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In this Issue

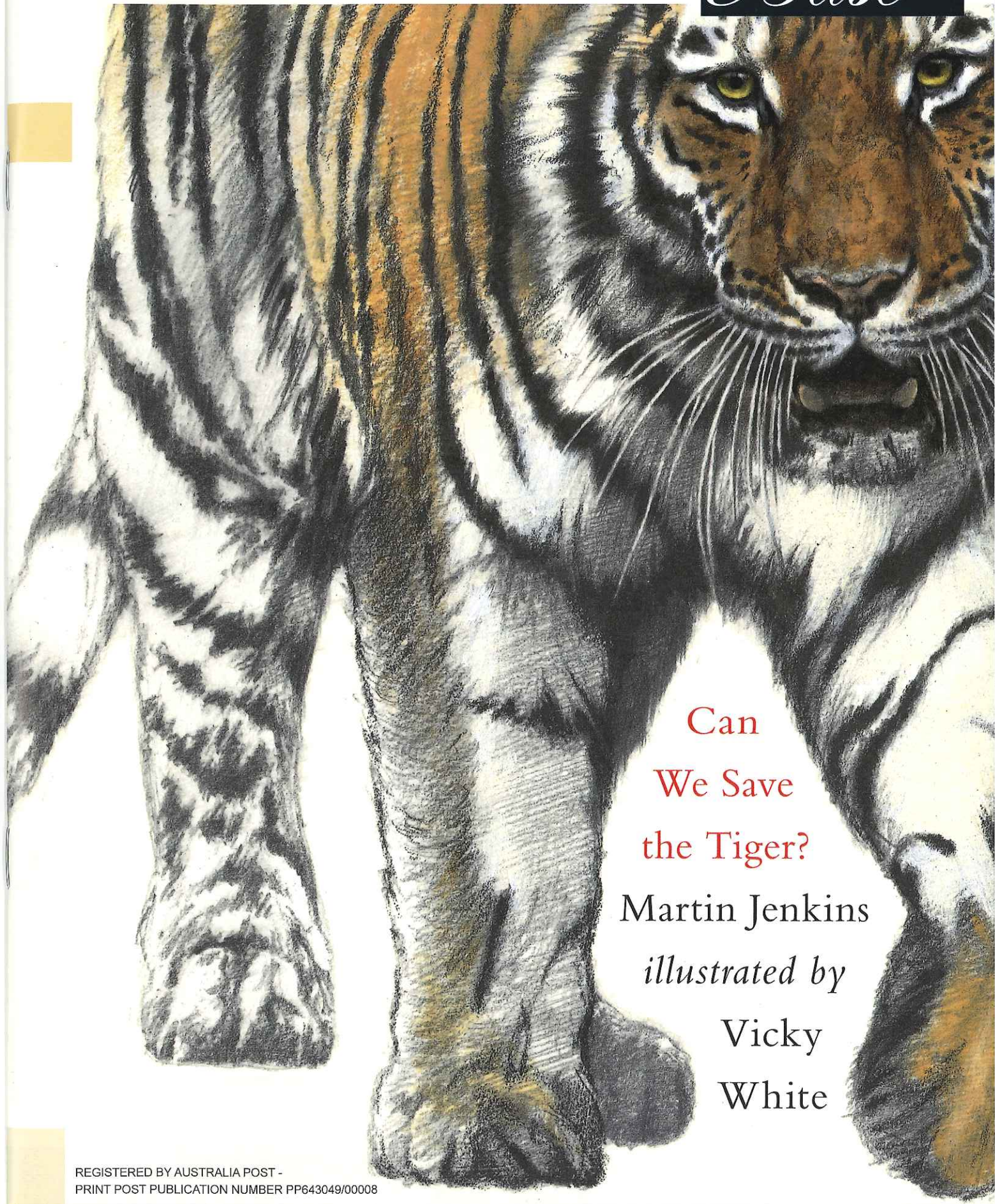
Science Fiction in the Classroom

CBCA Book Week Theme: One World, Many Stories

Alpha Beta: the Written Word

UN Year of the Forests

The Literature Base



Can
We Save
the Tiger?

