Reading Magazine
2010

Year 7

Name: **Brandon Walters**
Born: 1995
Best known for playing the character, Nullah, in the movie, *Australia*.

Did you know?

- At the age of six Brandon was very sick and spent a year in a Perth hospital.
- Before agreeing to act in *Australia*, Brandon and his family took Baz Luhrmann (the movie's director) camping at Eighty Mile Beach in Western Australia. They also went kangaroo shooting in the bush. On this trip Brandon and Baz got on so well together that Brandon decided to take the role.

TALENTED TEENS

Here are two young Australians who are taking the world by storm.

Name: **Gabriella Cilmi**
Born: 1991
Best known for the number one single, 'Sweet about Me.'

Did you know?

- When she was eight years old Gabriella was told by her music teacher that she didn't have any musical talent.
- Gabriella has had huge success in both Australia and the United Kingdom, but she only realised she had become famous when she heard her music being played in a perfume shop.

Jacob

‘All right,’ Ben said. ‘Where are we going?’

Jacob was leaning against the white fence around the garden. He lifted his stick. ‘That way,’ he said, pointing across the paddock to the trees on the other side.

‘How do you know?’ asked Ben, curious. ‘I mean, how do you know where you are?’

Jacob paused. ‘I suppose I don’t think about it mostly. Like you. I know the house is there, behind me, because I just came out of it. I know we’re standing on the track because it feels different on my feet, not like grass or the path. I know there are sheep paddocks around because I can smell them, and I know the bush starts over there because I can hear it.’

‘The birds and things?’ asked Mary.

‘Sort of,’ said Jacob. ‘I can hear the trees too. A sort of furry sound. You don’t hear the wind like that on paddocks. The smells are different too, and the way the wind feels on your skin. Things like that.’

Ben glanced at Simon. Simon shrugged. ‘That’s what you mean by seeing?’ Ben asked. If that’s all there was to it they may as well go back inside.

‘Sort of,’ said Jacob.

‘But we can see all those with our eyes,’ said Mary. ‘We don’t need to feel them or hear them or smell them.’

‘Maybe I can show you other things,’ said Jacob.

Learning to track

Sarah is living on a farm where two families live.

Sarah was determined to learn to track, and if her father couldn't teach her, she'd teach herself. She borrowed a book on animal signs and tracking from the mobile library and memorised every word and illustration in it.

To the annoyance of everyone in both families, she borrowed all their shoes and, in the old sandpit, taught herself everyone's footprints. Shoes, sandals, thongs, gumboots, all ended up in the yard. More than once her father or her uncle Charlie came outside shouting, 'Sarah, where are you? Bring me back my boots.'

Sarah developed the habit of walking with her eyes fixed on the ground in front of her, tracking the comings and goings of every person in the place.

She also developed the annoying habit of questioning everyone. 'What were you doing down at the dam, Jack? You're not allowed to play with the pump. Did you find what you were looking for in the garage, Auntie Mai?' and 'Don't swing on the clothes hoist, Jack, you'll bend it,' or 'Who was the strange person, a man I think, who was wearing boots about size ten, who came to visit today, Mum?'

After she'd memorised every pair of shoes that everyone on the farm owned she started on the farm animals, including the horses, Fred and Freda.

By this time even her victims had to admit, grudgingly, that she was good. Her best effort came one evening at the dinner table when she told her father that Freda was lame in her front foot. Pat said that Freda was perfectly all right. Sarah was adamant that she wasn't, said her hoof had a split, and she was limping a little.

Everyone trudged out into the home paddock. Kate caught Freda and inspected her hoof.

'Sarah's right. The hoof is split. Did you look at this, Sarah?'

'No. I told you, you can see it in her tracks. Why would I need to look at it? Look.' She moved the horse away. 'Look, see there, it's plain in the dust. Well, can't you all see it?'

The others shook their heads.

'If you can tell she has a split hoof from that heap of dust, you're pretty good,' said Pat.

Making flat glass

Flat glass is used in windows because it is strong, clear and weatherproof. In the past, making flat glass was time-consuming and costly, but now it can be made cheaply and easily using the float glass method. This multi-phase method was discovered in 1959 by a British company called Pilkington.

In the first phase, glass ingredients are put into a melting furnace. This produces molten glass.

