

NAPLAN Proficiency Level Descriptions

Reading Year 7 - Exceeding

Example texts

Green energy: the new generation

Solar and wind power have long been the focus of green energy, but they have their detractors. Solar power operates best in areas that receive large amounts of sunshine, but the demand for artificial heat and light is often greater in cooler and cloudier areas, where the least solar power can be generated. Furthermore, wind farms sometimes arouse local opposition as they are often built in areas of great natural beauty, leading some people to say that they are a blight on the landscape and pose a threat to birdlife.

Therefore, to generate clean, renewable energy by harnessing naturally occurring resources, alternative solutions are needed.

The power of the sea

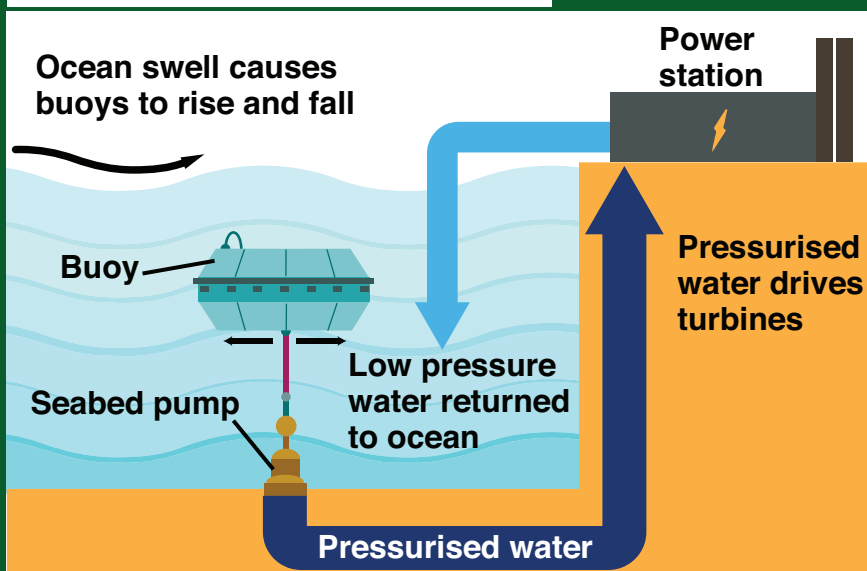
With an estimated half of the world's population living within 60 kilometres of a coastline, using wave-generated power is a particularly efficient process. Additionally, water is about 800 times denser than air, increasing the amount of energy available for harvesting.

One wave-power initiative uses fully submersible buoys tethered to the seabed. The movement of the ocean activates hydraulic cylinders inside their tanks, which pump seawater onshore through cables laid on the seabed. This water drives turbines in hydro-electric power stations to produce clean energy. The buoys have minimal impact on the appearance of the surrounding area as they are underwater, and they also act as artificial reefs, attracting marine life.

Helpful microorganisms

In cities, the focus is on energy efficiency in buildings. One apartment building, the Bio-Intelligent Quotient (BIQ) House in Hamburg, Germany, does just this. The five-storey BIQ House is the first building in the world to be powered by algae. The walls of the building that face the sun are fitted with panels filled with microphytes (microscopic algae). As well as receiving plentiful sunshine, these microphytes are supplied with water and nutrients enabling them to photosynthesise and grow. When they have reached a sufficient size, they are harvested and fermented, a process which creates biogas which can then be used to heat and power the building. The panels also provide thermal insulation and create a 'green skin' for the building.

Generation of wave power



BIQ House



Cerebrawl

Doctor Andrea Baker, neurosurgeon, spread the Saturday newspapers in an arc. She preferred the headline: 'Cerebrawl'.

Earlier in the week Andrea, concerned about the 'show' that her boss Cornell had planned for Friday, broached the subject with him.

'May I have a word?' she stood in the doorway to his momentarily unguarded office.

'Five minutes, Andrea.'

She sat down. She'd take ten if necessary.

Cornell sighed heavily, leaned back in his chair and flung his glasses on the desk. Andrea knew these practised strategies well. She would continue, knowing that Cornell's only interest was in securing investor funds, not in medical innovation. He was the used car salesperson of the medical world.

'I think your press conference is a bit premature. My procedure is untried, apart from the clinical trials on carefully selected patients. Those trials were restricted but I believe my technique will have a wider application. For this reason, I would prefer to conduct further work before going public.'

He shifted in his chair. Next he would lean towards her and possibly slam his hairy hand on the desk. Cornell leaned forward. His face, veiny, puce, nasty-looking. She continued, seemingly unfazed.

'About ownership of the technique. I expect my intellectual property to be publicly acknowledged. This work is innovative and technically superior to anything we've published in the past five years. I believe there is a moral obligation ...'

Cornell thumped his laptop closed. 'Get out!'

Come Friday, the press fired questions; the television crews vied for space. It was big news: this research would vastly improve the prognosis for patients. Cornell handled it smoothly, at first. But then one journalist asked a series of questions that were unexpectedly technical, and Cornell floundered.

Exasperated, Andrea strode up to the podium. While Cornell blustered in the background, she answered the technical questions, proudly and professionally. If he insisted on discussing her work, she wanted to do it justice. The public would be left in no doubt who had the brains in this outfit.

Andrea flipped through the newspapers to her favourite article, showcasing a crisp photo of her addressing the press at the podium with Cornell glowering in the background. Puce is such an ugly colour in print.

Nonsense rules!

‘What nonsense!’ This is an exclamation which signals that something is wrong, flawed or just plain stupid. However, in the same way that *dishonesty* draws its meaning from what we understand about *honesty*, and *untidy* requires a knowledge of *tidy*, *nonsense* and its counterpart, *sense*, are eternally bound together.

‘Nonsense’ became a prominent genre of writing in the nineteenth century, with names such as Edward Lear and Lewis Carroll leading the way. At its simplest, nonsense can involve the invention of unusual and funny-sounding words, or the placement of objects or characters in unexpected relationships. In his poem, *Jabberwocky*, Carroll used newly created words in carefully chosen places, trusting the reader’s awareness of expected grammatical structures.

‘He took his vorpal sword in hand:
Long time the manxome foe he sought’

We can tell the new words are adjectives, even if their meaning remains murky.

For Carroll, the emphasis was often on disrupting one set of established rules by introducing another, far more peculiar but often just as rigid, and it makes sense (that word again) to find that Carroll was a mathematician by profession. His interests included geometry, logic and probability—fields that relate in some way to following or testing rules.

Let’s take a look at the encounter between Alice and the Red Queen in *Through the Looking-Glass*. Alice is drawn into a relentless, breathless run with the Red Queen, but they remain clamped to the same spot. Alice declares that in her experience ‘you’d generally get to somewhere else—if you ran very fast for a long time’. The Red Queen responds: ‘Now, *here*, you see, it takes all the running *you* can do, to keep in the same place. If you want to get somewhere else, you must run at least twice as fast as that!’ You have to keep moving just to stay where you are—a rule exists, but with a twist. Carroll’s work is rich with examples of this—races, games, legal and ceremonial events provide opportunities for the rules to be reinvented in unexpected ways. Nonsense rules.



Acknowledgements

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Image of the BIQ house © imageBROKER / Alamy Stock Photo

Nonsense rules!

Extract from Through the Looking-Glass by Lewis Carroll (1832-1898), first published in 1872, out of copyright

Extract from Jabberwocky by Lewis Carroll (1832-1898), first published in 1871, out of copyright

'The White King is Picked up by Alice' Alice Through the Looking-Glass Illustration by Sir John Tenniel 1820- 1914. Image © Timewatch Images / Alamy Stock Photo