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Scan is a leading refereed journal that focuses on the interaction between information in a digital age and effective student learning. Scan offers engaging professional support for all educators.

School libraries in a 'learning from home' era

June Wall

In a time of rapid change and disruption for everyone, the school sector has also had to swiftly and radically adapt its approach to teaching and learning. This type of rapid change, coupled with our core commitment to students' learning and wellbeing, has created concern, confusion and anxiety amongst some as to how we continue to operate. School libraries are no different in these responses, except that many of our resources and key tools for learning have been physical items – books!

When libraries and their key resources are not easily accessible, new ways of thinking and opportunities not previously considered are ripe for exploration.

Take this time as an opportunity, develop your skill set (as many other teachers are), and let your curiosity drive strategies to engage students in learning.

What is the situation in regard to school libraries – from the NSW Department of Education?

School libraries in NSW Public Schools are considered to be a core resource for every school community and it is each community's decision as to how the library may be accessed and the type of learning continuity that takes place from the teacher librarian. Essentially:

- School libraries are available as a resource for teachers and students as determined by each school.
- Teacher librarians maintain support for classroom teachers' work by providing resources as needed. They deliver teaching and learning support for the information literacy process or literacy needs within the curriculum.
- Those teacher librarians in a high-risk group (as identified by NSW Health) will continue to be supported to work from home. If you are in this group, other avenues to have the library available for students and staff should be explored with your principal.
- Hygiene practices, as determined by NSW Health, should be put in place to reduce the spread of COVID-19 and to keep you safe. For example, these measures could include:
  - reducing the number of students in the library at any one time in line with recommended space
  - wiping down hard surfaces after student or staff use with antiseptic wipes or equivalent
  - determining appropriate procedures for how to deal with returned books – either wiping down or leaving for a period in quarantine
  - determining a schedule or procedures as to how students may borrow books from the library while keeping everyone safe.
  - Current advice about infection control can be found in the <u>fact sheets</u>.
- The role of the teacher librarian in supporting learning from home is outlined within the <u>Suggested roles and responsibilities</u> page on the department's website.

What is the role of the teacher librarian in a primary school?

As each primary school has its own unique attributes and needs, a primary teacher librarian may have different roles at this time. Some ideas for teaching and learning are below:

- Collaborative development of online learning units with classroom teachers. This may or may not include collaborative teaching online with the classroom teacher.
- Negotiated story time on a weekly basis for each stage. Identify a day and time appropriate for each stage or year level to live stream, or record the session in advance. (Please consider relevant copyright conditions, noted later in this article.) A learning activity could be prepared to support the story, with students submitting their work as part of their requirements.
- Online teaching of specific skills that support current units of work from an information literacy perspective.

- Development of online tutorials for students to use as needed that focus on:
    - the information process
    - digital tools
    - cross curricular projects.

    These tutorials could then be embedded at the appropriate time within classroom teachers' units of work.

- Selection of appropriate resources for each year or stage within each unit of work that would be provided to teachers.
- Development of content or online objects for student learning. For example, at a simple level, use PowerPoint to develop a quiz or game on a specific topic for teacher use.

Circulation

- Schedule year or stage levels to come to the library to collect books previously reserved through Oliver. In this scenario, the library would be a collection point only.
- Once students are back 1 or 2 days a week, borrowing for the students in attendance will need to be organised on a weekly or fortnightly basis. Extend borrowing limits so each student has enough books for 2 weeks at home.
- Negotiate with your principal about library opening at lunchtime. Depending on the number of students in attendance this may be able to occur. However, if playground duties are spread across all staff, it may be the library is not opened at lunchtime for students.

What is the role of the teacher librarian in a secondary school?

Each school will have different levels of attendance and different student needs, especially as the weather gets cooler! Possible ideas for teaching and learning could include:

- Online teaching of specific skills on a small group basis that support current units of work from an information literacy perspective.
- Development of online tutorials for students to use as needed that focus on:
    - the information process
    - digital tools
    - cross curricular projects.

    These tutorials could then be embedded at the appropriate time within classroom teachers' units of work and would be valuable, ongoing tools post COVID-19.

- Selection of appropriate resources for each year or stage within each unit of work that would be provided to teachers.

- Development of content or online objects for student learning. For example, at a simple level, use PowerPoint to develop a quiz or game on a specific topic for teacher use.
- Development of a study skills online course for students in Years 10 to 11.
- Online drop-in times for Years 11 and 12 students to support their research needs.
- Online book clubs to encourage reading. These could be based on the CBCA shortlist or a selection of books that have a food aspect to them, facilitating a gourmet book club – this would encourage students to cook at home! Or form a virtual travel book club, and so on. There are many ways you can personalise the idea to what you know your students would enjoy and be engaged in.
- Sourcing online reading material in a variety of ways – ebooks, fan fiction, magazines, Project Gutenberg.

Circulation

- Schedule year or stage levels to come to the library to collect books previously reserved through Oliver. In this scenario, the library would be a collection point only.
- Once students are back 1 or 2 days a week, borrowing for the students in attendance will need to be through lunchtime or if you can negotiate a time for each student to borrow as they are all in online learning mode. Extend borrowing limits so each student has enough books for 2 weeks at home.
- If your library is open at lunchtime, ensuring numbers are controlled for the size of the space will be critical. You may need to consider that only those who actually need to work will be allowed in as other activities normally held in the library at lunchtime could create social distancing problems.

The key to this is collaboration and sharing

As you can see, there could be a lot of development work on content and resources from the teacher librarian. So why would we all be doing the same? For NSW DoE staff, the Teacher librarian statewide staffroom should be the place where we collaborate to build resources and digital objects and then copy them to the staffroom so that all teacher librarians across the state can share in each other's expertise. Now is the time to bring the strength of the profession – our collegiality and collaboration – to the fore. Let's help each other by sharing anything we build with everyone.

How is your learning curve?

1. Where do we stand with copyright?
   Check out Smartcopying's Remote & Online Learning during the Covid-19 Outbreak page for accurate information.
2. Students (and staff) will need to explore outside their home without physically going out – how can they do this?
   There are many ideas available on virtual excursions and webcams, and so on. From a library perspective, why not build a virtual escape room related to a specific topic or literature item?
3. How else can we support learning and information literacy in an online environment?
   View the recorded online session, Teaching programs in a virtual library (NSW DoE staff only). Presented live on 27 April 2020, this practical 90 minute professional learning workshop explored a variety of strategies that teacher librarians can use to support students who are learning from home.

> Now is the time to bring the strength of the profession – our collegiality and collaboration – to the fore.

When you have spare time (said with tongue-in-cheek!)

While this could be an ideal time to do the following, concentrate on the teaching and learning as your core focus. However, if you do have time, you could consider:

- examining, developing and/or updating the following:
  - School Library Policy
  - Collection Development Policy
  - Procedures Manual
  - Strategic Plan for the library, in line with the School Plan and School Excellence Framework.
- engaging in professional learning. For example, every teacher librarian should know about:
  - Google classrooms
  - MS Teams
  - Seesaw
  - Zoom
  - Skype
- checking out the learning modes and digital tools suggested on Learning from home: Learning modes

As we enter Term 2, look after yourself and your students, and think about what may be possible for your library on the other side of this crisis.

References and further reading

Jones, A. (2020, 21 April). Leading Digital Escape Rooms Online during COVID-19 [Web blog post].

National Copyright Unit. (2020). Remote & Online Learning during the Covid-19 Outbreak.

NSW Department of Education. (2020). Learning from home: Learning modes.

NSW Department of Education. (2020). Statewide staffrooms (NSW DoE staff).

NSW Department of Education. (2020). Suggested roles and responsibilities.

Wall, J. (2020, 27 April). *Teaching programs in a virtual library* [video file] (NSW DoE staff).

How to cite this article – Wall, J. (2020). 'School libraries in a "learning from home" era'. *Scan, 39*(4).

Teaching visual grammar in the context of digital texts

Jennifer Asha, literacy educator, explores using the metalanguage of visual grammar and targeted questioning to scaffold student interpretation of digital texts.

Introduction

I love using all manner of rich texts to encourage students and teachers to think about their interpretations and understandings. In this article, I look closely at a selection of quality digital texts to share my understanding of the metalanguage of visual grammar and the potential of targeting teacher questioning to scaffold student interpretation of digital texts.

Using digital texts in the primary classroom gives teachers the opportunity to teach the skills students need to comprehend and interpret texts. The NSW English K-10 Syllabus tells us to use digital texts in our literature repertoire for a wide range of literary purposes, as Outcome EN1-10C shows with the inclusion of a content descriptor - 'engage in wide reading of self-selected and teacher-selected texts, including digital texts, for enjoyment, and share responses' (English K-10 Syllabus, 2012).

The syllabus also suggests the type of talk that should be included in our lessons that use digital texts, for instance, Outcome EN2-4A includes the content descriptor - 'use metalanguage to describe the effects of ideas,text structures and language features of literary texts (ACELT1604)' (English K-10 Syllabus, 2012). This particular content descriptor indicates that 'metalanguage' is needed for students and teachers to engage in meaningful conversations around texts, an idea that is reoccurring throughout the English syllabus outcomes.

Metalanguage and questioning

So what is the metalanguage of visual grammar? Metalanguage is a set of terms used to speak about the meanings made within a language. Teachers are already familiar with the metalanguage of grammar to do with the written and spoken word. When we use a visual metalanguage, we are using specific language to describe the way text creators may choose to use visual elements to create meaning. Our syllabus suggests terminologies that have been derived from the work of Kress and van Leeuwen (1996). Examples can be seen in Outcome EN2-2A in the content descriptor – 'create imaginative texts based on characters, settings and events from students' own and other cultures using visual features, for example perspective, distance and angle (ACELT1601, ACELT1794)' (English K-10 Syllabus, 2012) and Outcome EN2- 8B with content descriptor – 'explore the effect of 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 (ACELA1483, ACELA1496)' (English K-10 Syllabus, 2012).

What is notable about these content descriptors, and many others in the syllabus, is not just the inclusion of metalanguage but the way students are encouraged to create meaning and consider the effect on the viewer as a result of the choices made by the text creator. This is due to the functional model of language that underpins the syllabus and encompasses all modes of communication including verbal language, images, gesture, sounds and digital affordances (Derewianka and Humphrey, 2014). I believe that purposeful teacher talk, particularly questioning, can be supportive of this type of student learning.

> The way in which teachers pose questions has the ability to scaffold student thinking and encourage their understanding of the metalanguage of visual grammar.

The questions that follow the description of each digital text are open-ended to promote discussion and allow differences of opinion to be shared. However, they are carefully worded to model the use of visual metalanguage to encourage students to think about possible meanings within the text. The questions are also phrased to encourage engagement in the role of text analyst as students break the visual codes and participate in the meaning systems of the digital texts, interpreting its affect on them as the audience (Freebody, 1992).

Digital texts

Here are some starting points that can be adapted by teachers to make them age and stage appropriate for the students they teach.

Whale by Filmbuilder (https://youtu.be/QodRU8lav7s 3 mins 55 secs) uses stylized, low modality illustrations to tell a simple story of a whale looking for someone to play with.

The characters are depicted in a flattened way and seem to be cut out and stuck onto the background of the ocean. They move unrealistically and do unrealistic things, such as shed tears while underwater. All of these visual choices work together to give the text its lowered modality and help make the theme of 'you have to be a friend to make friends' easily discernible. Towards the beginning of the clip the whale is shown front on, as if it is

swimming towards and up close to the viewer, at an eye level angle. These visual choices help to position the viewer as another sea creature and serve to generate viewer empathy for the character of the whale.

Teachers can prompt discussion about these visual concepts through the use of careful questioning. For example:

- What do you think the text creator is saying to the audience about being a friend?
- How does the text creator use shot size/distance and angle to position the viewer?
- How do the lower modality/less realistic illustrations help you to align yourself with the whale character?

These types of questions contextualise the metalanguage so students are supported in understanding the visual element that is the focus. The questions also support the students to consider the meaning being made within the digital text.

The short story of a fox and a mouse by ESMA Movies (https://youtu.be/k6kCwj0Sk4s 6 mins 20 secs) uses distance as an episode marker.

The clip orients the viewer to the setting with a 'long shot' showing the vast and bleak wintery landscape and then 'zooms' in on the fox, introducing this character. Later in the story, the scene is shown from a 'long shot' again and can be seen to signify the resolution within the narrative structure of the clip.

The text creators have utilised different levels of realism for the setting, the peripheral characters and the main characters. The snow-covered countryside is shown via a realistic, higher modality compared to the characters of the fox and the mouse. In turn, these main characters are illustrated in a more naturalistic manner compared to the owls, with realistic colouring, the shape and texture of real foxes and mice, and with their movements reflecting those of living creatures. The auxiliary characters of the two owls are represented in a much lower modality. They are evidently drawn, with exaggerated body shapes and unrealistically coloured plumage. The effect of this visual choice is to encourage suspension of disbelief and to alleviate viewer awareness of the unlikeliness of an alliance between a predator and its prey.

Teacher prompts can guide students towards an interpretation of the digital text. For instance:

- How is distance used to signify certain points in the narrative structure?
- What do you notice about the shot size at the beginning compared to the rest of the clip?
- How does the modality of the setting differ from the modality of the characters? Why may the creators have made this choice?

Chimère by ESMA Movies (https://youtu.be/UalcSjOuV-8 6 mins 53 secs) is the story of good versus evil, of motherly love winning out over self-centred destruction.

The fantastical creatures of Chimère, part eagle - part woman, and a Medusa-like reptile are almost surreal. This is shown through heightened modality, with the softly textured, vibrantly coloured feathers of the Chimère contrasting with the cool grey sleekness of the reptile character.

Angle is also used to characterise the protagonist and antagonist. The Chimère is shown at the viewers' eye level putting the viewer on equal standing with this character and encouraging empathy, while the reptile is 'shot from below' positioning the viewer as less powerful than that character and heightening the viewer wariness of the creature.

Focused questions can scaffold students towards this type of interpretation, for example:

- How are the different participants characterised through the use of colour and texture?
- How does the angle that each character is shown from further accentuate the effect for the viewer?

Viewing and talking about digital texts can let teachers and students meet many of the NSW K-10 English Syllabus outcomes in an engaging and motivating way. The use of visual metalanguage can serve as a resource for teachers and students in sharing their interpretation of digital texts. Careful use of teacher questioning can develop student understanding of the metalanguage, scaffolding students towards purposeful discussion and reflection about how digital texts construct meaning and have an effect on an audience.

References and further reading

Derewianka, B. & Humphrey, S. (2014). *Teaching knowledge about language in schools.* Newtown: Primary English Teaching Association Australia.

English K-10 Syllabus © NSW Education Standards Authority (NESA) for and on behalf of the Crown in the State of New South Wales, 2012.

Freebody, P. (1992). 'A sociocultural approach: resourcing four roles as a literacy learner'. in *Prevention of Reading Failure*, Watson, A. & Badenhop, A. (eds) Linfield: Scholastic Australia.

Kress, G. & van Leeuwen, T. (1996). *Reading Images: the grammar of visual design.* London: Routledge.

How to cite this article – Asha, J (2018). Teaching visual grammar in the context of digital texts. *Scan, 37*(7).

Book bento boxes: Creative reading response

Dr Jennie Bales, a lecturer in the School of Information Studies at Charles Sturt University, and **Louise Saint-John**, an English teacher and teacher librarian, collaborate in this article that features an engaging strategy for creative responses to texts

Book bento boxes (BBBs) are a recent reader response strategy that offers students an alternative visual and creative approach to reflecting on a text. Through the lens of reader response theory this article demonstrates how BBBs provide an outlet for critical and creative thinking, visual arts and the application of technology for responding to texts and presenting ideas. While this strategy explicitly supports the English curriculum, it can also be harnessed to express understanding in other subject areas. Practical applications will be explored through examples created for Year 10 English and Stage 2 history tasks.

When the BBB strategy was introduced to a cohort of post graduate students enrolled in Literature Across the Curriculum (a Master of Education subject for Teacher Librarianship) at Charles Sturt University, it was received with enthusiasm. Students quickly saw the potential of this relatively new reader response strategy that offers students an alternative visual and creative approach to reflect on a text. Initially adopted by adult readers, the strategy has found leverage in secondary English classrooms. However, as this article will demonstrate, BBBs provide a creative and enjoyable opportunity for students of all ages to make connections between their reading and related content. The underlying principles can be adapted, making this a flexible and engaging option for a range of ages and capabilities.

Conceptual origins

The Japanese are renowned for simple lines, artistic design and expressive layout in many fields. This is demonstrated in the art of ikebana and in food presentation through the bento box which turns a simple single take-away meal into a visual delight. The notion of a book bento box is based on the premise of taking a single idea (bento), in this case a book, and presenting its themes in 'bite sized' portions within a confined unit (a box) in a purposeful and artistic way. Kelsey Kloss (2016) credits the Instagrammer @BookBento with this idea of compiling and presenting small objects to capture the themes and inspiration within a book, where 'every object is meticulously arranged and organized in the snapshots'.

As can be seen in these Instagram images , this is a highly visual, innovative and interactive technique that invites book lovers to design, create, hyperlink and share responses to books in an artfully arranged interactive collage. This article includes digital samples from Year 10

English students responding to a short story of their choice. A physical, rather than digital, rendering of the BBB format is another possibility that will be explored later in the article.

Responding to literature

Researchers and professionals in the field of children's literature (Yopp and Yopp, 2014; Miller, 2010; Miller and Kelly, 2013 and Krashen, 2011, 2018) identify some key approaches to establish a strong reading culture within the library and across the school. Book bento boxes are ideal for helping students to identify and connect with themes, topics and compelling issues as they read. Book bento boxes can also cater for individual and small group literary experiences and offer an enjoyable and engaging extension of the reading experience that differs from the more traditional book report. The final product can be an individual or shared compilation and ideally there will be opportunities for students to discuss and explore their responses to the text during the design, development and presentation processes. Reader response theory, as explained in the following video (1:57), is steeped in the notion of shared experiences and these can readily be embedded into the reading and response cycle.