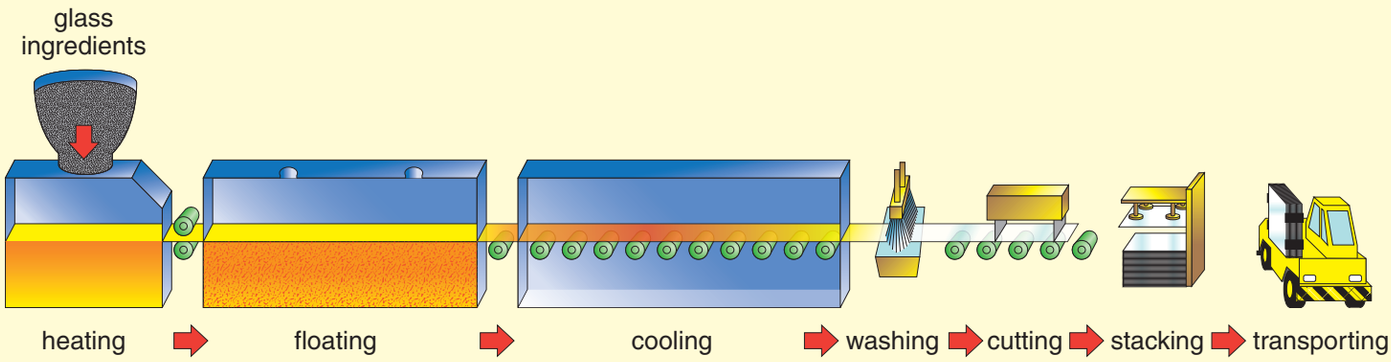
Next, the molten glass is gently poured into a tank of molten tin. This tank is called a float bath because a layer of molten glass floats on the surface of the molten tin. Molten tin is used in the float bath because it has a smooth, mirror-like surface. The molten glass can be made thicker or thinner by controlling how fast it flows through the float bath.

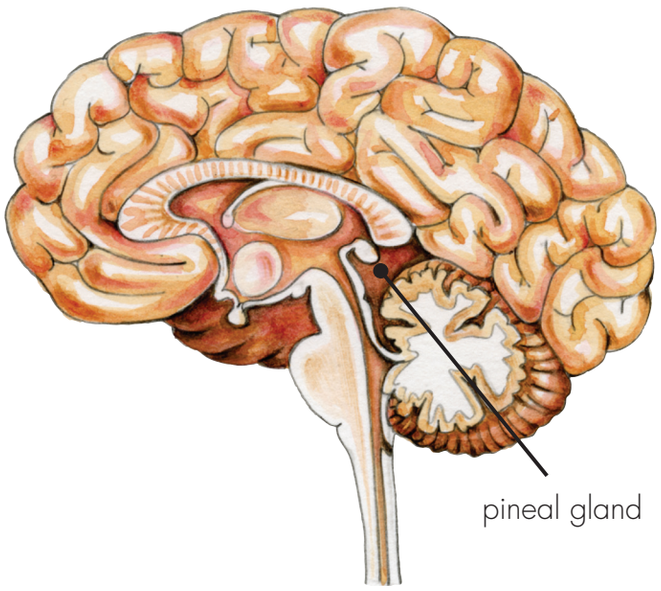
The flat layer of glass is then moved along rollers and cooled very slowly in a long tunnel called a lehr.

In the next phase, the glass is washed and then cut into sheets using diamond wheel cutters.

Finally, the sheets of glass are stacked together and then taken to the warehouse.

A long, flat layer of cooled glass comes out of the lehr to be washed and cut.





Our body rhythms

Shortly before you wake up in the morning, hormones flow from your glands into your bloodstream to get you ready for your daily activities. As you get ready for school, your heartbeat speeds up, and your breathing becomes more intense.

Throughout the day, your body goes through other changes. By late afternoon your body temperature has gradually increased by about 0.5°C. Your blood pressure, which is lowest during the early morning, fluctuates during the day until it reaches its peak by early evening.

Later at night, after the day's activities, you start to feel tired. While you are sleeping, your body goes through even more changes. Deep within your brain a structure called the pineal gland secretes a chemical called melatonin that flows into your brain to make you feel sleepy. The highest levels of melatonin occur at about 2 a.m., rising to about four to six times greater than during the day. If you woke up during this time of night it would be very difficult to do even simple tasks because the increased levels of melatonin would cloud your concentration and judgment.

Sleep also brings other changes. While your body is at rest, there is a decrease in respiration, heart rate and blood pressure. Your overall metabolic rate – the rate of the chemical reactions that go on in the body – also drops. The secretion of growth hormone, however, increases. About half the total day's amount of growth hormone is released during the first few hours of sleep, and most of the growth and repair of your body tissues occurs during sleep. By morning the cycle starts all over again.

Two posters

Here are two posters about healthy habits.

Poster 1

Good for kids
good for life

Choosing drinks for children...

Think water first!

What's the best drink?

Tap water is the best way to quench thirst without getting the sugar and kilojoules found in fruit drinks and juices, soft drinks, sports drinks and flavoured mineral waters. Drinking tap water instead of sweetened drinks helps prevent dental problems and the fluoride found in tap water also helps children develop strong teeth. Tap water is also less expensive than many other drinks.

For more info visit www.healthykids.nsw.gov.au

Poster 2

PULL THE PLUG
ON FOOD ADVERTISING

Let's give our kids a healthy future.
www.cancercouncil.com.au/pulltheplug

High-tech helmet gets right inside surfer's head

By Alison Aprhys
The Age Business Day
30 August, 2007

Surfer uses high-tech helmet

Coaching surfers has always been more challenging than getting land-based athletes up to the mark.

