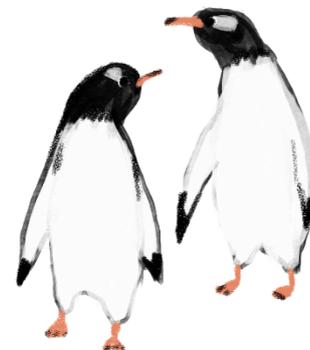


Teaching the Language of Climate Change Science



TEXT ANALYSES: CHAPTER 4 FOUNDATION

Teachers of Foundation students: the text analyses provided here are *not* intended for you to explicitly teach in the class. We've included them so that you can see that the language we've chosen for texts is intentional and carefully selected: to gradually apprentice students into the world and language of science.

Focus text: How living things look after each other (p34)

Structure	Text	Language resources
<p>Heading (as a question)</p> <p>Definition -tell us more</p> <p>Some examples -tell us more</p>	<p>What are living things?</p> <p>Living things on Earth are called organisms.</p> <p>Organisms are animals and plants. They grow, move by themselves, and have babies (reproduce).</p> <p>Flies, bees and ants are living things. They are insects. Most adult insects have three-part bodies, wings and six legs.</p>	<p>New technical term 'organisms' powered down to 'animals and plants'.</p> <p>Use of pronoun 'they' in second sentence connects it to the first, making the para 'stick together' (cohesion).</p> <p>'Most' is qualifies 'adult insects' so that the info is true (modality). Technical and compressed noun groups: 'three-part bodies, wings and six legs'. Scientific writing is dense: no unnecessary words.</p>
<p>Heading (as a question)</p> <p>List of needs</p> <p>Specific example</p>	<p>What are the needs of living things?</p> <p>To survive and thrive, living things have four needs. They need air, food, water, and shelter. Insects need these things too.</p>	<p>Question as heading is simple way to show that the heading and the para to follow belong together: question and answer.</p> <p>'To' clause at front of sentence foregrounds the most important info. Also a complex sentence.</p> <p>'These things' refers back to 'air, water...': needs to be explained.</p>
<p>Heading (as a question)</p> <p>Need - how met</p> <p>Need - how met</p> <p>Need - how met</p> <p>Mutual help</p>	<p>How do insects have their needs met?</p> <p>To get food and water, insects visit the flowers on plants. For shelter, insects build homes in gardens. In return, insects help the flowers to make seeds. To survive and thrive, plants need insects and insects need plants.</p>	<p>Needs of insects are addressed in same order as previous para.</p> <p>In each sentence, the purpose or need is foregrounded at the front of the sentence: 'to get food...; 'For shelter...'. 'In return...' foregrounds reciprocity of the actions. Final sentence foregrounds important goal: 'to survive and thrive'.</p>

Heading (question) What might happen Human's role Ways we can help to meet specific needs	What happens when needs are not met? If the needs of insects are not met, they might die and then plants might die. We can help insects. We can give them food by planting flowers. We can put water out for them, and we can make them shelter.	Opening sentence begins with 'if' clause: clause of condition. 'Might' makes the statement true: says this is a possibility (modality). Use of 'we' in this para is intentional: students take on the role of helper. We 'can' help says helping is possible, but also our choice.
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Focus text: materials and properties (p37)