YouTube video: 'Reader Response Theory' https://youtu.be/DsZpMZkiZCc

An important aspect of the BBB is the sharing of a creator's thoughts that reflect their personal interpretations of a text. Typically, as the strategy has been inspired by technology, a BBB will often be in a digital format, harnessing interactive components to provide annotations during the publishing process. It is the combination of the box components supported by annotations that result in a product that explicitly addresses English K-10 Syllabus. An aspect of the syllabus requires students to reflect on their learning and empowers them to become confident communicators, as well as critical and imaginative thinkers. These elements are demonstrated in the following paired images of a Year 10 student's response to the short story 'Raymond's Run' by Toni Cade Bambara. The image presents a collection of articles titled 'Visual Representation of Raymond's Run' and the image on the right illustrates one of the hyperlinked annotations.

Image:Visual representation of the novel 'Raymond's Run' on the left. On the right is an example of a hyperlinked annotation. Both created by Emma, using Thinglink.

Multimodal expression - the technology connection

The book bento box provides a medium to enhance visual literacy through the creation of multimodal text in a digital or physical format (Ljungdahl and March, 2014, p. 261). It can be used as a response to or analysis of a focus text, thereby developing the imaginative and critical thinking of both the reader and responder. In most examples, Thinglink has been the tool of choice, but other programs such as Glogster , Piktochart , Padlet , Wakelet support digital storytelling and are easy to use and incorporate into the school's learning management system or online platform. The apps are free to use in an educational setting (though some have limited functionality without a paid subscription). Book bento boxes created on an app and uploaded to Instagram limits the content to still images. However, the tools listed above allow for the inclusion of interactive components such as video, hyperlinks, maps, music and created documents such as Google Docs . The General Capabilities within the Australian Curriculum that address a number of 21st century skills including communication, interaction, collaboration, ICT competence and the development of visual literacy can be enhanced through the interpretation and creation of visual images, and BBBs support the application of many of these skills.
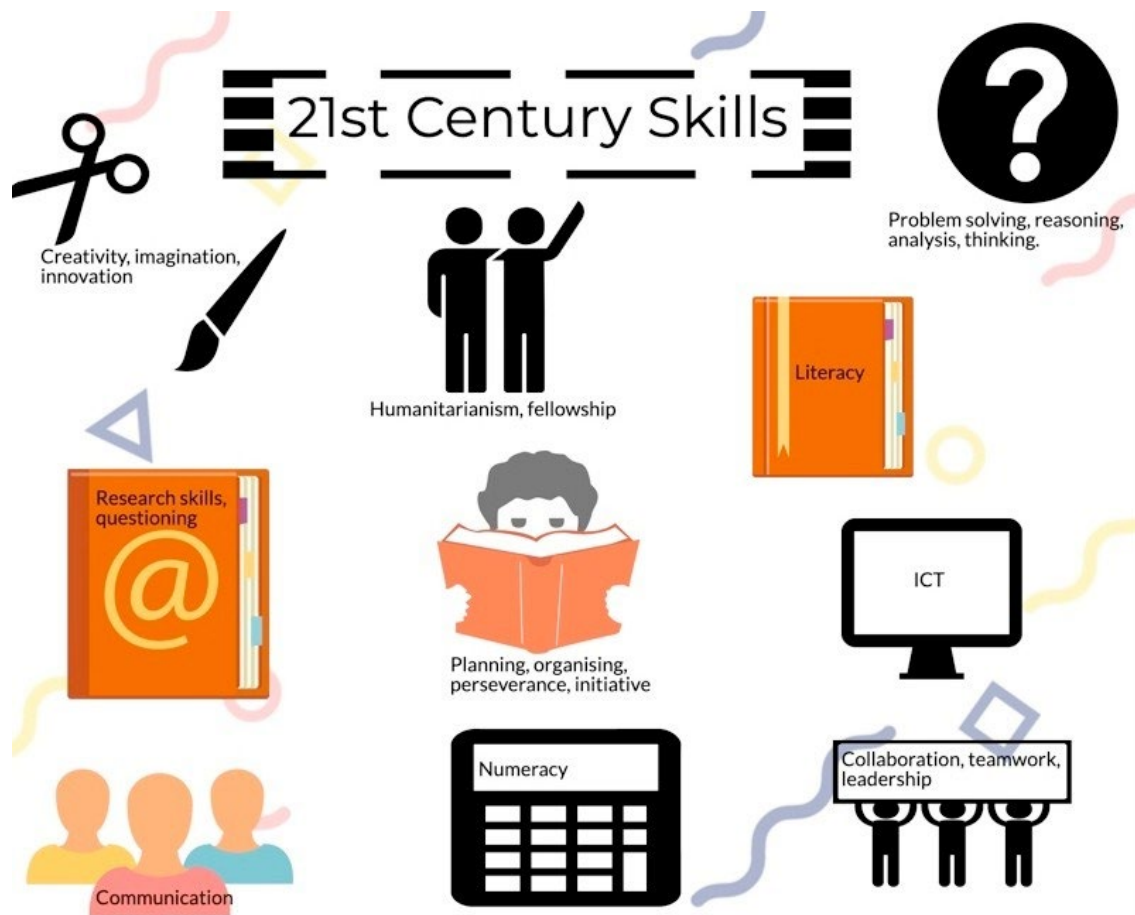
Image:'21st century skills' Louise Saint-John (2020)

Young people today require the ability to read and create multimodal texts. Burke and Hemmett (2009, p 1) highlight the importance of incorporating opportunities for multimodal expression as part of assessment requirements. Such projects are often collaborative and incorporate a suite of 21st century skills in their creation. After reading or sharing a text, students' use of the BBB model encourages them to plan and organise the content to be displayed. They are required to consider the purpose and reason for each component, along with the layout, research, compilation and placement of written annotations to communicate their ideas.

Opportunities for creative and critical thinking

This creative approach encourages students to make the link between stories and related content whereby both imaginative and innovative thinking are activated. Purposeful thinking and intentional creation extend students' visual literacy, allowing them to devise or develop concepts in a meaningful way. Book bento boxes enable students to display understanding and knowledge creatively and artistically whilst challenging a viewer to interpret, analyse or infer the concepts being promoted. This aligns with Ross Johnston's key defining qualities of visual

literacy being 'the ability to analyse the power of the image and the how of its meaning in its particular context' (Winch, et al. 2010. p. 620).

As a means of expression, the BBB provides a flexible option for students and allows for unlimited imagination and creativity. Age and understanding will be reflected in the complexity of the work, including age appropriate online links. Book bento boxes can also encourage students for whom English is not their first language to display understanding, knowledge and analytical skills moving beyond the constraints of solely written English. Book bento boxes can be presented simply or can be used to encourage higher order thinking. Students can make new links, formulate concepts and creatively apply new ideas to specific texts.

Image:'All Summer in a Day' by Ray Bradbury, Thinglink

As seen in the above example , opening an image within Thinglink allows a reader to navigate the various buttons embedded in components and to explore the creator's reasoning, interpretations and the connections made in relation to the focus text.

Supporting English and the visual arts

English and visual arts are subjects that naturally lend themselves to the BBB. Students can use their visual literacy skills to present their ideas about how their topic is relevant to the real world and make connections with other texts and ideas. For example on the Instagram page @BookBento the BBB is used to great effect for Jane Austen's 'Pride and Prejudice' . Chosen objects surrounding the book cover are evocative of time and place in the novel.

Students could also make use this format to demonstrate themes and connections they have made and indicate how a text participates in a conversation within their own society and the framework of broader world view. A case in point is the consideration of gender stereotypes. For instance, the role of women is a quintessential theme that is as relevant today as it was in earlier times. Students could demonstrate their research and understanding by making comparisons between women in classic literature and women in the modern literary canon.

Digital apps work equally well in the purview of visual art. Creation of an artwork such as that on L Frank Baum's 'The Wonderful World of Oz ' displays skillful design in which each visual item is conceived and rendered with care. This medium also allows for more expressive illustration whereby painting, drawing or sculpture can be interwoven and linked to digital annotations. A work based on Doris Lessing's book 'Flight' demonstrates how both English and visual art objectives can be incorporated into the creation of a piece of work created in Thinglink .

Image:Visual representation of 'Flight' by Doris Lessing

Wider possibilities

The book bento box strategy can readily be applied to learning areas other than English. For instance there are picture books that support many curriculum areas and are an ideal medium to encourage student reflection and to spur further investigation. A BBB example created by Jeannie Bales (2018) displays a book bento box expressing her thoughts on 'Mallee Boys ' by Charlie Archbold (2017). In this example, Bales explores the use of different buttons to help create a sense of journey as well as sequencing the annotations on the narrative.

Although the use of technology can enhance the communication options and expand the sharing of ideas, the book bento box model is easily adaptable to a material format. A physical collection of items photographed and then printed, along with hand drawn illustrations and oral explanations provide an alternative approach. The pinup board below shows examples of physical BBBs from Stage 2 students undertaking a humanities and social sciences unit supported by story books.
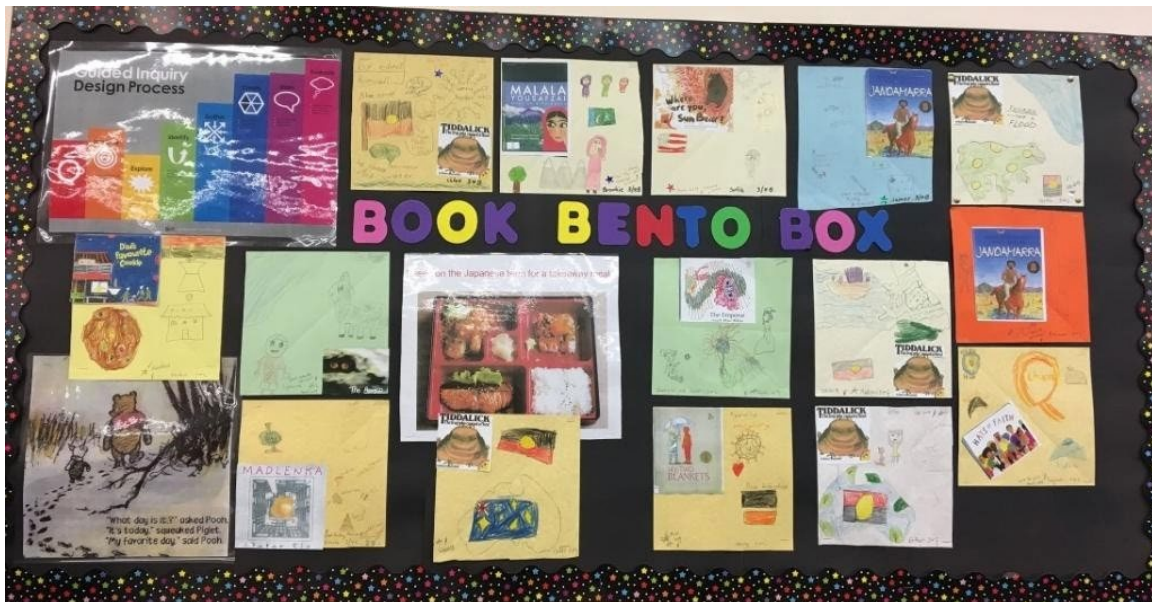
Image:A school library display of mixed media book bento boxes created by Stage 2 students in response to a text of their choice

The following examples present products from the Stage 2 library research unit. Using paper as the 'box' students have identified items and events inspired by a book and have drawn these on the paper.
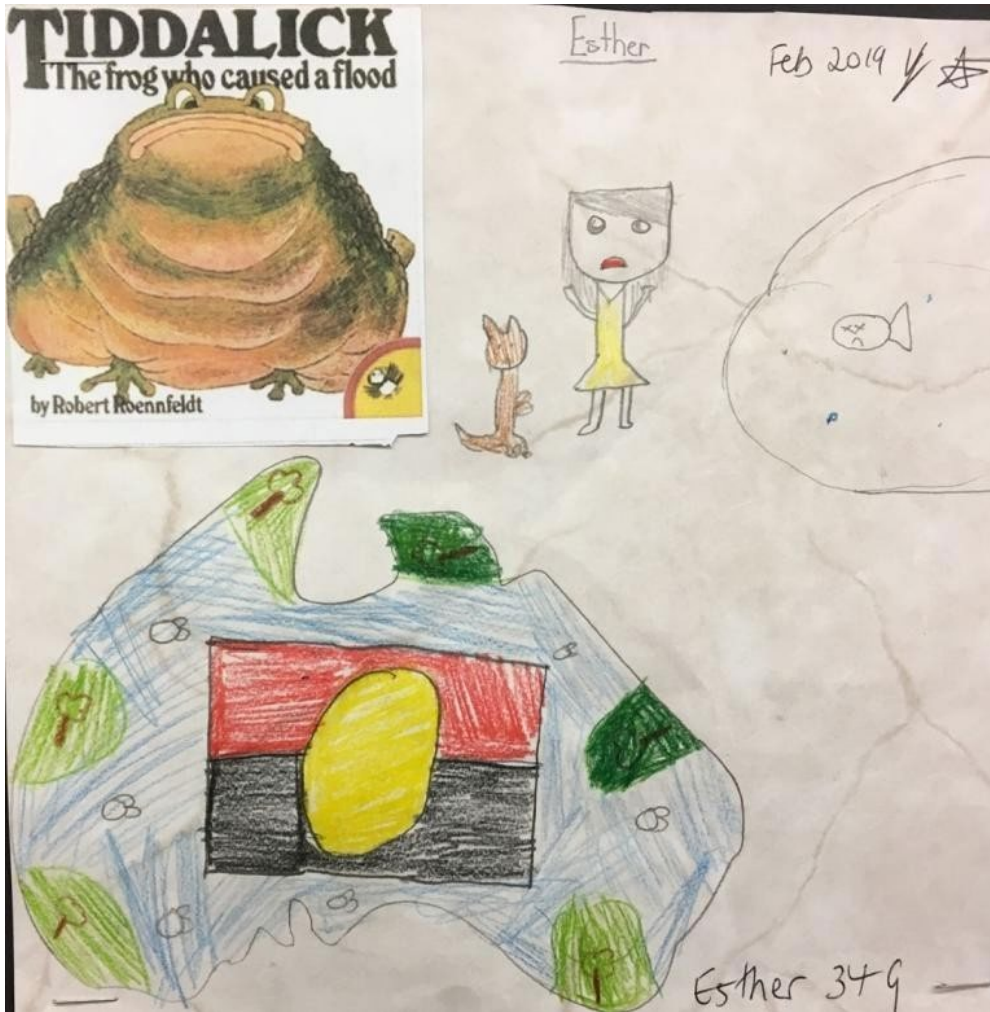
Image:Book bento box of 'Tiddalick: The frog who caused a flood' by Robert Roennfeldt

Image:Book bento box illustrations on specific cultural themes

The examples provided here indicate a range of strategies that students can employ by taking the underlying principles of the book bento box and adapting them to suit individual learning styles, interpretations and

preferences. Book bento boxes encourage creativity, and as such, will inspire students to adapt the format to suit their own purposes.

A Year 10 teacher and supporting teacher librarian indicated that Book bento boxes were well received by students and a popular choice. With clear learning expectations and guidelines, Thinglink provided the necessary tools for students to address all aspects of the task including image selection, placement, and the thoughtful annotations embedded within. The teacher librarian, Helen Styan, was excited by the possibilities of this reflection strategy and intends to include BBBs in future units of work. In addition, a number of tertiary students working towards their teacher librarianship qualifications expressed interest in the idea, seeing great potential for providing an original and engaging learning opportunity for students to reflect on reading experiences.

References and further reading

Australian Curriculum, Assessment and Reporting Authority. (2019). Critical and creative thinking. The Australian curriculum .

Australian Curriculum, Assessment and Reporting Authority. (2019). General capabilities .

Bales, J. Book bento boxes . *JB on not Just Books*. (2018, September 24). [Blog]

Burke, A. & Hammett, R. (Eds.) (2009). *Assessing new literacies: Perspectives from the classroom*. Peter Lang, New York.

Highfill, L. Replying to @MrsReberger . (2018, April 10). *Here is my #BookBento HyperDoc* [Tweet].

Kloss, K. Book bento is every bookworm's dream come true . (2016, May 2). [Elle Decor–blog].

Krashen, S.D. (2011). Free voluntary reading. Libraries Unlimited, USA.

Ljungdahl, L. & March, P. (2014). The role of writing. In G. Winch, R. Ross Johnston, P. March, L. Ljungdahl & M. Holliday (Eds.), *Literacy: Reading, writing and children's literature* (5th ed., pp 260-268). Oxford University Press.

Miller, D. (2009). *The book whisperer: Awakening the inner reader in every child*. Jossey-Bass, USA.

Miller, D. & Kelley, S. (2013). *Reading in the wild: The book whisperer's keys to cultivating lifelong reading habits*. Jossey-Bass, USA.

MsLamm1 (2016, September 2). *Reader response theory* [Video]. YouTube.

NSW Education Standards Authority (NESA) for and on behalf of the Crown in right of the State of New South Wales. (2012). *English K-10 syllabus* .

NSW Education Standards Authority (NESA) for and on behalf of the Crown in right of the State of New South Wales. *Learning across the curriculum* .

NSW Education Standards Authority (NESA) for and on behalf of the Crown in right of the State of New South Wales. (2003). *Visual Arts 7–10 syllabus* .

Ross Johnston, R. (2014). Visual literacy: Reading the world of signs. In G. Winch, R. Ross Johnston, P. March, L. Ljungdahl & M. Holliday (Eds.) *Literacy: Reading, writing and children's literature* (5th ed, pp 618-636). Oxford University Press, Victoria.