Martin Jenkins

illustrated by

Vicky

White

Laws of Science

SCIENCE FICTION IN THE CLASSROOM

by Michael Janssen-Gibson

In his book **A Pictorial History of Science Fiction**, David Kyle (1986, p.10) suggests that science fiction is:

optimistically inspiring or pessimistically frightening, entertaining both the rational and irrational mind and spirit of man, pointing to the future or, sometimes, explaining the past.

Like the opening lines of Charles Dickens **A Tale of Two Cities**, Kyle paints a picture of extremes when defining science fiction. It seems an apt description of this genre, as fiction that pushes the boundaries of science and imagination, while simultaneously developing a picture of humanity.

Moskowitz (1966) states that *the further we travel, the closer we come to understanding ourselves, whether it be in our reactions and interactions to other life forms, the place of religion in the universe, or even the moral, social and environmental implications of technology development, or even human population growth.*

Science fiction derives its motivation from the sources that inspire all tales of the marvellous, all stories that refuse to be limited by what is possible in everyday life. Science fiction is fantasy, yet governed by the rules of science — as a consequence you can readily explore the themes and concepts central to science fiction stories through art, science and SOSE. I have highlighted a number of common themes below, including a brief contextual description, books of relevance and lesson ideas.

References:

- Ash, Brian, ed., (1977) **A Visual Encyclopedia of Science Fiction**, N.Y., Harmony.
Kyle, David (1986) **A Pictorial History of Science Fiction**, Lond., Tiger International.
Rottensteiner, Franz (1975) **The Science Fiction Book; an illustrated history**, Lond., Thames & Hudson.

Have Space-Suit, Will Travel

Much of science fiction is based in space, or involves space travel. By this very nature the stories are generally set in the future.

Space travel is the exploration of the unknown, and colonisation of other worlds. The development of science fiction concerned with space travel has closely followed our scientific discovery of our solar system and beyond. Not dissimilar to the **Age of Exploration** in our own history, there are many parallels that can be drawn between space travel and the discovery of new land.

Depending on the age of the students, you can also explore the effect of settlers on indigenous populations, such as Australian Aborigines.

Suggested Books:

Space Scout: The Big Freeze (2010) *H. Badger*, Hardie Grant Egmont, 978 1 92156 483 3 Pb

First in a series of exciting, simple space adventures encountering different species. Large type, well leaded, with black and white illustrations. Primary

Star Navigator (1997) *Allan Baillie*, ill. *Wayne Harris*, ABC Books, 978 0 7333 0827 7 Picture book Pb O.P.

Set in the future, a young boy embarks on a rescue mission with his alien crew. Makes great use of perspective in illustrations to create a sense of outer space without gravity. Primary

Deucalion and The View from Ararat, *Brian Caswell*, UQP, O.P.

Explores colonisation of a new planet, and the moral and ethical issues related to the indigenous species. Secondary

Dogstar (2007) *Philip Dalkin*, Puffin, O.P.

A humorous tale of all life having to leave Earth; the space ship carrying all dogs goes adrift and a rescue needs to be mounted. From a TV script co-written with Doug MacLeod. See www.dogstar.tv Primary-Lower Secondary

George's Secret Key to the Universe (2007) *Lucy and Stephen Hawking*, Doubleday, 978 0 385 61270 8 Pb

George's Cosmic Treasure Hunt, *Corgi*, 978 0 552 55961 4 Pb

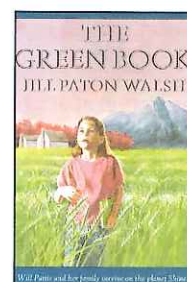
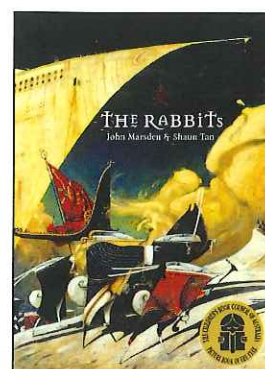
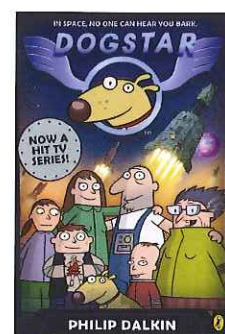
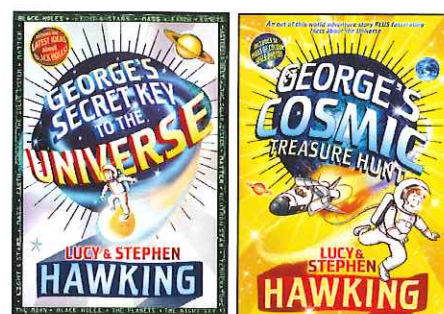
The daughter of a scientist takes her friend, George, with the aid of the computer Cosmos, on tours of the universe. Many embedded scientific facts about the universe together with colour photographs. Upper Primary-Lower Secondary

