from the past, for the future*. Camberwell, Vic.: Australian Council for Educational Research.

- Heller, P. (1995). Drama as a way of knowing. York, ME: Stenhouse.
- Hogg, M. (2017, March 3). A taskforce will tackle Coogee Beach's pollution as test confirm it's Poo-gee. *Southern Courier*. Retrieved from https://www.dailytelegraph.com.au/newslocal/southern-courier/a-taskforce-will-tackle-coogee-beachs-pollution-as-test-confirm-its-poogee/news-story/2cd9a20db636c7d11ea108e0f9f9d3d2
- Laramie Mural Project. (2018). Local artists reflecting Laramie's cultural assets [Website]. Retrieved from http://www.laramiemuralproject.org/
- Luke, A. (1999). Education 2010 and new times: Why equity and social justice still matter, but differently. Retrieved from http://education.qld.gov.au/corporate/framework/online.htm
- Manna, A. (1996). Language use through drama. In A. A. McClure & J. V. Kristo (Eds.), *Books that invite talk, wonder and play* (pp. 95–109). Urbana, IL: National Council of Teachers of English.
- Martin, J. R., & Rose, D. (2008). Genre relations: Mapping culture. London, UK: Equinox.
- McNaughton, S., & Lai, M. K. (2009). A model of school change for culturally and linguistically diverse students in New Zealand: A summary and evidence from systematic replication. *Teaching Education*, 20(1), 55–75.
- Office of Environment and Heritage NSW. (2016a). *Beachwatch: State of the beaches 2015-16*. Sydney, NSW: Author. Retrieved from http://www.environment.nsw.gov.au/resources/beach/ar1516/state-of-beaches-annual-report-2016-summary.pdf
- Office of Environment and Heritage NSW. (2016b). *Beachwatch: State of the beaches 2015-16: Statewide summary and how to read this report*. Sydney, NSW: Author. Retrieved from http://www.environment.nsw.gov.au/resources/beach/ar1516/state-of-beaches-annual-report-2016-summary.pdf
- Purcell-Gates, V., Duke, N. K., & Martineau, J. A. (2007). Learning to read and write genrespecific text: Roles of authentic experience and explicit teaching. *Reading Research Quarterly*, 42(1), 8–45.
- Tourism Town Australia. (2018). Bowen tourism town: About Bowen murals [Website]. Retrieved from https://www.bowentourism.com/organisations/bowen-murals.73994/
- Wiggins, G., & McTighe, J. (2011). *The understanding by design guide to creating high-quality units*. Alexandria, VA: Association for Supervision and Curriculum Development.
- Willis, L-D., & Ritchie, S. (2010). Parents as coteachers of science and technology in a middle-school classroom. In C. Murphy & K. Scantlebury (Eds.), *Coteaching in*

international contexts: Research and practice (pp. 281–303). Dordrecht, Netherlands: Springer.