Valenza, J. Building beautiful book bentos . (2019, May 4). [Never ending search–blog].

Winch, G., Johnston, R., March, P., Ljungdahl, L., & Holliday, M. (2010). *Literacy: Reading, writing and children's literature* (4th ed.) Oxford University Press, Victoria.

Yopp, R.H. & Yopp, H.K. (2014). *Literature-based activities* (6th ed.) Pearson Higher Education, USA.

Peering through the fantasy portal: The fantasy genre for understanding and composing texts

Joanne Rossbridge, an independent English, EALD and Literacy Consultant, explores how the fantasy genre develops skills, knowledge and understanding about texts and language.

The following discussion and strategies concentrate on the fantasy genre as a necessary ingredient when engaging in the English subject area through both print based and multimodal literature. The teaching and learning examples have been used in several teaching contexts and reflect the content of the NSW English K-10 Syllabus with a particular focus on Stage 3. The fantasy genre will be explored for developing not only skills, knowledge and understanding about texts and language, but also thinking in creative and reflective ways.

Fantasy is a necessary ingredient in living. Dr. Seuss.

Overview

In recent times, since the introduction of the NSW English K-10 Syllabus, many teachers have felt constrained by the terms imaginative, informative and persuasive types of texts when looking at literacy and, in particular, when teaching writing or composing. As the syllabus states, these are only general classifications of texts. Further discussion around such types of texts should be carried out with reference to the definition in the syllabus Glossary where the potential purposes of each type of text are unpacked in greater detail.

The term 'genre' is used in the English K-10 syllabus. Genre is defined as, 'The categories into which texts are grouped. The term has a complex history within literary and linguistic theory and is often used to distinguish texts on the basis of, for example, their subject matter (detective fiction, romance, science fiction, fantasy fiction) and form and structure (poetry, novels, short stories)' (NESA, 2012). The syllabus, developed from the Australian Curriculum, draws upon the functional linguistic and genre theory approach to learning about texts and language in context whilst also valuing the role of literature in the English subject area (Derewianka, 2012 & 2015).

By considering multiple theoretical influences on the design of the NSW English Syllabus, teachers can move deeper within the three types of texts to delve into a range of texts for a range of purposes from authentic contexts. This is a key focus across syllabus outcomes and requires the use of authentic literature from the past and present. The range of purposes

and text forms under the imaginative banner, opens up a world of literary genres and imaginative worlds for both responding and composing.

When focusing on any literary genre (for example, fantasy, realism, mystery, humour) many typical narrative conventions can be identified. However, certain features are particular to certain genres. To broaden student knowledge and engagement with literature, representations of the fantasy world have been investigated and used as models for students composing their own texts. The following strategies have been planned and implemented within the teaching and learning cycle (Derewianka & Jones, 2016; Rossbridge & Rushton, 2015). This involves field building through speaking and listening and reading and responding, modelling or text deconstruction, joint construction and independent construction. During a focus on writing, students were involved in reading and viewing a range of fantasy texts including a shared novel with the whole class; students' independently reading fantasy novels of choice, engagement with a range of picture books and viewing of short films. In addition, as models for writing, students developed conversations around the choices made in extracts from a range of texts.

Context and features of fantasy texts

The fantasy genre has evolved over more than three centuries (Levy & Mendlesohn, 2016; Saxby & Winch, 1991) and has often been a response to the social and cultural concerns related to the role and importance of imagination at any given time in history. One could even say the current English Syllabus is a similar response with the inclusion of Objective C and the 'think in ways that are imaginative, creative, interpretive and critical' outcome. There are many perspectives on the value, interpretation and features of fantasy in both children's and adult literature (Levy & Mendlesohn, 2016).

In order for students to build field knowledge and tap into existing knowledge around the concept of the fantasy genre, a range of quotes related to fantasy can be provided from a website such as Goodreads. Students can use quotes, like the example below, to begin to discuss the purpose, possible audiences and features of fantasy narratives.

Fantasy is silver and scarlet, indigo and azure, obsidian veined with gold and lapis lazuli. Reality is plywood and plastic, done up in mud brown and olive drab. Fantasy tastes of habaneros and honey, cinnamon and cloves, rare red meat and wines as sweet as summer. Reality is beans and tofu, and ashes at the end. George R.R. Martin.

Students can also be involved in sorting a range of picture books, novels, films, poetry, cartoons, graphic novels and so on based on narrative genres such as fantasy, realism, mystery, humour. They can also come up with their own way to classify a range of texts. Fantasy texts can then be distinguished and be placed on a timeline based on when they were composed. This may even include the 'disneytization' (Bryman, 2004) of some classic texts such as 'Alice's Adventures in Wonderland' first published in 1865 and 'Peter Pan'published in 1904.Such classics have been themed into fantasy worlds of Disneyland as well as various aspects of globalised culture. Students may be surprised to realise how old some texts may be, leading to conversations about longevity and influences over time.

McDonald (2017) provides a comprehensive description of the general types of fantasy and typical fantasy conventions in children's literature. Types of fantasy tend to reflect the nature of the setting or worlds created. These choices impact upon the connection between worlds, choice and features of characters, role of magic and the journey to be undertaken. Typical types of fantasy can include:

- The fantasy set in the real world with magic.
- The fantasy beginning and ending in a fantasy world.
- The fantasy starting in the real world and moving into a fantasy world.

By first considering the broad fantasy world, the focus in this case is placed on appreciating and engaging with fantasy texts that move from the primary to the secondary world.

Beginning to peer through the portal

In the examples shared, texts were chosen particularly due to their shift from the real or primary world construction of character and movement across settings. A significant aspect of such texts is the movement of the main character/s from the primary to the secondary world through some type of portal. For example Alice, from 'Alice in Wonderland' (Carroll, 2015), falls down a rabbit hole to Wonderland and Lucy, from 'The Lion, the Witch and the Wardrobe' (Lewis, 2001), enters Narnia through the back of a wardrobe.

Students can investigate a range of texts through both shared and independent reading and viewing, to identify movement between worlds, by identifying portals through which characters travel. Viewing short films is particularly useful for identifying the movement between worlds through a portal of some form.

__Adventures are the pits__ by Esquirebob (https://youtu.be/5zr9aiWQ8Tw 2:13) demonstrates a soft play slide portal.

__Something fishy__ by Jiyoon Jeong (https://youtu.be/iiVkDMLh81w 2:20) demonstrates how a washing machine is the portal.

__Crayon Dragon__ by Toniko Pantoja CalArts (https://youtu.be/gVB1rsRLK-o 3:13) uses a painting as the portal.

__Dream Giver__ by Tyler Carter (https://youtu.be/nYwMuM9q FIg 5:54) turns a night of dreams into a literal nightmare when an orphan's book of Ancient Aztec Mythology comes alive.

By recording the portal and other features of the fantasy narrative, students become familiar with the genre and tools for creating their own fantasy texts. They also become involved in conversations about both character and setting choices made by authors, particularly reflecting the outcomes and content descriptors for Outcome EN3-5B and Outcome EN3-7C .

Based on engaging with multiple texts, possibilities for portals and other features can be recorded for future use when constructing own texts. Recording features in texts read and then for planning own writing can be guided by identifying the following features:

- name and description of the real/primary world,
- name and description of the real characters,
- portal to fantasy world,
- name and description of the fantasy/secondary world,
- name and description of the fantasy characters, and
- complications/quests in the fantasy world.

Students can then beginning planning their own texts using storyboards (see examples below) in order to structure their narratives while incorporating fantasy conventions.

Student storyboards

Moving through the portal

When reading a range of texts with a close focus on the shift through the portal, it becomes apparent that authors often foreshadow the shift from the primary to secondary world or highlight the actual setting shift through use of words to 'trigger' to the reader that something different is about to occur. The picture book, 'Isabella's Bed' (Lester, 2007), is an effective text for showing a subtle move through a portal through both words and images. The main characters, Anna and Luis travel on a magical journey on their grandmother's bed entering a fantasy world through a picture of the sea on the bedroom wall.

The transition of the characters through the portal is conveyed to the reader with *adverbials* and **connectives** placed at the beginning of clauses to hint at something new to come.

> **As** <u>I</u> drifted into sleep …
> *Suddenly* <u>I</u> awoke …
> **Then** *slowly over a desert plain* <u>we</u> *rolled, …*
> *Silently* <u>we</u> *drifted …*
> (Lester,2007).

Often these 'triggers' are at the beginning of a clause and may consist of one or more groups before the main subject and verb of the clause. They can flag circumstances of the experience through adverbial groups or are connectives often highlighting shifts in time. The group or groups before the main verb in a clause are referred to as 'theme of clause' (NESA, 2012b; Derewianka, 2011; Humphrey, Droga & Feez, 2012).

These grammatical themes function to alert or flag to the reader that something different, unusual or extraordinary is about to occur. Significantly, these choices help to not only guide the reader through the character's journey but also to creative cohesive ties and to structure the unfolding narrative. The Reading and Viewing <u>Outcome EN3-3A</u> contains the content descriptor, 'understand that the starting point of a sentence gives prominence to the message in the text and allows for prediction of how the text will unfold (ACELA1505)', which reflects the focus on choices relating to theme of clause. By identify such features in variety of texts, students are able to develop a list of possibilities to adapt and apply to their own writing.

The implied entry

The following is an example of part of a joint construction written by a teacher and students. 'The large book appeared to sink back into the wall as the children approached the portal. The book appeared to be yellowing on the open pages and the writing was a script that was quite foreign to our heroes' eyes. They could glimpse strange bubbles exploding out of an opening in the book'.

As this was an early joint construction with much input from students, it can be noted that students were effectively engaging with descriptive language to establish the setting and portal. However little was left to the imagination for the reader in regards to implying that the character was approaching a portal. Additionally, characters are stated as heroes before even moving into the fantasy world and experiencing the upcoming adventures and quests.

This was also evident in students' initial independent writing (Draft 1), particularly with the explicit view of the actual secondary world in which characters were entering, for example, 'The World of evil'. This provoked a return to looking at model texts where focus was placed on how authors subtly guide the reader through the portal without using the word portal or stating the name of the world as this would be unknown by the character upon first entry. Outcome EN3-2A contains the content descriptor 'create literary texts that experiment with structures, ideas and stylistic features of selected authors' (ACELT1798) showing the need to use model texts to focus on features employed by authors of the fantasy genre.

Suddenly she realized that through the hole in the tree she could see... a dark city. In a blink of an eye she sliped into the tree and saw... The World of evil.
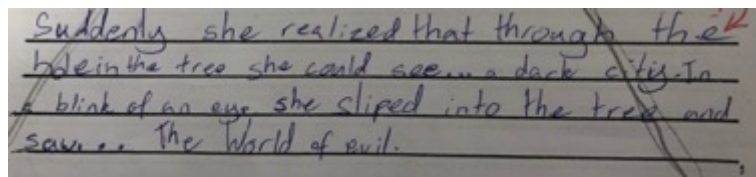
Draft 1

When looking at Harry Potter's (Rowling, 2018) transfer to Platform 9 ¾ there is a great focus on escalating action as he speeds up yet closes his eyes while moving through the barrier to suddenly see the Hogwart's Express steam engine. Similarly, Blyton's 'The Adventures of the Wishing Chair' (2012) is action based as the chair takes Mollie and Peter on a range of adventures to fantasy lands. In 'The Lion, the Witch and the Wardrobe' (Lewis, 2001), Lucy's experiences are of perceiving and feeling as she shifts between worlds. This is similar to the 'Jumanji' picture book (Van Allsburg, 2017), where the characters perceive or see a change in surroundings as they are transported by the board game. In 'Alice's Adventures in Wonderland' (Carroll, 2015), there is a combination or action and perceiving as Alice falls down the rabbit hole yet notices features on the walls of the well. Clearly, authors draw on both action but also sensory processes as the characters shift between worlds. In early writing students were focusing particularly on description of the secondary world rather than processes undertaken by the character. They also tended to take the reader on a very quick movement into the fantasy world resulting in the reader needing to make few inferences about the transition. By slowly taking the reader on the journey there is a greater need for inference on the part of the reader.

As a way of placing themselves in the shoes of the character and considering both actions and sensory experiences, students were involved in drama strategies such as walk in role and tap in (Dutton, D'Warte, Rossbridge & Rushton, 2018; Ewing, Simons, Herzberg & Campbell, 2016). This consisted of students being in the role of characters from texts or as their own character for writing. Students would act out the entry through a portal into the fantasy world and be tapped on the shoulder by peers

who asked questions regarding the action and sensory experiences. Questions include:

What are you doing now?
What can you feel beneath your feet?
What do you see around you and in the distance?
What can you hear or smell?

From this, a range of processes or verbs (Derewianka, 2011) could be recorded for use in writing. For example,

Action verbs/processes - trip, cascade, tumble, drift
Sensing verbs/processes:
Thinking - wondered, thought, imagined, realised
Feeling and wanting - feared, wished, desired
Perceiving - see, notice, glance, scan, smell, hear

In this way students had banks of words and also synonyms to draw upon in their own writing. In one conversation students made the connection to the bread crumbs left by Hansel and Gretel in that the choice of a range of processes in the transition is like the bread crumbs slowly scattered which act to take the character and reader through the portal often in a subtle manner rather than a sudden leap into an obviously new world (Draft 2).
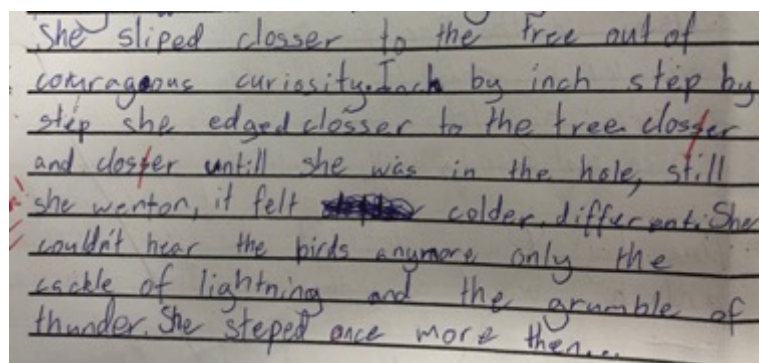
Draft 2

Character encounters

Once inside the fantasy world, 'real' characters begin to encounter fantastical characters. Initial physical description of the fantastical characters is critical in giving insight into not only characters but also the secondary setting. This serves to create believability about all characters in the fantasy world and upcoming quests. In some cases the character development may draw upon other known mythological creatures, possession of magic powers and objects or clothing which are unusual in the primary world (McDonald, 2017).

In 'The BFG' (1982, p24) Roald Dahl clearly describes the appearance of the BFG through extended noun groups (Derewianka, 2011; Humphrey et al., 2012). Students were asked to draw a picture of the BFG based on the description with detail from the noun groups removed. In the first drawing below, a student drew the image, including the shirt, waistcoat, green shorts and sandals. When the original text, containing extended noun groups, was then read aloud, detail appeared in the second drawing including 'a sort of collarless shirt and a dirty old leather waistcoat that didn't seem to have any buttons, the shorts that were *far too short in the legs and* a pair of ridiculous sandals that for some reason had holes cut along each side, with a large hole at the end where his toes stuck out' (Dahl, 1982). This task highlighted for students the need to develop description through the extended noun group in order to show, in this case, the unusual yet subtle differences in clothing of the character as Sophie began to engage in the fantasy world.

Student pictures of the BFG

Knowledge of the noun group is also useful in planning to develop characters. The potential of the noun group can be seen in the table below as detail can be added both before and after the main noun.

Which one? (pointer)	How many? (quantifying adjective)	What's it like? (describing adjective)	What type? (classifying adjective)	Who or what? (noun)	What else?	
					(adjectival phrase)	(adjectival clause)
a		glowing	mystical	creature	with a golden mane	
	four	scaly wagging		tails		that caught the speckled sunlight
her		long sharp		nails	with serrated edges	that scratched the paint off the walls

Students can use this table to not only unpack the language choices in the texts they are reading but also to plan for their own written descriptions. They can also trial the effectiveness of descriptions by repeating the above listen and draw activity with a peer and receive feedback on the power of the description in building a picture for the reader. The Grammar, Punctuation and Vocabulary Outcome EN3-6B highlights the importance of looking at the extended noun group with the content descriptor, 'understand how noun groups/phrases and adjective groups/phrases can be expanded in a variety of ways to provide a fuller description of the person, place, thing or idea (ACELA1508).'

Unlike the fantasy characters, the real world character/s are not as dependent on being described physically. Generally the reader already has some experience of real world knowledge to apply to the image of a character once some traits are revealed such as gender, age and the time period of the setting. Of greater importance, for the believability of the fantasy journey, is the initial description of the character, usually the main protagonist, in terms of sensory details. Again this can be a planning tool for students as they decide on their own characters and what they think, feel, want and perceive in the real world and how these traits may be applied or indeed impacted upon as they move into the fantasy realm. The main character is the readers' connection between the real and fantasy world and it may be that the character's thoughts and feelings are challenged as they move through the journey.

One particular group of students came to the conclusion that the main protagonist has to be curious and willing to take risks in order to either move through the portal or commit to moving through the fantasy world upon entry. They made the connection to the well-known line 'Curiouser

and curiouser!' (Lewis, 2001) from 'Alice's Adventures in Wonderland' as Alice showed her inquisitive yet surprised reaction during her quest through Wonderland.

Conclusion

The strategies described are only a few aspects implemented when engaging with the fantasy genre. There are also many more fantasy texts available for use, both print based and multimodal. Choice of texts can be based on the needs and interests of particular groups of students. Regardless of texts chosen as models, students need access to a range of such texts for independent as well as shared reading and deconstruction. The ideal ingredients for engaging with both fantasy and life consists of close connections between reading and writing layered with creative and analytical conversations around language choices and their relationship to context and purpose.

Fantasy literature

Barrie, J.M. (2008). *Peter Pan*. UK: Puffin.