The Rabbits (1998) *John Marsden*, ill. *Shaun Tan*, Lothian Children's Books, 978 0 7344 1083 2 Picture book Pb

Tan's imagery provides a wonderfully cold and scientific counterpoint to the heartfelt tragedy of the Indigenous species. Upper Primary +

The Green Book (1986) *Jill Paton Walsh*, Farrar, Straus & Giroux, Sunburst Books, 978 0 374 42802 0 Pb

Another settlement story still in print as an import from the US. Earth has to be evacuated and a new colony is established on Shine; but the vegetation is alien and it appears as if the colony will die of starvation. Middle-Upper Primary



Activities

Evolution of Lifeforms

Aim: Given a series of environmental conditions, students create a viable life-form.

Read:

- Using a series of appropriate images from movies and the media, identify and discuss the characteristics of aliens depicted. Brainstorm some common features, and group them into categories, for example, 'humanoid', 'insectoid' etc.
- Using the planets in our solar system, assign each planet an ecology and atmospheric conditions.
- Students are required to design an appropriate life form that could survive on the planet, rationalising their choices in the form of a labelled diagram.

Extension:

Students can conduct the research to determine the environmental conditions of each planet. Alternatively, students can create their own planet and environment before designing a suitable life-form.

NB: Check out Kevin Steinberger's piece on **Exploring Space** Vol. 18 No. 2 May 2007 issue of *The Literature Base* for further information/inspiration.

Discovery & Exploration

Aim: to debate the issues surrounding exploration and settlement, particularly in relation to indigenous populations.

Read:

- The Rabbits** by John Marsden, or parts of **Deucalion** by Brian Caswell.
- Read some recounts of the first encounters between Indigenous Australians and explorers/settlers. Fictional works such as **Captain Cook's Apprentice** by Anthony Hill (Penguin, 978 0 14 300482 0 Pb), and **The Goat who Sailed the World** by Jackie French (Angus & Robertson, 978 0 207 20077 7 Pb) provide an emotionally accessible option to share with students.
- As a class, brainstorm the two sides of the argument, one for the Indigenous population and one for the importance of exploration and settlement.
- Class divides in half, each side researches their case. Each student is required to produce at least one point, which can be collated as a group. Students can either select representatives to speak on behalf of the team, or can opt for a more democratic approach.

Text-Type Analysis - Fact within Fiction

Aim – Analysing the effectiveness of embedding facts within a fictional story.

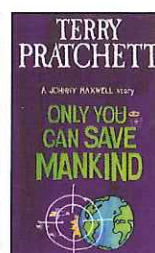
Read excerpts of **George's Secret Key to the Universe** by Stephen and Lucy Hawking.

Students can answer questions such as:

- Does the story help maintain the reader's interest?
- Does the story make it harder to understand the facts?
- Is the author an expert? Should you believe everything you read? (Author reputation can also be explored if appropriate)

They Came from Outer Space

Alien encounters seem to be full of misunderstandings, whether they are visiting Earth or we travelled to them. It is an interesting reflection of the human psyche that these meetings are rarely free of disaster, whether we are the victims of conquest or mistrustfully abuse the gifts of a more advanced race.



Suggested Books

The Tripods Trilogy Book 1: The White Mountains (1967)

John Christopher, Simon Pulse, 978 0 689 85672 3 Pb
Aliens have already conquered Earth, and humans have lost much knowledge of their past, particularly in relation to technology.

Upper Primary–Lower Secondary

Boom! (2009) Mark Haddon, David Fickling Books, 978 1 84992 013 1 Pb

Joe discovers that two of his teachers are aliens, and when his friend disappears after pushing the teachers too hard, Joe and his big sister set off to find him.