Structure	Text	Language resources
Heading (as a question) Definition and examples Series of classroom and personal examples	What are materials? All objects that we can see or feel are made of materials such as wood, glass, paper, plastic, metal and fabric. In our classroom, chairs and tables are made from plastic and metal. Books are made from paper. The windows are made from glass and wood. Our clothes are made from cotton fabric. Our jumpers are made from wool.	Use of a question as heading is a simple way to show relationship between the heading and the para to follow. Para answers the question. 'All objects that we can see or feel' contains important part of definition 'in the one noun group. Use of verbs in passive voice 'are made...' allows us to put the objects at the front of the sentence. Who did the making is omitted - not relevant. Most sentences have the same grammatical structure: [objects] are made from [materials].
Heading (as a question) Topic statement 2 sources: living things and ground Examples from living things Examples from ground	Where do materials come from? All materials come from the Earth. Some come from living things and some are dug up from the ground. Paper and wood come from trees. Cotton comes from cotton bushes. Wool comes from sheep. Plastic, glass and metal all come from the ground.	Modality: begins with 'all' from the Earth, then 'some...'. Notice that we don't repeat 'materials' each time. It is ellipsed: left out because scientific writing is dense and non-essential words are excluded.. Remaining sentences have same grammatical structure: [Materials] come from [source].
Heading Table	The properties of materials (Table to fill in)	Notice use of technical terms in the table: inflexible, durable, absorbent. (Couldn't find anything more technical than 'throw-away!').
Heading Reason and our response (respect).	How we use materials Because all materials come from living things or from the Earth, we must	Chapter heading has changed from question to statement. 'Because..' clause of reason is front of sentence: reason for use is most important.

<p>Respect elaborated -reduce -reuse</p> <p>Examples of respectful use</p>	<p>respect them and use them wisely. We don't waste them, and we try to use objects made from reusable, durable materials (i.e. not just objects that can be re-used once, but objects that will last a very long time). Some ways that we can use materials respectfully are:</p> <ul style="list-style-type: none"> • We use our own water bottles • We bring our lunch in a lunch box • We don't buy too many clothes • We recycle paper and we don't waste it • We don't break our toys 	<p>Modality: 'must' – no option of 'try to use' – more options here. 'Some ways...' suggest that the readers might think of others.</p> <p>Notice that the definition of 'durable' has been included in brackets to make sure that the audience knows what we're talking about.</p> <p>First person plural 'we' is used throughout this paragraph because it is the 'call to action' and students have to take on these actions as their own.</p>
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Focus text: what is weather? (p41)

Structure	Text	Language resources
<p>Heading (as a question)</p> <p>Definition</p> <p>Scale of changes</p> <p>Elaborations-features of weather</p>	<p>What is weather?</p> <p>Weather is what is happening in the atmosphere around us right here right now. Weather changes from place to place, and it can change from hour to hour, and day to day. When we talk about weather, we are talking about temperature, wind, clouds, and rain.</p>	<p>Definition of weather: 'weather' on one side of 'is', and expanded noun group on the other side. (Typical for definitions.)</p> <p>Repetition is a feature: 'right here, right now; hour to hour, day to day' to help memory.</p> <p>Prepositional phrases of place: right here, right now; from place to place; and time: 'from hour to hour', and 'from day to day'. Important to understand difference between weather and climate.</p> <p>Technical terms: atmosphere, temperature.</p>
<p>Heading (as a question)</p> <p>Definition</p> <p>Elaboration with local details</p> <p>Issues from climate change</p>	<p>What are seasons?</p> <p>Seasons are changes in temperature across the year. In (South Australia) there are (four) seasons: (Spring, Summer, Autumn and Winter). Our Summers are getting hotter and longer and that is difficult for some living things.</p>	<p>Another definition: 'Seasons' on one side of 'is', and expanded noun group on the other.</p> <p>Where phrase 'In...' foregrounds students' own context before elaborating on seasons. Seasons are capitalised as proper nouns.</p> <p>Final sentence uses comparatives 'hotter and longer'. 'That' is pronoun referring not to a thing but a process (getting hotter and longer'.</p>

Heading	Extreme weather	Modality 'sometimes', i.e. not always: don't want to alarm. 'Can be' says 'these are examples'.
Topic sentence introduces extreme weather	Sometimes we have extreme weather.	'Extreme' is repeated for emphasis.
Examples of extreme weather	Extreme weather can be extreme heat, extreme rain, extreme cold, or extreme wind. When the weather is extreme, we	'When' phrase of time is foregrounded at front of sentence because it's important.
Our actions in extreme weather	have to make sure we care for the needs of other living things.	Verb group 'have to make sure we care for' is pretty complicated. Take away one bit at a time and see how it changes in meaning.