Blyton, E. (2012). *The adventures of the wishing-chair*. London: Dean.

Carroll, L. (2015). *Alice's adventures in wonderland*. Australia: MacMillan.

Dahl, R. (1982). *The BFG*. London: Penguin.

Lester, A. (2007). *Isabella's bed*. Australia: Hachette.

Lewis, C.S. (2001). *The lion, the witch and the wardrobe*. UK: Harper Collins.

Rowling, J.K. (2018). *Harry Potter and the philosopher's stone*. UK: Black and White Publishing.

Van Allsburg, C. (2017). *Jumanji*. UK: Anderson Press.

References

Bryman, A. (2004). *The Disneyization of society*. UK: Sage.

Derewianka, B. (2011). *A new grammar companion for teachers*. Sydney: PETAA.

Derewianka, B. (2012). Knowledge about language in the Australian Curriculum: English. *Australian journal of language and literacy, 35*(1), 127–146. http://ro.uow.edu.au/cgi/viewcontent.cgi?article=1128&context=sspapers

Derewianka, B. (2015). The contribution of genre theory to literacy education in Australia. In J. Turbill, G. Barton & C. Brock (Eds.), *Teaching writing in today's classrooms: Looking back to looking forward* (pp. 69-86). Norwood, Australia: Australian Literary Educators' Association.

Derewianka, B. & Jones, P. (2016). *Teaching language in context (2nd ed.).* Melbourne: Oxford University Press.

Dutton, J., D'Warte, J., Rossbridge, J. & Rushton, K. (2018). *Tell me your story: Confirming identity and engaging writers in the middle years.* PETAA, Sydney.

English K-12 Syllabus . © NSW Education Standards Authority (NESA) for and on behalf of the Crown in right of the State of New South Wales, 2012.

Ewing, R., Simons, J., Herzberg, M. & Campbell, V. (2016). *Beyond the script 3.* Sydney: PETAA.

Goodreads Inc. (2019). Goodreads: Fantasy fiction quotes .

Humphrey, S., Droga, L. & Feez, S. (2012). *Grammar and meaning* (2nd ed.). Sydney: PETAA.

Levy, M. & Mendlesohn, F. (2016). *Children's fantasy literature: An introduction.* Cambridge University Press.

McDonald, L. (2017). *A literature companion for teachers.* Sydney: PETAA.

NSW Education Standards Authority (NESA). (2012). English K-10 Syllabus Glossary .

Rossbridge, J. & Rushton, K. (2015). *Put it in writing.* Sydney: PETAA.

Saxby, M. & Winch, G. [Eds.]. (1991). *Give them wings: the experience of children's literature.* South Melbourne: Macmillan.

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Examining persuasive techniques using visual and digital texts

Jennifer Asha, literacy educator, demonstrates how teachers can use questioning to explore the persuasive techniques used in 4 exemplary digital texts.

In a previous Scan article, I wrote about using imaginative digital texts as resources for teaching visual metalanguage to facilitate deep understanding of digital narratives. That article made suggestions for classroom talk, particularly teacher questioning to support student literacy learning. In this article, I will explore a different type of text - those created for persuasive purposes. This piece will also examine the ways that teachers can use questioning to support learning about persuasive techniques used in visual and digital texts.

The Melbourne Declaration on Educational Goals for Young Australians states the need for schools to prepare students to be 'active and informed citizens' (MCEETYA, 2008, pp 6-7). Research similarly demonstrates the necessity of preparing students to think in critical ways (Zammit and Downes, 2002; Freebody, 2007) to help them become 'informed sceptics' (Durrant and Green, 2000, pp 97-98), rather than 'passive recipients' (Kervin and Mantei, 2009, p 3). The Australian Curriculum and NSW English syllabuses also mandate critical literacy practices.

The Australian Curriculum: English and NSW English K-10 Syllabus show a progression of literacy practices that students should be taught from Stage 1 through to Stage 3 in relation to persuasive texts. The outcomes across the stages show an increasing sophistication of comprehension and interpretation of texts - from describing 'differences between imaginative, informative and persuasive texts' (ACELY1658) to identifying 'the audience' (ACELY1668) 'and purpose of imaginative, informative and persuasive texts' (ACELY1678). Students are expected to 'identify' (ACELY1690), 'explain' (ACELY1701) and then 'analyse' (ACELY1711) characteristic features used in persuasive texts to meet the text purpose as they progress through the stages. The texts teachers use to instil these literacy practices need to be rich enough to allow for the application of these sophisticated critical literacy skills. The internet gives teachers access to high quality texts that can be worthwhile resources for lessons designed to explore the structures, features, purpose and audience of texts created for persuasive purposes. In the following paragraphs I will share some exemplary digital texts that employ a range of techniques to meet their purpose and persuade their audience.

'All I need' by MTV and Radiohead

YouTube video: 'All I need' by MTV and Radiohead
https://youtu.be/DV1hQSt2hSE

The purpose of this short video by MTV and Radiohead (3 mins 47 secs) is to raise awareness of child labour in the footwear industry. The clip design employs an unusual layout with a split screen running two different clips side-by-side simultaneously. The intended audience can see elements of their own daily life represented on the left or 'given' (Kress and van Leeuwen, 1996) as it shows a day in the life of a child in a developed country. Through a variety of close-ups and mid-shots, we see the familiar elements of a school day: eating cereal at the kitchen table while mum packs a lunchbox, walking to school along a safe and clean suburban street, participating enthusiastically in a classroom discussion with a positive and supportive teacher, and playing games in the playground with school friends. In stark contrast, the clip on the right shows a day in the life of a child working in a developing country's shoe factory. This child lacks a loving home, care from adults, sufficient food, access to education, and the childhood freedoms that are the rights of every child. This 'new' (Kress and Van Leeuwen, 1996) information tells the tragic story behind the school shoes we rarely give much thought to. The contrast in the children's lives reaches its most impactful conclusion when the child on the left is shown taking off his school shoes at the end of the day, while the clip on the right shows the child in the factory continuing to work and produce the very shoes shown on the left. The dual clips are accompanied by a melancholic soundtrack ('All I need' by Radiohead), with its themes of loneliness and unnoticed admiration. The lack of spoken text allows for different levels of interpretation and could elicit rich discussion in the classroom.

Teachers can support students to interpret the choices of the text creators through carefully worded questions which incorporate visual metalanguage. For example:

- how has the creator used layout to help meet the persuasive purpose of this text?
- how does the clip creator use different distances or shots to show the details of the children's lives?
- how does the mournful tone of the sound track contribute to meeting the persuasive purpose of the text?
- how has the text creator attempted to make the audience connect emotionally or personally with the text?

'First 1000 days' by World Vision Australia

YouTube video: 'First 1000 days' by World Vision Australia
https://youtu.be/J3IQOb3Aw0M

This video advertisement (2 mins 23 secs) aims to highlight the importance of nutrition in the first one thousand days of a child's life. It also encourages viewers to partner with World Vision Australia to urge world leaders to address poor maternal and childhood nutrition. The clip begins like a fairytale, with the written text and voice over narrating: 'Once upon a time...'. It continues by introducing the caricatured image of Peter Pan, the boy who never grew up. However, this perpetually young boy is used to symbolise the child who doesn't grow properly due to poor nutrition. The magical Tinkerbell symbolises the transformative power of appropriate nourishment. The written and spoken text also draw on the Peter Pan story through the appropriation of Never Never Land. The repetition of 'never never' in the verb groups describes the prospects of the child character and explains the vicious cycle of poverty. This use of intertextuality would resonate with an audience who possesses childhood memories of the fairytale, conjuring up remembered feelings of wonder, while putting a poignant spin on the realities of never growing up and the subsequent consequences. The clip uses a simple colour palette and seemingly 'cut out' images of the featured characters and setting. These design features lower the modality (Kress and Van Leeuwen, 1996) of the clip in contrast to other videos by World Vision Australia that often feature footage of real children and families via high modality images. By choosing these stylised characters and setting, World Vision Australia is highlighting the plight shared by different communities in various countries across the world, focussing the audience on the enormity of the intergenerational issue. This issue is reiterated through the call to action at the conclusion of the clip: 'Join World Vision's Child Health Now campaign today and call on world leaders to urgently address poor maternal and child nutrition'.

Teachers will probably need to fill gaps in student background knowledge regarding the original Peter Pan story by J. M. Barrie, briefing students on the characters, plot and themes prior to viewing 'First 1000 days'.

Subsequent discussion prompts that could help students to analyse and interpret the text in a critical way could include the following:

- what is World Vision Australia saying about the idea of never growing up?
- how is the Peter Pan fairytale used to connect to the audience's emotions?

- how does the lowered modality of the images help to focus the audience on the issue of poor maternal and child nutrition?

'Mr. W' by Epuron

YouTube video: 'Mr. W' by Epuron https://youtu.be/2mTLO2F_ERY

A German commercial for wind energy, this quirky digital clip (2 mins 3 secs) uses humour and novelty to engage the viewer and keep them guessing about the main character (played by actor Guillaume Raffi) right up until the very end. The advertisement begins and ends with interview style 'pieces to camera', showing close-ups of a figure clad all in black with ill-fitting clothes and hat, foreshadowing the concept that this is a person who doesn't 'fit in' to society. This disruptive character is then shown moving through various common settings, interacting with people in a most uncommon way. He throws sand in the face of a child in a playground; tussles the hair of a well-dressed woman; pulls another woman's skirt up, exposing her knickers; knocks pot plants off window sills; turns umbrellas inside out; bangs window shutters; bats the hat off a man's head; and pushes a load of plastic bottles from a homeless man's trolley. One socially inappropriate action after the other leaves the viewer wondering: 'who does this person think he is?' and 'why isn't anyone telling him to stop?'. The main character delivers a voice over throughout the advertisement. In language reminiscent of a job interview, he shares his sadness at not belonging and being misunderstood, until his potential is finally noticed and harnessed. It isn't until the closing screens, however, that a written text emerges, revealing the character to be a personification of the wind: 'The Wind. His potential is ours'. As the meaning of this visual metaphor slowly dawns on the viewer, and they begin to make sense of all the strange scenes they have witnessed, Mr. W turns and gently spins the wind turbine replica that has sat, unnoticed, on a table behind him throughout the entire advertisement.

Teachers can draw student attention to the clever persuasive and audience engagement techniques in 'Mr. W' through questions such as:

- why did the text creator use the contrasting close-up eye level shots of the main character and longer shots from a distance to help characterise Mr. W?
- how did the text creator use the element of surprise and viewer concern for other people to keep the audience watching and thinking throughout this advertisement?

- people don't normally feel strong emotions for the wind. What techniques do the text creators use to generate feelings in the viewer?

'Lasting energy' by Australian Bananas

YouTube video: 'Lasting energy' by Australian Bananas
https://youtu.be/gjhohEqv4so

This television advertisement (30 secs) for the popular Australian fruit contrasts the 'no nos' of sugary junk food with the long-lasting energy of bananas, affectionately referred to as 'na nas'. The ad employs a number of sophisticated visual techniques. Beginning with a scene showing a woman holding a sugary snack in one hand and a banana in the other, the 'given' and 'new' (Kress and Van Leeuwen, 1996) layout is evident. The no no is positioned on the left, in the 'given', and the na na on the right, in the 'new'. Subsequent scenes then follow a repeating pattern of showing no nos and their negative effect on the consumer, followed by a corresponding na na scene with their positive effects. The no no eaters are shown as unhappy, unhealthy and sedentary people. While na na eaters appear happy, healthy and active. The visual modality of these scenes also follows this pattern with no nos depicted using unnatural colour saturation and grey, unhealthy, 'peaky' colours. These scenes have 'animated' qualities that include an oversized boxing glove punching a no no eater, a chair rocketing a no no eater through the roof of a building, and the background whizzing around behind an overweight participant to show the unnatural and unpleasant experiences of the no no eater. In contrast, the na na eaters are shown in pleasant outdoor environments via a more realistic colour saturation, with brighter yellow-tinged lighting, symbolic of bananas.

The angles used throughout the ad further contribute to the intended message. A scene toward the beginning of the commercial positions the viewer above, as a no no eater is rocketed through the sky, creating a sense that we all know the feeling of a 'sugar high'. Toward the end of the advertisement, a scene shot from below features a boy kicking a football high into the sky, towards the sun, symbolic of the natural 'high' created by bananas. The viewer is positioned to believe bananas have given the eater the ability to soar naturally. Placement of a shot from above at the beginning of the ad and a shot from below at the end of the ad provides a type of balance and cohesion that is echoed in the verbal text of the voice over. The voice over also makes use of alliteration, juxtaposition of competing elements, and evaluative language. A transcript and verbal analysis can be accessed on <u>Gumleaf Games and Resources</u> .

Students can be supported to critically consider the elements employed by the 'Lasting Energy' advertisement through questions such as:

- how is what we know about healthy and unhealthy food choices echoed in the left-to-right layout in the opening scene of the ad?
- how do the ad creators position the viewer to think about sugary snacks versus bananas through angles at the beginning and end of the ad?
- how is the symbolic use of colour employed in each of the scenes? How does this build up a pattern that is intended to persuade the viewer to choose bananas over junk food?

These persuasive texts are rich examples of the genre, and make use of many more techniques than there is room to explore here. It is hoped that these brief explanations will provide a starting point for classroom discussion and discovery. If teachers analyse the structure and features of a persuasive multimodal text, considering the techniques used to meet the purpose of the text, for the audience, they are well placed to lead classroom discussions that support student description, interpretation and analysis of the texts. Teacher modelling of visual metalanguage during discussions and the contextualised use of metalanguage in teacher questions encourage meaningful use of shared metalanguage and deep understanding of persuasive texts to help students to become 'active and informed citizens' (MCEETYA, 2008, pp 6-7).

References and further reading

Asha, J. (2013, May 1). Australian Bananas advertisement campaign: How the visual and verbal features work together to create a successful ad [Gumleaf Games and Resources web blog post].

Asha, J. (2018). Teaching visual grammar in the context of digital texts. *Scan, 37*(7).

Australian Bananas [AustralianBananans]. (2012, August 15). *Australian Bananas 'Lasting energy' 30 sec TV commercial* [Video file].

Australian Curriculum, Assessment and Reporting Authority. (2012). English
.

Durrant, C. & Green, B. (2000). Literacy and new technologies in school education: Meeting the l(IT)eracy challenge? *Australian Journal of Language and Literacy, 23*(2), 89-105.

Epuron [Guillaume Raffi]. (2000, January 1). *Mr. W* [Video file].

Freebody, P. (2007). *Literacy education in school: Research perspectives from the past, for the future.* Camberwell, Australia: ACER.

Kervin, L. & Mantei, J. (2009). Using computers to support children as authors: An examination of three cases. *Technology, Pedagogy and Education*, *18*(1), 19-32.

Kress, G. & van Leeuwen, T. (1996). *Reading images: The grammar of visual design.* London, England: Routledge.

Ministerial Council on Education, Employment, Training and Youth Affairs. (2008). *Melbourne declaration on educational goals for young Australians*

NSW Department of Education. (2016). English textual concepts .

NSW Education Standards Authority (NESA) for and on behalf of the Crown in right of the State of New South Wales. (2012). *English K-10 syllabus* .

Radiohead & MTV. (2008, May 2). *Radiohead 'All I need' video for MTV's EXIT campaign* [Video file].

World Vision Australia [WorldVision Aus]. (2011, September 18). *First 1000 days | World Vision Australia* [Video file].

Zammit, K. & Downes, T. (2002). New learning environments and the multiliterate individual: A framework for educators. *Australian Journal of Language and Literacy, 25*(2), 24-36.

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Constructing meaning with persuasive online advertisements

Jennifer Asha, literacy educator, follows up on an earlier article by presenting some more complex texts that teachers can use to investigate persuasive techniques.

In Examining persuasive techniques using visual and digital texts I described four high quality persuasive texts that can be worthwhile resources for lessons designed to explore the structures, features, purpose and audience of texts created for persuasive purposes. In this article I will examine some richer texts that can help teachers to demonstrate critical literacy practices and guide their students towards being critically literate consumers of multimodal persuasive texts.

The need for critical comprehension

The use of multiple sign systems to make meaning within multimodal texts (Seigel, 2006) requires the reader-viewer to enact sophisticated skills to access the layers of meaning (Albers, 2008) and comprehend the text. It is important for teachers to encourage students to bring together the resources for decoding the multiple sign systems of a text; for comprehending the meanings intended by a text's creators; and for critically considering the context of the text and their own interpretation of these meanings as suggested by the Four Resources Model (Luke and Freebody, 1999). By examining texts and considering the reading practices required by persuasive multimodal texts, teachers can assist students to better comprehend them. In turn, the reader-viewer can better understand the demands of a text and be more able to engage in self-regulated learning (Zimmerman, 1990) as well as becoming 'strategic, motivated and independent learners' (Paris and Paris, 2001, p 89). In addition, teachers can select specific English textual concepts as a means of focusing learning and teaching practices to meet the English K-10 Syllabus outcomes.

Using multimodal texts to meet outcomes within different key learning areas

Primary school teachers have become experts at meeting outcomes from multiple key learning areas within a single lesson or unit of work. High quality texts are often pivotal in these lessons, combining a variety of types of text, styles and modes that complement each other and allow teachers to highlight learning intentions and teach content knowledge of different Key Learning Areas. In the following paragraphs I will describe several online advertisements and the visual and verbal techniques employed by their creators to meet their purpose for the intended audience. I have included cross curriculum links and made suggestions of print-based literature that could be used to further support learning in the Geography K-10 Syllabus and History K-10 Syllabus across the primary school. Each of the texts mentioned here could be discussed with students in ways that encourage critical literacy. Discussion starters such as those following can be adjusted to suit the text being studied, students' age and literacy development stage.