Middle–Upper Primary

Only You Can Save Mankind (1992) Terry Pratchett, Corgi, 978 0 552 55103 8 Pb

The first book in the Johnny Maxwell series, where a video game universe may hold the key to saving an entire species.

Upper Primary–Lower Secondary

Beyond the Labyrinth (1988) Gillian Rubinstein, Puffin O.P.

A book of observations and observers involving an alien

anthropologist and a young boy, this story cleverly plays with a 'Choose your own adventure' style of writing that actively involves the reader.

Upper Primary–Lower Secondary

Ormingat Book One: Space Race (2000) *Sylvia Waugh*, Red Fox, 978 0 09 940443 9 Pb

A boy and his father are aliens, living in rural England and observing the 'locals'. The story details the adventures of the two when they are accidentally separated enroute to the spaceship, but also highlights the human experience as viewed by outsiders. First of a trilogy.

Upper Primary–Lower Secondary

Activities

Choose your own adventure

Aim – stories are full of decisions, at any point a story can divert in any number of possible directions

- Read the first chapter of **The White Mountains** without any introduction, displaying of the cover/title etc.
- Have students guess what is happening in the story at various points along the way, based on the information that is slowly fed to them through the narrative.
- Stop at a suitable point and brainstorm possible outcomes and scenarios. Dividing into groups of 3–4, students create two choices in action for the reader, and then write a continuation of the story of their own devising. Paths can end, or lead to another two choices. Extend this activity as long as you wish.

Radio Play (The radio drama **The War of the Worlds** created a panic when first broadcast in 1938. Many listeners thought they were hearing a real news bulletin about an alien invasion.)

Aim: dramatise a piece of science fiction.

- Play an excerpt of the broadcast to the students and elicit reactions/opinions.
- Analyse the radio play for its components – sound effects, character voices, importance of dialogue etc.
- Using a simple text such as **Star Navigator** by Allan Baillie, students work in small groups to create a series of scenes for the play.
- Extension: if feeling particularly adventurous, you can black out the windows to create a space of darkness and deliver the play live to an audience. Other non-visual elements can be introduced, such as touch and smell.

Text-Type Analysis - Interview

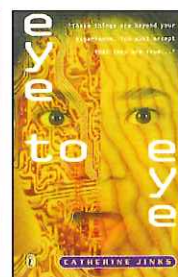
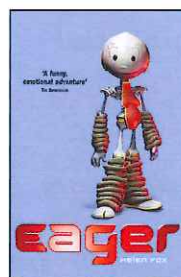
Aim – Design a series of questions and answers for an alien interview.

- As a class, students brainstorm a series of questions they would ask an alien, and then individually or in pairs devise answers to the questions.

I, Robot

Of course, another staple of the genre is the robot: servant, friend, master—it is a complex relationship of moving from creating tools that make our life easier, to creating 'life' or Artificial Intelligence, to that same intelligence deciding to turn on us. Asimov wrote of the original 'three laws of robotics', designed to govern the relationship between humans and robots.

1. A robot may not injure a human being or, through inaction, allow a human being to come to harm.
2. A robot must obey any orders given to it by human beings, except where such orders would conflict with the First Law.
3. A robot must protect its own existence as long as such protection does not conflict with the First or Second Law.



Suggested Books

Eye to Eye (1997) *Catherine Jinks*, Puffin O.P.

A primitive young man comes into contact with a crashed spaceship, containing an intelligent computer capable of learning.

Upper Primary–Lower Secondary

Eager (2003) *Helen Fox*, Hodder Children's Books, 320pp. 978 0 340 90256 1 Pb

An experimental robot, capable of learning, is placed with a family as an experiment.

Upper Primary–Lower Secondary

The Boy and the Toy (2010) *Sonya Hartnett*, Viking, 36pp. 978 0 670 07362 7 Hb picture book.

A father builds his son the perfect toy as a companion, though the toy proves to be unsettlingly obsessive.

Activity

Technology in our lives

Aim: to become aware of the role technology plays in our lives.

- Students list the various technologies in their house and all the activities that can be completed by a computer.

- As a starting point for a creative story-writing exercise, students are to write a narrative based on the idea that all machines of the world suddenly stop working.