- Who is the intended audience of this text?
- What is the creator's ideology? How is the reader-viewer being encouraged to think about a particular topic or issue?
- What is the ideology that I bring to this text? How can I make personal connections to the text? Does the text resonate with me or challenge my thinking?

'Mog's Christmas Calamity' by Sainsbury's

YouTube video: 'Mog's Christmas Calamity' by Sainsbury's
(https://youtu.be/kuRn2S7iPNU 3 min 20 sec)

Audience and purpose
Created for a Sainsbury's supermarket campaign in the United Kingdom to support the Save the Children Fund and improve child literacy, 'Mog's Christmas Calamity' (3.21) is pitched at an older group of viewers familiar with Judith Kerr's picture book 'Mog's Christmas', originally published in 1976, as well as to a new audience of young children. The advertisement aims to connect the Sainsbury brand to positive memories of much-loved characters, childhood reading and family celebrations.

Multimodal persuasive techniques
With the familiar voice of Emma Thompson providing the narration, a cameo appearance by Judith Kerr, the written message 'Christmas is for sharing', and the supermarket's logo shown only in the closing frames, the multimodal text comes across as a heart rending mini feature film rather than an advertisement.

The viewer is introduced to each member of the Thomas family through close up shots (Kress and Van Leeuwen, 1996) of them asleep in their beds, peacefully dreaming. This is reminiscent of the classic Christmas poem 'Twas the night before Christmas' by Clement Clarke Moore. In a similar close up shot the viewer is shown Mog, not dreaming pleasantly but having a nightmare. Her reaction to the bad dream sets off a chain of disastrous events that culminate in burning a large portion of the Thomas' house and destroying the family's Christmas. The action, whether it be clumsily running along the kitchen bench, hanging on for dear life to the ceiling fan, knocking the phone off the hook and accidently dialling the emergency number, or scampering through the cat flap entangled in Christmas lights, is shown from Mog's eye level. The angle and distance (Kress and Van Leeuwen, 1996) of these shots assist the creators in characterising Mog by allowing the viewer to see the cat's facial expressions and thereby enabling a connection with the character's emotions. To a lesser extent but with similar effect, Mr and Mrs Thomas are also shown through close up, eye level shots as they react to the events

going on around them. Initially their response is sorrow at the state of their house and their Christmas preparations. However, by the resolution of the narrative, when the neighbouring community gathers to save and share Christmas, Mr Thomas is shown beaming with joy and relief. While the narrator tells a version of the story that has Mog as the hero, the viewer has the 'inside scoop' that Mog is in fact the cause of the disaster. This insider knowledge assists in connecting the viewer to the storyline. It is the viewers' connection to the ideas, to the advertised brand and to supporting Save the Children Fund through the purchase of the picture book 'Mog's Christmas Calamity' that Sainsbury's is aiming for

Supporting Literature suggestions

- Mog's Christmas Calamity by Judith Kerr
- Little Dog and the Christmas Wish by Corinne Fenton and Robin Cowcher
- Queen Victoria's Christmas by Jackie French and Bruce Whatley

Characterisation can be explored through each of the texts by examining how visual and verbal elements are used by the creators. Comprehension can be encouraged by helping students to recognise the similar and different themes, text structures, purposes and audiences of each text. History outcomes for Early Stage 1 and Stage 1 students can be met by comparing the ways Christmas is celebrated in the different texts and in students' own families, and with changes that have occurred to Christmas celebrations over time being highlighted for students (HTe-1 , HTe-2 ,HT1-1 , HT1-4).

'LIFE-Landcare is for Everyone' by Landcare Australia

YouTube video: LIFE - Landcare is for Everyone by Landcare Australia
(https://youtu.be/mZqEB8T6mN4 2 min)

Audience and purpose
Initially a television advertisement, now available only online, this advertisement was created with the purpose of raising awareness of the Landcare Australia organisation and encouraging Australians to actively care for land and water in their everyday lives.

Multimodal persuasive techniques
The animation (2.01) shows stylised people enjoying the natural environment and engaging in a variety of sustainable practices. The illustrative style gives the animated characters and setting the look of being made of wood. This link to the environmental theme of the text also has the effect of lowering the modality (Kress and Van Leeuwen, 1996) of the images and allowing the viewer to put themselves 'in the picture' and

encouraging the viewer, in the words of the upbeat sound track, to 'step on up' and play their part.

The advertisement employs the visual element of alternating distances through a series of intimate close up shots, to show detailed facial expressions and actions or tiny aspects of the environment, being juxtaposed with rapid zooming out shots that show wider scenic views and the results of the sustainable actions of the characters. This pairing of shot distances echoes the sustainability mantra 'think globally, act locally'. Extreme long shots are used to visually suggest that sustainable practices in Australia can have a positive effect around the world. The final frames of the advertisement pause on a map of the country while encouraging every Australian to lead the way in best practice through a banner stating 'Landcare is for Everyone'. By merging the animated map of Australia with the Landcare logo, the final frame reminds the viewers of the brand and directs them to the organisation's website. This confirms the creator of the film text and its purpose of raising the profile and interests of Landcare Australia.

Supporting Literature suggestions

- 'The Windy Farm' by Doug MacLeod and Craig Smith
- 'Cry Me a River' by Rodney McRae
- 'Uno's Garden' by Graham Base
- 'The Lorax' by Dr Seuss
- 'The Curious Garden' by Peter Brown

The Landcare advertisement could be used to introduce an integrated English/Geography unit of work designed to examine sustainable practices that protect environments. The use of literary texts to teach critical comprehension practices and elicit further discussion about environmental themes and sustainable practices would complement the use of informative texts to research the topic and further meet Geography outcomes (GE2-1 , GE2-2 , GE2-3 , GE2-4).

'Japan - Where Tradition Meets the Future' by JNTO

YouTube video: 'Japan - Where Tradition Meets the Future' by JNTO
(https://youtu.be/WLIv7HnZ_fE 3 min 1 sec)

Audience and purpose

This advertisement (3.02) forms part of a tourism campaign designed to entice a range of visitors to Japan by showing aspects of the country's rich and unique history alongside its ability to innovate and inspire.

The dual nature of Japan as steeped in tradition while reaching towards the future is exhibited through the multimodal motif of contrast. The advertisement employs contrast in terms of the settings or scenes shown (technological versus natural, night versus day, busy city versus quiet rural scenery, indoors versus outdoors) and the people depicted (both female and male faces, religious monks versus everyday people, older people versus younger, traditionally dressed versus the contemporary). The contrast motif is a strong feature of the cinematic choices. Close ups that show details and longer distance shots to allow the viewer to take in whole scenes of both natural and built environments. The instrumental sound track starts with a slow beat that builds to a faster one before slowing down again at the end of the advertisement.

Other visual choices have been made to engage the intended audience. Numerous close up shots of faces make the advertisement more personally engaging as the depicted participants meet the eye of the viewer through visual demands (Kress and Van Leeuwen, 1996). The angles (Kress and Van Leeuwen, 1996) scenes are shown from and the speed through which different scenes are presented position the viewer in particular ways. The opening frame, shot from below (Kress and Van Leeuwen, 1996), positions the viewer looking up and thus emulating a sense of wonder. The rapid fire of scenes is reminiscent of an awed visitor who is trying to take everything in. In contrast, the lingering scenes help to create balance and not overwhelm the viewer. The resulting effect of such persuasive devices is a text that encourages the viewer to discover aspects of a culture that is ancient as well as one in continual change.

'Japan Disaster - One Year On' by WorldVision Australia

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*YouTube video: 'Japan Disaster – One Year On' by WorldVision Australia
(https://youtu.be/Kop4OH_EBPo 3min 25sec)*

Audience and purpose

Created in 2012 this advertisement (3.26) was made to thank WorldVision supporters and show the results of their donations in assisting the 2011 Japanese tsunami survivors to rebuild their communities.

Multimodal persuasive techniques

The advertisement begins with still images, taken at the time of disaster, to show the effects of the tsunami. It then transitions into moving images to show footage of the action being undertaken to help re-establish community and industry. The dynamic nature of these images can be seen as being symbolic of the communities being assisted to move on from the disaster. The accompanying voice over and music is slow, poignant and

emotive, setting an appropriately respectful mood. Less personal mid distance shots of children and adults at school, play or working are interspersed with close up shots of interviewees reporting on progress and the positive effects of WorldVision support. These 'pieces to camera' show the participant 'face on' to the camera though gazing 'off camera' presumably to the interviewer, in a visual offer (Kress and Van Leeuwen, 1996). These interviews add a personal touch to the narrated impersonal statistics and facts.

The verbal text has tightly packed 'noun groups' that make use of technical and factually descriptive adjectives, for example; 'disaster risk reduction program', 'solar panels', 'emergency supplies', 'storage units', 'evacuation centres'. The advertisement is particularly personalised at the end of the sequence when an interviewee speaks to the audience via a visual demand (Kress and Van Leeuwen, 1996) directly saying, 'Thank you' to the intended audience.

This pair of digital advertisements focusing on Japan could form the basis of lessons designed to learn more about one of Australia's neighbours. Though they have very different purposes and audiences they each employ persuasive techniques to meet their specific objectives. They offer teachers and students the opportunity to practise their critical literacy while learning more about the focus country (GE3-1 , GE3-2 , GE3-4).

Critical literacy is an important part of English literacy across the learning stages (Zammit and Downes, 2002; Freebody, 2007). Exemplary texts such as those described here can provide teachers and students with resources to practise their code-breaking, text participant, text user and critical literacy practices (Luke and Freebody, 1999) as they construct meaning with multimodal texts that also allow for learning in other Key Learning Areas.

References and further reading

Albers, P. (2008). Theorizing visual representation in children's literature. *Journal of Literacy Research*, 40, 163-200.

Freebody, P. (2007). *Literacy education in school: Research perspectives from the past, for the future*. Camberwell, Victoria: ACER.

Kress, G. & van Leeuwen, T. (1996). *Reading images: The grammar of visual design*. London, England: Routledge.

Luke, A. & Freebody, P. (1999). A map of possible practices: further notes on the four resources model [online]. *Practically Primary*, 4(2), 5-8.

NSW Department of Education. (2016). English textual concepts .

NSW Education Standards Authority (NESA) for and on behalf of the Crown in right of the State of New South Wales. (2012). *English K-10 syllabus* .

NSW Education Standards Authority (NESA) for and on behalf of the Crown in right of the State of New South Wales. (2012). *Geography K-10 syllabus* .

NSW Education Standards Authority (NESA) for and on behalf of the Crown in right of the State of New South Wales. (2012). *History K-10 syllabus.*

Paris, S.G. & Paris, A. H. (2001) Classroom Applications of Research on Self-Regulated Learning, *Educational Psychologist*, (36)2, 89-101.

Siegel, M. (2006). Rereading the signs: Multimodal transformations in the field of literacy education. *Language Arts*, 84(1), 65-77.

Zammit, K. & Downes, T. (2002). New learning environments and the multiliterate individual: A framework for educators. *Australian journal of language and literacy,* 25(2), 24-36.

Zimmerman, B. J. (1990). Self-regulated learning and academic achievement: An overview. *Educational psychologist,* 25(1), 3-17.

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Sailing unchartered territory – The Voyage game

Jeffrey Fletcher, senior education officer at the Australian National Maritime Museum, talks about using a game for learning about convicts - The Voyage Game.

The Voyage game, Australian National Museum (ANMM)

A different learning model for teaching a convicts unit

The learning task:

The year is 1830. You are the Surgeon Superintendent aboard a convict vessel transporting its human cargo from Britain to the far reaches of the known world – Van Diemen's Land. You are charged with delivering several hundred convicts to the colony in good health and in the shortest time possible, with minimum loss of life. This is the way to make money and further your reputation and position. Players must make decisions, solve problems and deal with conflicts on a perilous journey across the globe. Are you up to the task?

This is the premise of The Voyage – a free online game available on the Australian National Maritime Museum's website. The scenarios, although invented, are based on approximately 10,000 real convict and voyage records. Students role-play the ship's Surgeon Superintendent, who was responsible for the delivery of convicts on time, alive and in good health. This was a pathway to future success – doing well on these voyages enhanced a surgeon's prospects in both Britain and the colonies.

Students must decide on what supplies they will take, how they will manage the convicts and make decisions on pop-up scenarios that can alter the direction the game takes, and the ultimate result. A series of

gauges keep players informed as to status of key areas such as supplies, morale and health aboard ship.

When I was first introduced to the concept for The Voyage, my immediate thoughts turned to how accurate it would need to be for teachers to adopt it as a legitimate educational tool and how the graphics, humour and competitive pathway structure would need to pass the ever-discerning and somewhat punishing scrutiny of students. The Voyage needed to engage a particular audience for a specific purpose, yet effectively serve two masters – the students who would play it and the teachers who would implement it. This game needed to be good. What gave me confidence for this project was the quality of our partners – Dr Hamish Maxwell Stewart, an amazingly knowledgeable and engaging history professor from the University of Tasmania and the diverse and vibrant visual storytelling of ROAR films and Screen Australia.

Why choose a game?

Games in education have been around a long time, from board games to electronic games and now digital games online. Benefits include improving skills in:

* group dynamics

* literacy and numeracy

* decision-making

* critical thinking

* strategy

* empathy

* engagement with the curriculum.

Today, virtual gaming offers a plethora of learning opportunities through online playing, sharing, collaborating, challenging, investigating and resourcing. Much has been written on the effectiveness of games-based learning and research continues but, as educators, the key question is 'How do we maximise the value of games for students through holistic learning strategies that support both investigative and serendipitous learning?'

Indeed, as a museum, placing our interpretation and learning strategies in a gaming format was quite a leap, not dissimilar, I suspect, to many teachers giving over valuable lesson time to a game. However, playing games in 'learning time' is different to 'leisure time' and is certainly

nothing to be feared. Like any situation, we learn from our mistakes, so playing multiple times with a challenge to improve the end result is an intrinsic motivation for players. However, when introducing any new learning tool – digital or not – into a structured pedagogy, we must make discerning choices. Richard Halverson (2005) posits the need for teachers to re-examine the core principles of learning in new environments:

… Gee (2003) argues that the compelling nature of video game participation is in part due to the underlying social, cognitive, and developmental learning principles around which game designers build successful games … When school leaders and teachers begin to appreciate the compelling nature of gameplay and the powerful learning principles embedded in games as positives, they then can consider how games might inspire alternative approaches to learning.

Real stories – authentic learning

We based the game on voyages to Hobart as it was an incredibly important and infamous penal colony, and because, as a national museum, we endeavour to tell stories from every corner of our country. Being grounded in real stories brings an intrinsic authenticity to the project, and the game is enjoyable to play.

Catching rats in The Voyage game

A series of break-out games use humour and anachronisms to advantage, such as 'shooting' as many rats as you can to prevent the spread of disease and infestation of food. In fact, the whole game uses humour as a pathway to engagement – a most difficult thing to do, particularly across a spread of age groups, as The Voyage straddles the history curriculum for Years 5 and 9 of the Australian curriculum.

Some Year 4 classes have also found it useful as part of the Explorers unit. There are also applied competencies for English, visual arts, science, design and technology, maths and geography, so it is most suitable as a core element in an integrated primary school program and has cross-curriculum, literacy, numeracy and critical thinking benefits for high school students.

The game is also eminently relevant for those studying computing, particularly game mechanics. During our trials with different aged school groups we asked them to think of it in terms of an alternative way to approach their school work rather than a game made purely for entertainment. It seemed to resonate with students as a viable learning approach, some choosing to play it solo and others to collaborate in groups. Teachers can introduce the game in a way that suits the dynamics of their particular class.

The Voyage initiative—including the focus, design and introduction of the game into the museum – reflects interdisciplinary conversations relating to the potential relationship between digital innovations, game play, young people, education, history and the contemporary museums. Rowan, L., Townend, G. & Beavis, C. (2016)

We were also very aware of making the game as accessible to as many students and school digital systems as possible. Creating it in HTML 5 with capability across different devices was something that was important to its central functionality. In our trials, some students preferred using their phone, others tablets and others laptops, although the popular choice appears to have been tablets. The project also needed to be serviceable for teachers as an overall package, so the construction and playability needed to synchronise with usage and resourcing.

The Historian – The Voyage by the Australian National Maritime Museum (https://youtu.be/C3fm2skYbdg 3 mins 9 secs)

As a museum, we feel that our education remit and commitment does not stop at exhibitions, events and programs. It is important that resources from our Collection, expertise and associates are made available to teachers and students for use in the classroom to augment and support their museum experience.

European Impact by the Australian National Maritime Museum (https://youtu.be/yy30BBZ2xJw 2 mins 38 secs)

We have created a first tier of resources which will be regularly populated with additional material. These include an image gallery of associated documents and artefacts from the Australian National Maritime Collection, such as a pardon for a convict from Hobart and a 19th century medicine chest, similar to those used on such voyages.

Accompanying these are interviews with the game developers on how they put the game together, historians on convict voyages and descendants, including the experience of children, as well as two short films that explore the impact of the European presence on Indigenous people.

There are also suggested classroom activities for secondary and primary schools, web links to other resources and we will shortly be adding an open-ended storytelling video and an iTunesU course – all specifically designed to assist teachers in embedding The Voyage into a well-resourced and sequenced unit of work. This year, we also hope to run a series of 'meet the curator' workshops where students can talk to an expert in the field and learn more about these fascinating, compelling and important voyages.

Post script

To date, over 125,000 people have played the game in Australia. We are also proud to have received a 2016 Museums and Galleries National Award (MAGNA) for The Voyage in the Interpretation, Learning and Audience Engagement category and an Australian Teachers of Media (ATOM) award in the Educational Game category. The London Grid for Learning has also made the game available to London schools. The game and associated materials also appear on ABC Education .

The Voyage Game and resources are available free.

References and further reading

ABC 2016, 'Convict voyages' , *ABC Education*, accessed 28 February 2017.

Australian National Maritime Museum , Sydney, accessed 28 February 2017.

Australian National Maritime Museum 2016, 'European impact' , *YouTube*, accessed 28 February 2017.

Australian National Maritime Museum 2015, The historian – The Voyage , *YouTube*, accessed 28 February 2017.

Gee, J. 2003, *Learning and Identity: What does it mean to be a half-elf? What video games have to teach us about language and literacy*, Palgrave Macmillan, New York.

Halverson, R. 2005, 'What can K-12 school leaders learn from video games and gaming?' , *Innovate: Journal of Online Education*, vol. 1, no. 6, accessed 28 February 2017.

Rowan, L., Townsend, G. & Beavis, C. 2016, 'Museums, games, and historical imagination: student responses to a games-based experience at the Australian National Maritime Museum', *Digital Culture and Education*, vol. 8.

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SPaRK - Madaya Mom

By Kelly Hodkinson – Head Teacher English at Erskine Park High School.

SPaRK overview

A using quality literature Shared Practice and Resource Kit (SPaRK) for English Stage 5, Years 9-10.

Resource: Website – Madaya Mom . A collaboration between ABC News, USA and Marvel Comics.

Learning and teaching activities in this SPaRK are centred on outcomes and content from the NSW English K-10 Syllabus and the English Textual Concepts resource .

What is it about?

'Madaya Mom' is the story of a mother trapped in the besieged town of Madaya, Syria. It is based on the daily text message conversations between this woman and an ABC News reporter in America. For safety reasons the woman and her family and their lives are represented to us as characters in a digital comic. The comic explores the hardships of their lives through the setting, situations and especially the facial expressions. The comic has been produced by Marvel a sister company of the ABC whose journalists have been corresponding with the source. They believed using the medium of digital comics was a way to reach a wider audience. The ABC News website also has multiple news stories about the making of 'Madaya Mom' including interviews with the comics creator Dalibor Talajic, the news correspondent, and additional news coverage from the Syrian war, all of which add layers of meaning to the text.

This text is appropriate for teaching students about Genre, Context and Character. It could easily be used to teach many

other concepts including, Authority, Code and Convention, Connotation, Imagery and Symbol, Intertextuality, Literary
Value, Narrative, Perspective, Point of
View, Representation, Style or Theme. It also addresses cross curricular priorities and capabilities, including intercultural understanding, critical and creative thinking, information and communication technology capability, literacy, personal and social capability, and difference and diversity.

Why is this important? Why does it matter?

This digital text provides an excellent opportunity for students to explore the highly recognisable Genre of superheroes and Marvel comics and to consider how this text can be thought of as subverting the genre whilst also confirming it. Students' notions of the ways one can construct a Character can also be challenged, as Madaya Mom is based on limited knowledge gathered from an SMS text conversation with a reporter. The subject and her family remain anonymous for safety reasons. Students can reflect on the societal values and attitudes presented through her character and what these say about the composer's values, American societal values and our own. This naturally leads to a discussion of how context influences both the composition and responses to texts and how Context shapes the language, forms, and features of a text. With the multiple videos available on the American ABC News website, it is a perfect opportunity for students to consider the interconnectedness of texts and collaborative practices within the media industry. The companies that collaborated on the 'Madaya Mom' project are the American Broadcasting Company (ABC) and Marvel Comics, which are both owned by the Walt Disney Company.

How do I use the text to teach the textual concepts of Character, Context, and Genre?
Genre focus activities

Before presenting the texts to students ask them what they expect from a Marvel comic? What do they expect a comic to be about? What style of writing do they expect? Who will be the main character(s)? Are they male or female? What are their expectations about length, point of view, fiction/nonfiction? Brainstorm the visual features of a comic. Consider how these features influence readership and how different members of the public perceive the texts. Is there any difference in views held on comics versus digital comics or graphic novels? Or is a comic perceived differently to a cartoon or political cartoons? Discuss the implications of these views and values placed on texts. Whilst this discussion can be linked to a general discussion of genre in terms of the form of text, it is likely that students will also have brought up superheroes as a genre based on the content of the comic. Ask students to create a list of conventions associated with this genre or have them research the genre. Students can

also be asked to think about the influence of changing media platforms, as the comic is available digitally rather than in the traditional paper version. Discuss the positives and negatives of new technologies and how these change genres over time.

After students have read the digital comic discuss the content and students' thoughts and opinions on the text. Ask students to refer to their original views of a comic and the superhero genre. Ask students to reflect and write about the ways the text met expectations versus the ways it contradicted their expectations and the impact this had on their enjoyment, understanding, and engagement with the text. Does this text challenge the conventions of the genre? If so, to what purpose and effect?

Watch the video Dalibor Talajic: The Man Behind the Pen of 'Madaya Mom'. This 11-minute video provides opportunities for students to learn about artistic choices, links to personal context, characterisation, and genre. Provide a research sheet for students to take notes related to these points as they watch and listen to the video. Provide students with some of the quotes to add to their research sheet to help them prepare for writing a critical response at a later time. Example quotes: 'Comic books in general can cover any subject … can explain anything to anyone.' 'They [comic books] can have great importance in social matters…' 'It's just an abstract war…' 'Superheroes are not defined by their powers or their physique. Superhero is in a heart. Madaya Mom fits within this category… Real superheroes do exist.'

Ask students to decide whether this interview changes their view of the genre of the digital comic and/or its content. Reread 'Madaya Mom' with the new understanding gained from the video and have students reflect on the representation of the real world depicted. Identify five new things they noticed, or thought more about, because of the video. As students represent the removed audience the artist talks about, ask them to explain the significance of their own context in shaping meaning in this text (connecting, engaging critically, engaging personally).

Dalibor Talajic: The Man Behind the Pen of 'Madaya Mom'

Context
Artistic choice
Character
Genre

EN5-3B

- S503PE2 analyse and explain how text structures, language features and visual features of texts and the context in which texts are experienced may influence audience response (ACELT1641)

EN5-6C

- S506EP1 explain and justify responses to texts and widening personal preferences within and among texts

Essay on best way to tell this story – genre

- S506UA6 study and evaluate variations within conventions of particular genres and how these variations reflect a text's purpose

EN5-8D

- S508RC4 analyse and describe the ways texts sustain or challenge established cultural attitudes and values.

Exploring character and context

Provide groups of students with a question related to character, context, and/or genre. After students have discussed the question within their group they then present their ideas to the class.

Example questions

1. Why do we need superheroes in our lives?
2. Why are superheroes so popular?
3. Can everyday people be considered superheroes?
4. What values are associated with the superhero genre?
5. Why is there a need to represent this story as a digital comic?
6. Why are we distanced from the events in Syria?

Watch An Inside Look at the Making of Madaya Mom   and consider the way Madaya Mom is represented in this story. Create a comparison chart of the ways she is presented in each of the texts. Analyse the use of language and visuals and the effects on the responder. For example, if students identify Madaya Mom as being represented as a caring mother, compare the images in the digital comic of her providing care and showing concern for her sick son, with the language of the presenter in the video '…we had to make sure that we could assure her that her identity would be protected and that we would not endanger her or her family in any way through our reporting'. These differing aspects of the text create different understandings of, and feelings for, the character of Madaya Mom. Ensure students are looking at all aspects of the text for their analysis including language, structure, punctuation, fonts, settings, and point of view. Explain to students that societal values and attitudes influence these character constructs and in turn influence our responses to texts. We subsequently make judgements on both the character and the text in general. Ask students to write an exposition on which text they

believe best portrays Madaya Mom and her situation using evidence from their table.

Aspect of Madaya Mom's character	How is it shown in the digital comic?	How is it shown in the interview?	What effect does it have on the responder?	Which text do you think has the greatest impact? Explain
Caring	Medium shot of Madaya Mom looking over her sleeping sick child with concern	'…we had to make sure that we could assure her that her identity would be protected and that we would not endanger her or her family in any way through our reporting'	Comic - creates a feeling of pity and sadness. Video – creates fear and bravery.	I think the video has more impact because it makes the whole situation more real but the comic shows a more caring side to the mother.

Ask students to think about how they would portray their own mother or someone important to them, as a superhero. Make a list of attributes and brainstorm ways to convey them in a comic. Students create their own comic strip using Canva or a similar digital program. Create a marking criteria with the class. Then share the comics and peer evaluate the overall effectiveness of texts created and the techniques used. Depending on your students, an alternative creative task would be to ask students to decide on another way to get Madaya Mom's story out to the world. What form do they think would be the most meaningful, or compelling, to make the world take notice and act for these people? Have students create this new text and/or pitch the idea to the class
(connecting, experimenting, engaging critically, engaging personally, understanding, reflecting).

EN5-1A

- Analyse and explain the ways language forms and features, ideas, perspectives and originality are used to shape meaning

EN5-2A

- S502EP3 consider how aspects of texts, including characterisation, setting, situations, issues, ideas, tone and point of view, can evoke a range of responses, including empathy, sympathy, antipathy and indifference

EN5-3B

- S503UA8 understand how punctuation is used along with layout and font variations in constructing texts for different audiences and purposes (ACELA1556)
- S506UA10 select a range of digital and multimedia texts and investigate the ways content, form and ideas of texts can be connected

EN5-4B

- Evaluate how particular forms and features of language and structures of texts can be adapted, synthesised and transformed for new and different purposes, audiences and contexts

EN5-6C

- S506UA7 compare the purposes, text structures and language features of traditional and contemporary texts in different media (ACELA1566)

EN5-7D

- S507DA3 explore and reflect on personal understanding of the world and significant human experience gained from interpreting various representations of life matters in texts (ACELT1635)
- Explore and reflect on their own values in relation to the values expressed and explored in texts.

Related texts

A Teacher's Guide for Discussing 'Madaya Mom' With Students by ABC News, USA and Marvel Comics.

Resources

The Situation Inside the Besieged Syrian Town of Madaya

Dalibor Talajic: The Man Behind the Pen of 'Madaya Mom'

How to cite this article - Hodkinson, K. 2017, 'SPaRK – Madaya Mom by ABC News, USA and Marvel Comics', Scan 36(3).

SPaRK – SIX Maps

Engaging students in HSIE using maps and spatial technologies.

By Prue Sommer - teacher and HSIE coordinator at Murray Farm Public School.

Resource overview

A Shared Practice and Resource Kit (SPaRK) for geography and history Years 1-10.

SIX Maps by NSW Department of Finance, Services and Innovation (DFSI) Spatial Services (2018).

Image: SIX Maps

Part of the DFSI Spatial Services portal, SIX Maps is a free online mapping tool, well suited to supporting students' historical and geographical inquiry. SIX is an acronym for Spatial Information eXchange. Accessible on computers and tablets, the SIX Maps viewer provides access to a range of NSW primary spatial data through an intuitive public interface. Content available through SIX Maps (and its companion tools) includes:

- cadastral maps - showing the extent, value and ownership of land
- topographic maps - detailed, accurate graphic representations of features that appear on the earth's surface, such as relief and contour lines
- imagery - satellite, road, historical photographs

- place names - suburbs, cities, regions
- addressing data - private and commercial addresses.

The interface opens with a large-scale satellite image of NSW. A menu across the top of the screen includes tools for measuring area and distance, identifying coordinates, zooming in and out, printing, and dropping CSV files or images onto the map. On the right, 'Map contents' and 'Basemaps' offer a range of drop-down boxes. These enable users to select the map's desired graphic layers (such as flood footprint or flood imagery), map layers (such as lot labels, survey marks and lot boundaries), and basemaps (such as topographic map, NSW road map, satellite imagery and historical imagery from Sydney in 1943).

The DFSI Spatial Services portal also contains a range of other spatial and cadastral services, which may support learning in geography, particularly in Stages 3, 4 and 5. These include:

- NSW Globe
- NSW Spatial Data Catalogue
- CORSnet, Spatial Web Services
- NORNS, Surveyor General's Directions
- Clip and Ship
- Map Store
- Imagery and elevation programs
- Imperial to metric conversion tools
- Survey Mark Sketches

Educational significance

SIX Maps has the capacity to engage and inform students in both history and geography - though it has a greater depth of functionality for the latter. Once demonstrated, students can gather geographical and historical information about their local area or state. This versatile resource could be used in its simplest capacity with a Stage 1 HSIE class or, by utilising all the geographical tools available, could deepen skill acquisition in Stage 5 geography.

Geography

The Geography K-10 Syllabus aims 'to stimulate students' interest in and engagement with the world. Through geographical inquiry, students develop an understanding of the interactions between people, places and environments across a range of scales in order to become informed, responsible and active citizens' (NESA, 2015).

One of the important differences of the new syllabus is a more specific focus on geographical skills and tools, including map and spatial

technologies. This is where SIX Maps becomes invaluable, supporting mandatory skill outcomes and geographical tool use.

History

The History K-10 Syllabus aims 'to stimulate students' interest in and enjoyment of exploring the past, to develop a critical understanding of the past and its impact on the present, to develop the critical skills of historical inquiry and to enable students to participate as active informed and responsible citizens' (NESA, 2012). In this syllabus, there is a more specific integration of historical concepts such as 'change and continuity' and 'cause and effect'. There is also an emphasis on historical skills such as sequencing of time, source analysis and historical perspectives.

SIX Maps supports students' exploration of these skills and concepts. For example, students can investigate an area of land, historical site or environment, and map the changes that have occurred over a period of time. Overlaying the lot boundaries and labels enables students to trace changes in ownership and land use over time, assisting the process of historical inquiry.

Suggestions for using this text

When introducing SIX Maps, each student should ideally have access to a computer or tablet. This provides the opportunity and time for students to independently explore the available tools, building their confidence before undertaking historical or geographical inquiries. Guided instruction would also be beneficial if an interactive board is available.

Teaching activities
Case study - Stage 1 History - The past in the present

Students at Murray Farm Public School use SIX Maps in a local area study of St Paul's Anglican Cemetery (Carlingford).

One of several resources used in this historical inquiry, SIX Maps stimulated students' interest in exploring the history of their local area. Students drew conclusions about their local historical site using primary source aerial photos to compare and contrast. They observed change and continuity in their historical site and the surrounding area of their community. Consequently, students were able to discuss concepts such as cause and effect in relation to the data they collected and understand the significance of the cemetery and its value to the community. Many of the local community's original early settlers are buried in the cemetery, including the school's name sake, Andrew Murray.

Inquiry questions

- What remains of the past can you find in Carlingford?
- What do they tell us about Carlingford?
- Are the remains of the past (cemetery) important to the community?
- Should we preserve St Paul's Anglican Cemetery?

Using SIX Maps

1. Students used SIX Maps on iPads and laptops to do a general search of the suburb of Carlingford.
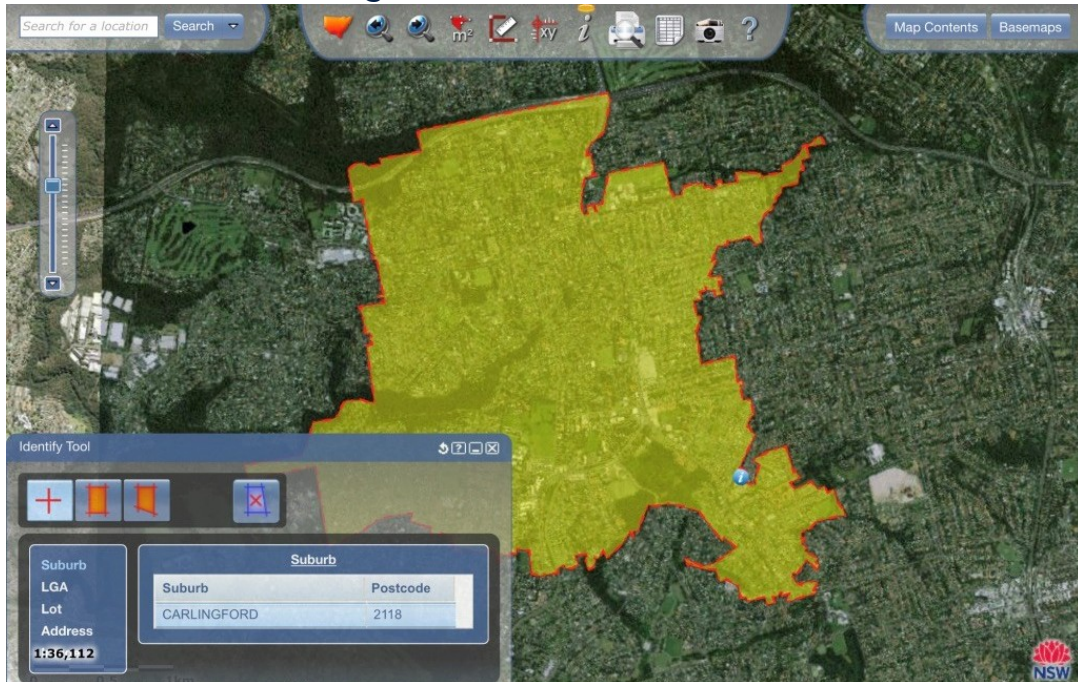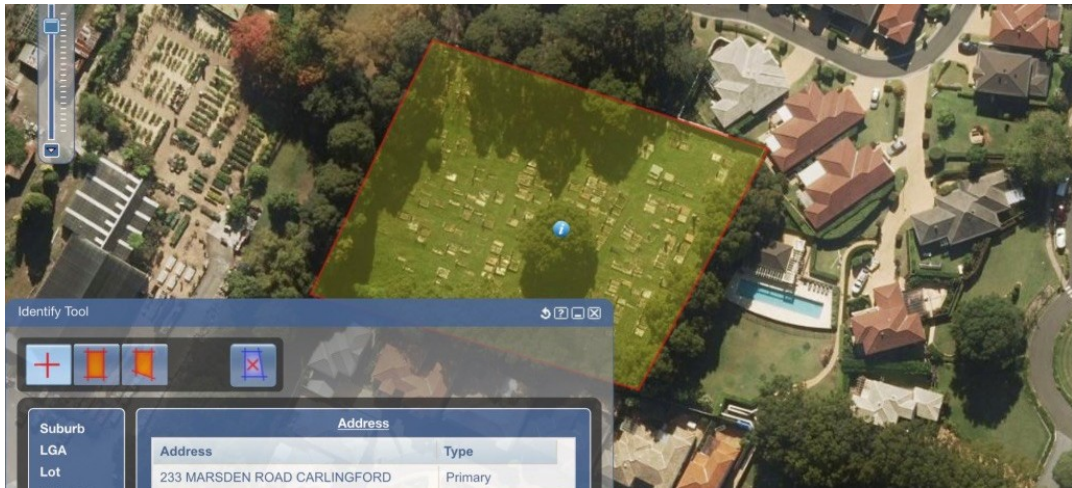

2. Students completed an advanced search of the cemetery's address, which they had already found during a previous inquiry using other sources.
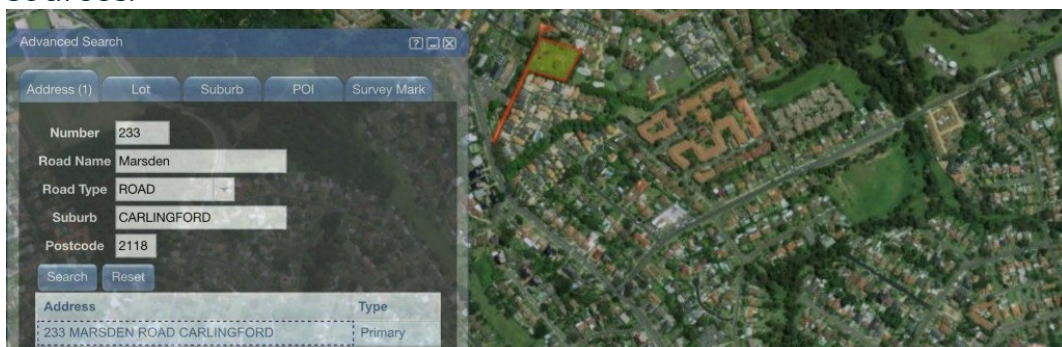
3. Students used the zoom in tool to see a closer bird's eye view of the cemetery, then marked its location using the identify tool.