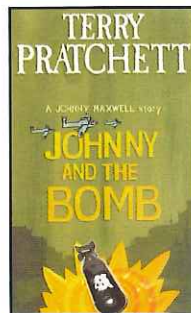
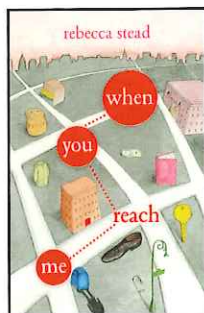
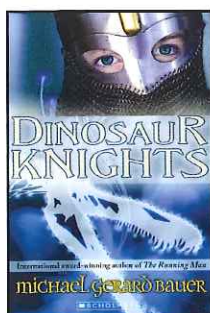
Text-Type Analysis - Procedure

Aim: Create a procedural text for describing simple activities such as brushing your teeth, or making toast.

- Students can start in pairs, with one student instructing the other to complete a task. The instruction-receiver is only allowed to follow the instructions exactly (such as a robot might follow), requiring the instructor to be very specific (it may help to have the teacher demonstrate being a 'robot', while students take turns giving the instructions).
- After successfully directing their 'robots', students write their instructions as a procedural text and swap with another pair to test.

The Time Machine

H.G. Wells is often credited as the father of modern science fiction, and certainly his book **The Time Machine** was the first to explore time travel in such a way. Time travel has long been of interest to writers, particularly the future—how will the human race fare, what is going to happen? The idea of getting a sneak peak of what is to come is full of possibility. Visiting the past however seems to focus on correcting mistakes, and is fraught with the concept that any change made in the past will drastically affect the future.



Suggested Books

Dinosaur Knights (2009) *Michael Gerard Bauer*, Omnibus Books, 978 1 86291 795 8 Pb

In the 21st century a scientist plans to pull a dinosaur from prehistoric times into his specifically designed hi-tech laboratory. There is a glitch and it arrives in the Middle Ages. Middle Primary–Lower Secondary

Future Trap (1993) *Catherine Jinks*, Omnibus Books O.P. A girl is transported to the future, and learns a secret about the future of Earth. Lower Secondary

Rocco (1990) *Sherryl Jordan*, Scholastic NZ, 978 1 86943 584 4 Pb

A boy somehow travels to a more primitive time in human history in his dreams, and discovers a simpler way of life that is more fulfilling, though all is not as it seems. Upper Primary–Lower Secondary

Johnny and the Bomb (1996) *Terry Pratchett*, Corgi, 978 0 552 55413 8 Pb

Once again Johnny is at the centre of events that could change history—or is it the future? A clever and very funny time-travel adventure. Upper Primary–Lower Secondary

When You Reach Me (2009) *Rebecca Stead*, Text Books, 978 1 921656 06 4 Pb

A story in which time plays an important part. Miranda is trying to figure out the possibility of time travel as depicted in her favourite book, Madeline L'Engle's **A Wrinkle in Time**, while at the same time notes start appearing in her family's apartment which correctly foretell the future. Then there's the mystery of the running streaker ... Upper Primary–Lower Secondary

Patternmaker (1994) *Lucy Sussex*, ed. Omnibus Books O.P. A collection of 9 science fiction stories by Australian authors. Lower Secondary

Activity: Future classroom

Aim – science fiction has always predicted the direction and shape of technological developments. What will our future classroom look like?

- Students interview their parents on what a typical school day included. Students survey the types of books and materials their parents' used, the technology (if any) in the classroom, and the types of lessons.
- As a class the students compare what they have now with their parents' experience. Look for common features and differences. Discuss the reasons behind both of these.
- Thinking ahead, the students design a classroom of the future (say, in 20-30 years). Students need to explore lesson types, technology etc and draw a picture of the classroom, as well as provide a timetable for an average day.

Extension:

Ask students to predict what jobs will not exist in the future, as well as which jobs will need to be created. Create some environmental situations for the future that the students must work within—for example, rising water levels, pollution.

Fashion

Aim: Tracing changes in style through time using fashion.

Students watch an excerpt from the original film *The Time Machine*.

Students create a timeline of fashion over the last 100 years, noting important changes, including what comes in and out of style.

Students predict the future of fashion, based on a combination of artistic license and practical considerations and on factors such as the environment.