4. Students selected 'Map contents' to mark out the lot boundaries and add lot labels, so they could ascertain who owns the visible pieces of land - particularly the cemetery - to determine who should be maintaining and preserving it. Students could then write letters persuading the local council or Anglican church to take better care of the cemetery and preserve it as a local historical site, even though it is no longer an active burial site.

5. Finally, students were ready to see changes to the land and land use over time, so they selected the 'Basemaps' drop-down and chose 'Sydney 1943 imagery'. They then used the slide bar to reveal how the land had changed from 1943 to the present day. Using the zoom in tool, students took a closer look at the cemetery and the changing headstones. Using SIX Maps, together with the Australian Cemeteries Index , students were able to locate where and

when Andrew Murray , an early settler of Carlingford, was buried.
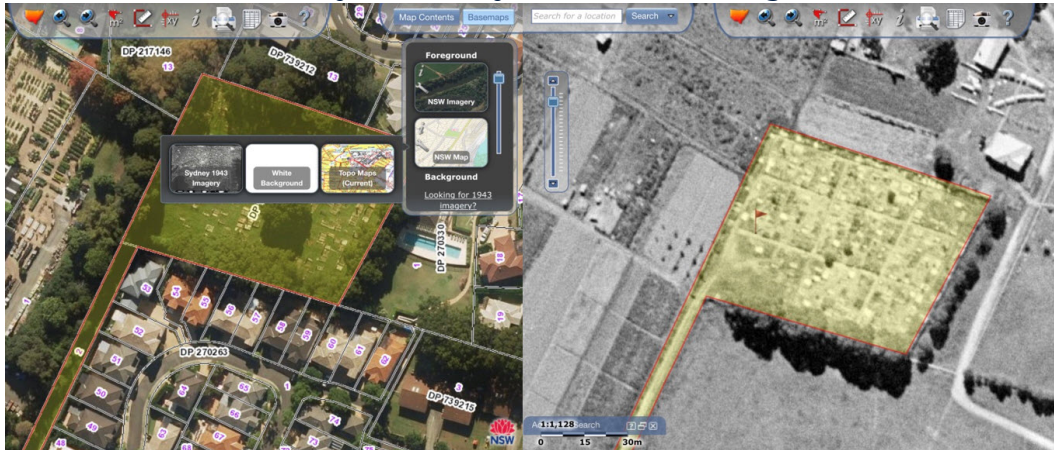
Other teaching activities - Geography

Outcome	Geographical tools available in SIX Maps	Suggested activities
A student communicates geographical information and uses geographical tools for inquiry GE1-3	Maps – M Large-scale maps. Spatial technologies – ST Virtual maps, satellite images. Visual representation – VR Photographs, multimedia, web tools. Note: Also see NSW Globe .	**Area of inquiry – local shops** Students use the advanced search tool to locate their local shops using 'Basemaps' – NSW road, satellite and 1943 imagery. Students use 'Map contents' to add lot labels and boundaries, adjusting the overlayed transparency on their local shops map. Students use the print to PDF tool to copy the original map of the local shops, as well as the version overlayed with lot boundaries and labels. Using these maps, students create an interactive book via apps such as Book Creator , showing how

Outcome	Geographical tools available in SIX Maps	Suggested activities
		the land use has changed over time.
A student communicates geographical information and uses geographical tools for inquiry GE2-4	Maps – M Large-scale maps. Maps to identify location, direction, distance, map references, spatial distribution and patterns. Spatial technologies – ST Virtual maps, satellite images, global positioning systems (GPS). Visual representation – VR Photographs, multimedia, web tools. Note: Also see [NSW Globe]().	**Area of inquiry – local wooded area** Students use the search tool to locate a local wooded area using 'Basemaps' – NSW road, satellite maps and 1943 imagery. Students use the distance tool, area tool and coordinate tool to collect data of their local wooded area. Students use the print to PDF tool to record their wooded area across various basemaps and add these maps to their geographical inquiry. Using the image dropper, students can drag and drop images taken from their fieldwork onto the map. Using the identify tool, students add information about the wooded area.
A student acquires, processes and communicates geographical information and using geographical tools for inquiry GE3-4	Maps – M Large-scale maps, small-scale maps, topographical maps. Maps to identify location, latitude, distance, map references, spatial	**Area of inquiry – State forest conservation** Students use the advanced search tool to locate a State forest they wish to investigate using 'Basemaps' – NSW

Outcome	Geographical tools available in SIX Maps	Suggested activities
	distributions and patterns. Spatial technologies – ST Virtual maps, satellite images, global positioning systems (GPS). Visual representation – VR Photographs, aerial photographs, multimedia, web tools. Note: Also see other Spatial Services tools and services, including NSW Globe .	road, satellite, topographical maps and 1943 imagery. Students use the distance tool, area tool and coordinate tool to collect data about their selected State forest. Using the image dropper tool, students can add images taken from their fieldwork, if possible, or collected from other sources. Note: Within 'Basemaps', a blend of 'NSW imagery' and 'Topo maps (current)' looks the same as Garmin's Bird'sEye service. More detailed topographical maps from your selected area can be downloaded (PDF) or purchased (hard copy) from the Spatial Services Map Store .

Outcome	Geographical tools available in SIX Maps	Suggested activities
A student acquires and processes geographical information by selecting and using geographical tools for inquiry GE4-7	Maps – M Relief maps, topographic maps, choropleth maps, isoline maps, précis maps, cartograms. Maps to identify direction, scale and distance, area and grid references, latitude and longitude, altitude, area, contour lines, gradient, local relief. Spatial technologies – ST Virtual maps, satellite images, global positioning systems (GPS), geographic information systems (GIS). Visual representations – VR Photographs, aerial photographs, multimedia, web tools. Note: Also see other Spatial Services tools and maps.	**Area of inquiry – Landscapes and landforms** Students perform an advanced search to locate a significant landscape or landform, such as The Three Sisters. View this location using 'Basemaps' – NSW road, satellite, topographical maps and 1943 imagery. Students select appropriate tools to collect relevant data about their landform study (for example, using the coordinate tool to determine latitude and longitude). Students use the image dropper tool to drag and drop images (taken personally or sourced from the internet) of their landscape or landform onto the map. Note: Within 'Basemaps', a blend of 'NSW imagery' and 'Topo maps (current)' looks the same as Garmin's Bird'sEye service. More detailed topographical maps from your selected area can be downloaded

Outcome	Geographical tools available in SIX Maps	Suggested activities
		(PDF) or purchased (hard copy) from the Spatial Services Map Store .
A student acquires and processes geographical information by selecting and using appropriate and relevant geographical tools for inquiry GE5-7	Maps – M Relief maps, topographic maps, cadastral maps, thematic maps, isoline maps, land use maps, special-purpose maps, maps to identify direction, scale and distance, area and grid references, degrees and minutes of latitude and longitude, bearings, aspect, altitude, area, density, contour lines, gradient, local relief. Spatial technologies – ST Virtual maps, satellite images, global positioning systems (GPS), geographic information systems (GIS), remote sensing data, augmented reality.	**Area of inquiry – Environmental change and management – Moving to NSW** Students use the advanced search tool to locate a new place of residence in NSW using 'Basemaps' – NSW road, satellite, topographical maps and 1943 imagery. Students select the appropriate tools to collect relevant data about their new address and the surrounding environment. Note: Within 'Basemaps', a blend of 'NSW imagery' and 'Topo maps (current)' looks the same as

Outcome	Geographical tools available in SIX Maps	Suggested activities
	Visual representations – VR Photographs, aerial photographs, illustrations, multimedia, web tools. Note: Also see other Spatial Services tools and maps.	Garmin's Bird'sEye service. More detailed topographical maps from your selected area can be downloaded (PDF) or purchased (hard copy) from the Spatial Services Map Store .

Experimenting

HSIE

Students could use the SIX Maps tools to locate, select and annotate the natural and human features of their school property, tracking changes over time. For example, the class could compare and contrast the size of the grassed and concreted areas and how the use of these spaces has evolved over time. Students could focus their attention on the number of portable buildings on the site and their impacts on the local environment.

A two-fold 'cause and effect' inquiry could follow:

1. Consider the resulting reduction of play areas. What are the possible impacts for students' physical activity?
2. Consider fluctuations in student population through changing birth rates and/or migration into the school zone.

Creative Arts

Students could use the satellite or road maps on SIX Maps as a basis to create their own bird's-eye view of a chosen land area, either built or natural. Natural fibres and objects could be used to create the artwork. Different artworks could be created side-by-side to show changes over time.

Digital Technologies

Students could print out a satellite or road map of a chosen location via the SIX Maps printing tool. Using computational thought and language, they could then program Ozobots , Spheros or Beebots to navigate around the printed map.

References and further reading

Evans, J. (2017, February 25). SIX Maps .

Geography K–10 Syllabus © NSW Education Standards Authority (NESA) for and on behalf of the Crown in right of the State of New South Wales, 2015.

History K–10 Syllabus © NSW Education Standards Authority (NESA) for and on behalf of the Crown in right of the State of New South Wales, 2012.

NSW Department of Finance, Services and Innovation. (2018). NSW Globe .

NSW Department of Finance, Services and Innovation. (2018). SIX Maps .

NSW Department of Finance, Services and Innovation. (2018). Spatial Services .

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SPaRK – NSW ecosystems on show

What are the systems within ecosystems?

By Gaye Braiding - teacher at Field of Mars Environmental Education Centre, Epping North Public School, and NSW Schoolhouse Museum of Public Education.

Resource overview

A Shared Practice and Resource Kit (SPaRK) for geography and science Stage 2 (Years 3-4) and Stage 5 (Years 9-10).

NSW ecosystems on show by NSW Department of Education (2018).

Showcasing fourteen natural ecosystems and one urban ecosystem in New South Wales, NSW ecosystems on show is an interactive resource that supports teaching and learning in science and geography. Each ecosystem is introduced by an overview of its characteristics, climate, plants and animals. Further tabs outline the significance of the ecosystem to animals, people and the environment, and describe strategies for its conservation and protection.

When used in Google Chrome, a Google Earth link takes users to an example of each ecosystem, positioning them within a photo sphere for a rich, virtual, immersive experience. Clicking out of Street View delivers a bird's eye view of the ecosystem, its location and surrounding land uses. This, and links to further examples of the ecosystem, enable virtual fieldwork experiences.

For those seeking hands-on fieldwork investigations in the natural environment, the department's widespread network of environmental education centres is featured in the resource. Related reading and other secondary sources are also suggested, and could be used in preparation for, or as follow-up to, the collection of primary data in the field.

Using the resource to build understanding of the functioning of ecosystems enables students to consider and determine personal sustainability actions that contribute to protecting these ecosystems into the future.

Educational significance

Highlighting the diversity of environments and ecosystems in NSW and their ecological functioning, NSW ecosystems on show supports the Science and Technology K-6 Syllabus, Science 7-10 Syllabus and Geography K-10 Syllabus. It strongly aligns with a systems thinking approach to understanding and working towards sustainability.

With a focus on ecology, the website also supports the Living world modules and strands of the science syllabuses, particularly assisting investigations into the interdependence of living things. It enables students to use systems thinking and the skills of working scientifically as they explore and observe the interrelated living and non-living components of virtual ecosystems. The structure of the resource models ways in which scientific information can be organised and communicated.

For Stage 2 students investigating the survival of living things, the 'significance' tab for each ecosystem provides information on the interrelationships among and between species and their habitats. Students in Stages 4 and 5 investigating and evaluating strategies for conserving and maintaining sustainable ecosystems will find examples of human impacts, threats and management strategies in the 'conservation' tabs.

From a geography perspective, NSW ecosystems on show enables students to acquire information through a variety of geographical tools including photographs, virtual maps, satellite images and web tools. With an emphasis on the characteristics of and interconnections within each ecosystem, the resource reinforces the geographical concepts of place,

space, environment, interconnection and sustainability. In particular, it supports the Geography K-10 Syllabus focus areas: The earth's environment (Stage 2) and Environmental change and management (Stage 5). It could also support Features of places (Stage 1) and Factors that shape places (Stage 3).

At a glance, the website's landing page provides Stage 2 students with a snapshot of different environments and the diverse natural characteristics of Australia. Students could select several of the ecosystems to compare their climate, vegetation and animals. For deeper investigations into the significance of environments, students could use one of the featured ecosystems as a case study.

For Stage 5 students investigating the functioning, role and importance of natural environments in Environmental change and management, the resource provides introductory information and an overview of environmental management as a springboard to deeper investigation.

Suggestions for using this resource

As a class, view an ecosystem in NSW ecosystems on show and make connections using text-to-self, text-to-text and text-to-world strategies. For example, ask questions such as:

- Have you seen environments like this?
- Have you visited a place like this?
- Have you seen photographs, documentaries or social media posts of places like this?
- Have places like this been in the news recently?
- How are places like this being used?
- What issues are you aware of relating to places like this?
- Does this information remind you of other information, websites or books you have accessed previously? (eg see References and further reading for related picture books.)

Define the words 'system' and 'ecology', then define 'ecosystem' as an 'ecological system'. Highlight and define terminology relating to systems such as 'relationships', 'interrelationships', 'interactions', 'interdependence' and 'interconnections'. Use images in the resource to provide examples, for instance the image of beetles feeding on blossoms in the sclerophyll forests – Sydney   ecosystem.

Provide time for students to personally explore the resource using computers or mobile devices. Students use a Y-chart to identify something that was new knowledge, something that generated an emotive response, and a link they found interesting.

Focussing on interconnections and interdependence, students record any questions which emerge as they browse through the resource. These can be used to generate a set of inquiry questions for a scientific or geographical investigation.

Teaching activities

Stage 2 geography – what are the natural characteristics of Australia?

Working in Google Chrome, students explore the ecosystems in <u>NSW ecosystems on show</u> and view the images within each tab. They select the Google Earth link to view a photo sphere of each environment at the personal scale. Students then select the yellow figure to view the area at a local scale, and the minus icon to zoom out to a regional scale.

Using <u>Google My Maps</u>, students plot the locations of the featured ecosystems. They add photographs and labels to each site.

The earth's environment

A student:

- examines features and characteristics of places and environments GE2-1
- acquires and communicates geographical information using geographical tools for inquiry GE2-4.

Content

Different environments

Students investigate the natural characteristics of Australia and a country in Asia (ACHGK020), for example: comparison of climate, natural vegetation and native animals.

Stage 2 geography and science – how does the environment support the lives of living things? How are they interdependent?

Plan a field trip to a nearby natural area for a geographical and scientific investigation. This can be organised through one of the department's <u>environmental education centres</u> or managed independently.

Pre-fieldwork

As a class, using Google Earth in Google Chrome, view a satellite image of the natural area to be visited. Select the yellow figure to view the Street

View level. Using NSW ecosystems on show as a reference, determine the ecosystem type and identify the plants and animals it may support.

Create a mind map to show the potential interconnections between:

- plants and animals. For example, plants as food, plants as shelter
- plants and animals and the non-living features of the environment. For example, plants growing in soil, tadpoles in a pond, plants providing oxygen
- people and the living and non-living features of the environment.

Formulate a set of inquiry questions to guide the fieldwork investigation.

Fieldwork

Plan data recording activities with a focus on interconnections and interdependencies between living things and the environment. Fieldwork activities should include sensory observations, time for exploration and creative ways of recording observations using a variety of media. Suggested fieldwork activities include:

- taking photographs of natural living and non-living features of the environment, human features and examples of interactions, such as a water dragon sunbathing on a tree branch or rock
- constructing field sketches that identify and position human and natural features
- creating labelled scientific drawings detailing specific habitats, such as a habitat tree, rock pool or rotting log
- recording natural and human sounds using a sound map
- hunting for invertebrates using sampling techniques such as sifting through leaf litter, shaking shrub branches onto a mat and dip-netting in ponds
- observing and recording evidence of animals using the environment, such as parrots using tree hollows, termite nests on tree trucks, nests and diggings in the soil
- reflecting on personal experiences and perceptions of the environment as student investigators and visitors.