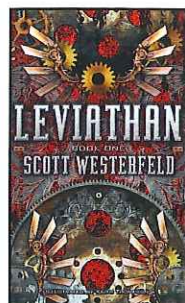
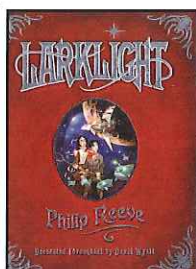
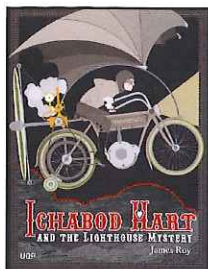
Text-Type Analysis - Letter

Aim: Write a letter to yourself in the past.

- Discuss as a class what sorts of things you could and should not tell your past self. Identify some of the potential consequences of telling your past self what to expect in the future.

Steam Punk

A relatively new sub-genre of science fiction has enjoyed an increase in popularity of late, namely Steam Punk. Steam Punk is a mixture of the past and future, where either certain technologies are discovered earlier in human history, or future generations return to fashion and values of a previous era—often the Victorian Era.



Books

Ichabod Hart and the Lighthouse Mystery (2004)

James Roy, UQP 978 0 7022 3364 7 Pb

Set in a parallel 1901 where Australia is half-French, half-English and a greedy industrialist plans to rule the world through stealing new inventions.

Upper Primary–Lower Secondary

Larklight (2006) 978 0 7475 8440 7 Pb

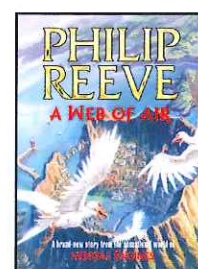
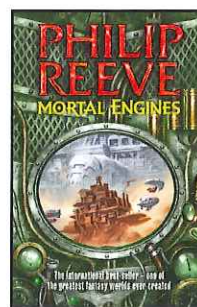
Starcross (2007) 978 0 7475 8912 9 Pb

Mothstorm (2008) 978 0 7475 9416 1 Pb

Philip Reeve, Bloomsbury Pb

Sir Isaac Newton's discoveries in the early 1700s allowed the conquering of space travel. This excellent adventure series is full of wit and satire of the British Empire.

Upper Primary–Lower Secondary



Leviathan (2009) 978 0 14 320608 8 Pb

Behemoth (2010) 978 0 14 356559 8 Hb

Scott Westerfeld, Penguin Pb

England discovers genetic technology through Darwin's Theory of Evolution and uses that to power the most extraordinary airships: Germany has gone the way of mechanics producing machines that walk like creatures—between them they create a very different scenario for the run-up to WWI.

Upper Primary–Lower Secondary

The Laws of Magic series, Michael Pryor, Random House Pb

Book 1: **Blaze of Glory** (2006) 978 1 86471 862 1

Book 2: **Heart of Gold** (2007) 978 1 86471 863 8

Book 3: **Word of Honour** (2008) 978 1 86471 864 5

Book 4: **Time of Trial** (2009) 978 1 86471 865 2

Book 5: **Moment of Truth** (2010) 978 1 74166 309 9

Book 6: **Hour of Need** (2011) 978 1 74166 310 5

Magical steampunk set in the last years of 19th century England. Magic is a science in Albion, studied along with developments in more everyday technologies like electricity and steam engines, and Albion needs all the magic it can get to overcome the aggressive country of Holmland.

Girl Genius, Kaja and Phil Foglio,

Omnibus edition, Studio Foglio, 978 1 89085 640 3

A web and print comic following the career of Agatha Heterodyne at the Transylvania Polygnostic University – sometimes referred to as 'gaslamp fantasy'

<http://www.girlgeniusonline.com/>

Mortal Engines (2001) 978 0 439 97943 6 Pb

Predators Gold (2003) 978 1 40711092 9 Pb

Infernal Devices (2005) 978 1 40711093 6 Pb

A Darkling Plain (2006) 978 1 40711094 3 Pb

Philip Reeve, Scholastic UK

Set in an alternative future, where people live on mobile cities cobbled together from technology left by previous generations, this series explores a possible future of human-kind.

Mature Upper Primary–Lower Secondary

And

The prequels to *The Mortal Engines* quartet for a slightly younger audience, though most fans will read all of the series.

Fever Crumb (2009) 978 1 407 102436 Pb

A Web of Air (2010) 978 1 407 117591 Pb

Scrivener's Moon (2011) 978 1 407 115214 Hb (due soon)