Post-fieldwork

Tables, annotated photo collages and maps could be used to organise and present the components of an ecosystem and some of the interconnections observed. Supplementary information could be acquired from NSW ecosystems on show and other secondary sources to identify relationships and connections.

Students construct mind maps to show the interactions within the ecosystem. With plants in the centre, students insert animals that rely on

the plants and use arrows and labels to identify the relationships. Students also include non-living features of the environment. As evidence of knowledge and use of systems thinking, students verbally explain some interdependencies illustrated in their concept map. They start to consider actions they could take which conserve and protect the sustainable functioning of ecosystems.

Students select an ecosystem for independent research using NSW ecosystems on show as a source. In groups, students share their information and identify similarities in interrelationships across ecosystem types.

The earth's environment

A student:

- examines features and characteristics of places and environments GE2-1
- describes the ways people, places and environments interact GE2-2
- acquires and communicates geographical information using geographical tools for inquiry GE2-4.

Content

Significance of environments

Students investigate the importance of natural vegetation and natural resources to the environment, animals and people (ACHGK021, ACHGK022, ACHGK024), for example:

- identification of types of natural vegetation, for example forests, grasslands, deserts
- explanation of the importance of natural vegetation to animals and the functioning of the environment, for example provision of habitats, production of oxygen.

Living world

A student:

- questions, plans and conducts scientific investigations, collects and summarises data and communicates using scientific representations ST2-1WS-S
- compares features and characteristics of living and non-living things ST2-4LW-S.

Content

Survival of living things

Students describe how living things depend on each other and the environment to survive (ACSSU073, SysT), for example:

- bees and flowers
- birds eat and disperse seeds.

Stage 5 geography and science – how can environments be sustainably managed?

As a stimulus, view the dune photograph (within the 'Conservation' tab) showing various management strategies used to restore a coastal dune ecosystem. Note the accompanying list of 'current management issues' for coastal dunes in the Illawarra region of NSW.

Using a jigsaw strategy, students use NSW ecosystems on show to consider a selection of the available ecosystems, determining their significance and identifying conservation issues and management strategies. Students discuss similarities and differences in threats and approaches to conservation of ecosystems.

For one or more selected ecosystems, students summarise their information in a table that lists specific threats and management strategies. Students discuss the immediate and broader impacts of the listed management strategies.

Students undertake fieldwork in an ecosystem, organised through one of the department's environmental education centres or planned independently by the school. Students:

- collect abiotic and biotic data to assess the health of the ecosystem
- identify threats and issues
- record current management strategies.

Following this fieldwork, students use holistic thinking to analyse impacts of management strategies on relationships within the ecosystem and interconnections regionally. Students construct a causal loop diagram that illustrates the impacts of these management strategies. Causal loop diagrams illustrate interconnections and interrelationships and the holistic nature of an ecosystem. Animated diagrams can be created using Loopy , an online tool for systems thinking.

Students consider ways in which they can take individual or collective action to contribute towards ecosystem conservation.

Environmental change and management

A student:

- assesses management strategies for places and environments for their sustainability GE5-5
- acquires and processes geographical information by selecting and using appropriate and relevant geographical tools for inquiry GE5-7
- communicates geographical information to a range of audiences using a variety of strategies GE5-8.

Content

Environmental management

Students investigate environmental management, including different worldviews and the management approaches of Aboriginal and Torres Strait Islander Peoples (ACHGK071, ACHGK072), for example discussion of varying environmental management approaches and perspectives.

Living world

A student:

- processes, analyses and evaluates data from first-hand investigations and secondary sources to develop evidence-based arguments and conclusions SC5-7WS
- analyses interactions between components and processes within biological systems SC5-14LW.

Content

LW2 Conserving and maintaining the quality and sustainability of the environment requires scientific understanding of interactions within, the cycling of matter and the flow of energy through ecosystems.

f. Students evaluate some examples in ecosystems of strategies used to balance conserving, protecting and maintaining the quality and sustainability of the environment with human activities and needs.

Experimenting

Stage 2

Students follow the sustainability action process to improve or enhance biodiversity in an area of the school grounds or local area with a focus on interconnections and relationships between species. Habitat improvement projects could include creating small bird habitat using ground covers and native flowering shrubs, building 'insect hotels', or creating 'lizard lounges' by adding rocks, fallen logs and ground covers to native gardens.

The grassy woodland 'Conservation' tab lists suggestions for students to help protect remaining areas of biodiversity.

Stage 5

Using the sustainability action process, students use design thinking and systems thinking to investigate and propose solutions to a local environmental management issue that threatens a local ecosystem, ideally within the school grounds or surrounding area. Informed by their fieldwork and research, students undertake actions that restore or protect the ecosystem and work towards achieving environmental sustainability. Potential actions could include bush regeneration, restorative planting, fencing, signage or a stormwater filtration system.

References and further reading

Carnavas, P. (2010). *Last tree in the city*. Frenchs Forest, NSW: New Frontier.

Case, N. (n.d.). Loopy .

Cleave, R. & Tulloch, C. (2015). *Phasmid: Saving the Lord Howe Island stick insect*. Clayton South, Vic: CSIRO.

Crew, G. & Warden, G. (2008). *Cat on the island*. Pymble, NSW: Angus & Robertson.

Freeman, P. & Anelli, L. (2016). *Desert lake: The story of Kati Thanda – Lake Eyre*. Newtown, NSW: Walker Books Australia.

Geography K-10 Syllabus © NSW Education Standards Authority (NESA) for and on behalf of the Crown in right of the State of New South Wales, 2015.

Google. (2018). Google My Maps .

Lester, A. & Tulloch, C. (2011). *One small island: the story of Macquarie Island*. Melbourne, Vic: Viking.

Millard, G. & White, A. (2009). *Mbobo tree*. Lindfield, NSW: Scholastic.

NSW Department of Education. (2016). Sustainability action process: Biodiversity. Years 3-6 .

NSW Department of Education. (2016). Sustainability action process: Biodiversity. Years 7-10 .

NSW Department of Education. (2018). Biodiversity.

NSW Department of Education. (2018). Environmental and zoo education centres.

NSW Department of Education. (2018). NSW ecosystems on show.

NSW Department of Education. (2018). Sustainability action process.

Ramage, J. & Hickman, E. (2008). *Tuart dwellers*. Bentley, WA: Department of Environment and Conservation.

Science and Technology K-6 Syllabus © NSW Education Standards Authority (NESA) for and on behalf of the Crown in right of the State of New South Wales, 2017.

Science K-10 Syllabus © NSW Education Standards Authority (NESA) for and on behalf of the Crown in right of the State of New South Wales, 2012.

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SPaRK - Sticky

How do people change the natural environment in Australia?

By Gaye Braiding - teacher at Epping North Public School, Field of Mars Environmental Education Centre, and NSW Schoolhouse Museum of Public Education.

SPaRK overview

An Australian curriculum Shared Practice and Resource Kit (SPaRK) for Geography and Science and Technology Stage 3, Years 5-6.

Resource: 'Sticky' [videorecording 19 mins 51 secs available at https://vimeo.com/76647062] by Jilli Rose, NSW, 2013.

Educational significance

Review

What a story! This complex 20 minute animated documentary commences with five minutes of powerful wordless imagery that explains the biodiversity value, demise and extinction of the Lord Howe Island stick insect. Strong symbolic images, a haunting musical score and strategic use of silence work together to cleverly portray the temporal human impacts and their effects on this nocturnal invertebrate species. In the remainder of the video, a personable recount explains the scientific rescue mission and captive breeding program of the stick insects found clinging beneath a single bush on Balls Pyramid, demonstrating the use of scientific knowledge to protect the species. Through mention of a potential rat eradication program, the viewer is left with hope for the future.

Geography K-10

Outcomes:

A student:

- explains interactions and connections between people, places and environments GE3-2
- compares and contrasts influences on the management of places and environments GE3-3

- acquires, processes and communicates geographical information using geographical tools for inquiry GE3-4 .

Content:

Factors that change environments:

- Students investigate the ways people change the natural environment in Australia and another country (ACHGK026, ACHGK027)

Humans shape places:

- Students investigate how people influence places (ACHGK029).

Science K-10 (SciTech K-6)

Outcomes: Living world

A student describes how structural features and other adaptations of living things help them to survive in their environment ST3-10LW

Content:

Living things have structural features and adaptations that help them to survive in their environment (ACSSU043).

Teaching activities

Generate inquiry questions using Lord Howe Island as a case study to investigate human changes to natural environments

- Locate Lord Howe Island and other Australian islands on a map. For example, Norfolk Island and Macquarie Island
- Zoom in on a satellite image of Lord Howe Island. Create a précis map overlay to show the vegetation cover and main land uses.
- Examine contemporary photographs of Lord Howe Island. Create a photo sketch, labelling the human and natural features. For example, the view to Transit Hill
- Using screenshots or sketches, create a visual timeline of human impacts on Lord Howe Island that led to the extinction of the Lord Howe Island stick insect. Include the rescue mission and captive breeding program
- Create a scientific drawing of the Lord Howe Island stick insect. Label physical adaptations and describe behavioural adaptations
- Create a food chain or food web incorporating the Lord Howe Island stick insect. Explain the effects of the loss of the stick insect from the food chain

- Create a cause and effect chart that identifies the past and present human impacts and their effects on Lord Howe Island's endemic flora and fauna
- Compare the video 'Sticky ' to the hybrid text 'One Small Island'. Identify similarities between the texts. For example, the fluorescent green swathe that appears in both, intertextual uses of historic sources
- Create a Venn diagram of the similarities and differences between the story of Sticky and the story of Macquarie Island
- Generate a mind map of management strategies in place for the Lord Howe Island stick insect
- Compose a persuasive text to persuade Lord Howe Island environmental managers to undertake strategies to enable the reintroduction of the Lord Howe Island stick insect
- In an imagined future, create an animation or documentary that describes the reintroduction to the wild of the Lord Howe Island stick insect.

Resources

Cat on the Island by Gary Crew and Gillian Warden

'Cat on the Island' teaching notes , Harper Collins Publishers

Lord Howe Island , Lord Howe Island Tourism Association

Lord Howe Island – Just Paradise , Destination NSW

Lord Howe Island Stick Insect , Zoos Victoria

One Small Island by Alison Lester and Coral Tulloch

'One Small Island' teaching notes, Puffin

Phasmids by Elizabeth Shenstone and Steven Papp (ebook)

Save One Island, Save Them All , English for the Australian Curriculum.

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SPaRK – United Nations Sustainable Development Goals project

<u>Leonie McIlvenny</u> shares some insights into how to use the UN Sustainable Development Goals to deliver a fully integrated inquiry and problem-based learning program.

Resource overview

Based on the United Nations Sustainable Development Goals,this <u>website</u> provides an authentic context to deliver a fully integrated inquiry and problem-based learning program. The project is also designed to support the Global Goals Challenge and the UNESCO Global Education First initiatives. In addition to an extensive collection of resources that relate to the UN Sustainable Development Goals, there is also a 'Digital passport challenge', designed to encourage students to explore the Goals at a deep level using a range of technology tools. The program can be adapted to support students in Years 5-12.

<u>The United Nations Sustainable Development Goals project</u>

Educational significance

Not only are the United Nations Sustainable Development Goals a worldwide initiative to address 17 challenges facing the world today, they also provide an excellent opportunity for students to engage in, and take action about, real-world problems occurring not only in other places around the world but in their own communities. Global education initiatives and programs, as well as rich authentic resources give educators an opportunity to engage in innovative pedagogical approaches to learning, including inquiry and problem-based learning, and global

collaboration. The Goals provide an authentic context in which to address learning outcomes across multiple learning areas and general capabilities.

Suggestions for using this resource

There are multiple ways that this resource can be used by students and teachers.

Students can:

- access the carefully curated resources that support each of the UN Sustainable Development Goals (SDGs) to research. (See the Life below water example).
- use provided key words and focus questions for each goal to springboard an inquiry or investigation. (See the Life on land example).
- engage in the 10 Challenges . For example, Challenge five requires students to source Creative Commons images that reflect their chosen goal and place in a photo montage or slideshow on their website or blog.
- explore a digital tool. For example, Challenge three requires students to develop a vocabulary / key word list related to a UN goal and use a word cloud developer (like Tagxedo) to create a word cloud.
- access the Challenge handbook that steps them through to Challenge 10 which is the culmination of the project.
- gain extensive information from websites , articles, reports, documents and videos to inform them of the current world situation as it relates to the Goals.
- develop skills when using a range of technology tools, such as Interactive images , to explore the goals and complete the challenges.

EarthAgain, in UN Sustainable Development Goals | Life below water (14)
https://youtu.be/pBn8ZCQvFoo *', (1:18) talks about the fourteenth of the sustainable development goals, which is all about supporting life below water and keeping water sources clean.*

Teachers can:

- encourage students to undertake research tasks around understanding one or more of the UN Goals. The inquiry learning and problem-based learning sections provide support in this area.

- access one or more of the <u>global programs or projects</u> listed on the website. For example, on the <u>iearn.org</u> website, groups might participate in the <u>One day in the life</u> project that currently has 68 countries involved where students exchange photographs/images describing days in their lives, and then make cross-cultural comparisons.
- use the outcomes and activities listed for each goal to engage in classroom activities that they devise. For example, for the <u>Clean water and sanitation</u> goal, one of the activities is to 'Calculate one's own water footprint (WF)'.
- target a viewing activity from the extensive range of <u>videos</u> – students answer teacher-generated questions or students develop one question each and combine them to make a class set of questions.
- adopt or modify <u>project ideas</u> that are provided in the <u>Curriculum and pedagogy</u> section.

Teaching activities

Teachers can become better informed about the <u>UN Sustainable Development Goals</u> (SDG) by interrogating the links, videos, reports and presentations supplied for each of the goals. They may then adopt one of the <u>project ideas</u> provided for their class, for example, 'One day in the life'.

Focus on interconnections

'<u>One day in the life</u>' is a project in which students exchange photographs/images describing days in their lives, and then make cross-cultural comparisons. Students may discuss aspects of a typical day or they may document special days and promote global communication through online forums.

The project would be part of a case study of **one place** in the world. Students use the geographical inquiry process to show the recreational, cultural and/or leisure activities found there. Describe the impact of personal connections on the place now, and predict they will be in future by researching:

- How are people and places connected?
- What role does technology play in connecting people to people in other places?
- What are the consequences of a globally connected world for people and places?
- Why are interconnections important for the future of places and environments?

Report case study findings in a digital poster.

Syllabus links

Geography Stage 4

A student:

- Describes processes and influences that form and transform places and environments GE4-2.
- Explains how interactions and connections between people, places and environments result in change GE4-3.
- Acquires and processes geographical information by selecting and using geographical tools for inquiry GE4-7.
- Communicates geographical information using a variety of strategies GE4-8 (ACHGK065, ACHGK069).

Focus on STEM

SDG Assessment – Students conduct an inventory on what their school is already doing on the 17 SDG themes in education and operations. The results can be shared via social media or an interactive website and feed into other STEM projects, such as, Ambarvale High School – Improving our school (IoS.1).

Syllabus links

Science Stage 4
A student:

- identifies questions and problems that can be tested or researched and makes predictions based on scientific knowledge SC4-4WS

- selects and uses appropriate strategies, understanding and skills to produce creative and plausible solutions to identified problems SC4-8WS

TAS Stage 4
A student:

- applies design processes that respond to needs and opportunities in each design project 4.1.1
- generates and communicates creative design ideas and solutions 4.2.1
- selects, analyses, presents and applies research and experimentation from a variety of sources 4.2.2.

Mathematics Stage 4
A student:

- collects, represents and interprets single sets of data, using appropriate statistical displays MA4-19SP.

Experimenting

The purpose of the website is to encourage students to think creatively and ideate and innovate ideas on how to help achieve the UN Sustainable Development Goals. It encourages students to 'think outside the box' and perhaps devise solutions to problems that affect their immediate community or environment. The resources provided on the website are merely a catalyst to exploring real problems in a global context.

The United Nations video What is sustainable development?'
https://youtu.be/3WODX8fyRHA (2:08), explains the sustainable development global goals.

As students undertake the ten challenges, they are required to build a website or blog and embed various digital elements into it. For example, videos, image galleries, word clouds, interactive images and blog posts. This could be expanded to allow students to experiment with digital tools like interactive timelines , animation tools and avatars to create information products that could be showcased on their websites.

The final challenge has the following scenario:
'If you were given five million dollars to help achieve one of the UN development goals what would you do? In which country would you do it? and Why in that country?'

This challenge could be modified to address a local issue in the immediate community in which your students live. The project planning guide is editable and can be modified as required to suit your local context.

Syllabus links

The SDG challenges have applications across curriculum, with relevance to subjects such as science, mathematics, geography, TAS and visual arts, and the cross-curriculum priority of sustainability. They also have direct links to the <u>general capabilities</u> from the Australian Curriculum, including critical and creative thinking, ethical understanding, and information and communication technology capability.

References and further reading

Ambarable High School – Improving our schools (IoS.1). *STEM: Science Technology Engineering Maths*. © State of New South Wales (Department of Education), 2017.

Global SchoolNet. (2019). <u>GlobalSchoolNet.org: Linking kids around the world</u>.

International Education and Resource Network. (n.d.). <u>iEARN projects align to the UN Sustainable Development Goals.</u>

International Education and Resource Network. (n.d.). <u>One day in the life</u>.

McIlvenny, L. (n.d.). <u>The United Nations Sustainable Development Goals project</u>.

UNESCO. (2016). Global education first initiative.

United Nations. (2015). <u>What is sustainable development?</u>