Real-time coaching was out of the question because the surfer had to catch a wave, paddle in, watch the video replay on a laptop, receive the coach's feedback, then paddle out again.

Now a former professional waterski coach has come up with a solution, providing instant communication while the surfer stays out in the line-up. Enter a waterproof helmet with an earpiece so the coach can relay feedback to the surfer from the beach.

Surfers – who stubbornly measure boards in feet and inches – are eagerly embracing the technology.

Comprising a microphone and transmitter for the coach, and waterproof radio receivers and headphones built into the helmets for the athlete, the helmet eliminates elaborate hand signals, loudhailers or time-consuming commuting to the beach and back out to the line-up.

"The helmet will put the coach's head on the athlete's shoulders," says its inventor, Mark Ellis. "The coach has a mike and transmitter and can speak to several athletes at once or each one individually. It's going to revolutionise a coach's effectiveness and results."

Electronics are set in a waterproof resin and all switches are operated by a magnet. It offers 16 channels and an operating range of up to four kilometres.

There are two models: hard helmets used for surfing as well as cycling, snow sports and kayaking, and soft helmets such as those used by footballers.

Grayme Galbraith, the director of a Victorian surf academy, has bought five helmets and says they will be particularly useful in coaching young surfers.

"Most of the kids can't remember what they did on the second-last wave 10 minutes ago," he says.

The helmet has been adopted by the NSW Institute of Sport, helicopter rescue crews and some AFL and rugby teams for training.

Mr Ellis will attend the US surf expo next month and plans to release a two-way communication model next year.

From moo to roo

Some may turn up their nose at eating meat that was once more common in pet food than pies. Others may raise an eyebrow or even an objection to being served one half of their country's coat of arms. Kangaroo may not be to everyone's taste, but if some of the country's leading scientists have their way, it could soon be leapfrogging beef as Australia's favourite meat.

People have been eating kangaroo for some 40 000 years, and in the last 10 years consumption has doubled. It is the ultimate organic meat: free-range, free of chemicals, and fed by a natural diet. It is also exceptionally low in fat; a kangaroo fillet has less than two per cent fat whereas a typical beef steak has between ten and twenty percent. It may not sizzle on a barbeque like a beef T-bone does, but it is rich in iron, full of protein, and high in Conjugated Linoleic Acids (CLAs) that can reduce heart disease and obesity. Research conducted by Clare Engelke at the University of Western Australia showed that kangaroo can have up to five times more CLAs than other meat.

Kangaroo farmers already harvest three million kangaroos each year and Dr Kelvin George, a leading wildlife consultant, is keen to see this figure increase. 'Kangaroos are soft-footed animals that damage vegetation far less than cloven-hoofed cattle,' he says. 'They do not compact the all-important humus layer of the soil.'

Dr George is not the only expert to identify the environmental benefits of farming kangaroos. A report by economist Professor Ross Garnaut argues that Australia's livestock industry is a greater contributor to climate change than the coal industry. Methane emitted by sheep and cows accounts for about 11 percent of Australia's greenhouse gases. A switch from cattle to kangaroo could change this; kangaroos produce negligible amounts of the gas.

Many cattle farmers, however, are unimpressed by Garnaut's report. A quick scan of farming websites reveals counter-arguments ranging from a perceived lack of consumer interest in kangaroo meat to the inaccuracy of the methane emission figures. Charlie McElhone from the National Farmers' Federation argues that a switch from moo to roo could seriously damage Australia's meat export industry.

Ultimately it will be left to consumers to determine whether kangaroo steaks are on or off the menu. If consumer demand fails to match the supply, this could cost proactive farmers millions of dollars each year. It could be argued, however, that the cost of ignoring kangaroo meat may be far greater.

END OF READING MAGAZINE

ACKNOWLEDGEMENTS

Talented teens
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Jacob
Extract adapted from *Rain Stones* by Jackie French, HarperCollins Australia, 1991.

Learning to track
Extract reproduced with permission from *Find Me a River* by Bronwyn Blake, Lothian Children's Books, an imprint of Hachette Australia, 2001.

Making flat glass
Text and diagram adapted from *Glass* by Hazel Songhurst, Wayland Publishers Ltd, 1991.

Our body rhythms
Extract adapted from *Clocks and Rhythms* by Alvin Silverstein, Twenty-First Century Books, 1999.
Image by Chantal Stewart.

Two posters
Text and images adapted from the Healthy Kids website – http://www.healthykids.nsw.gov.au/ and the Cancer Council NSW www.cancercouncil.com.au/pulltheplug

High-tech helmet
Text adapted from "High-tech helmet gets right inside surfer's head" by Alison Aprhys, *The Age*, 30 August 2007. Image: © Shutterstock.

Surf lifesavers
Photograph by Sarah Rhodes, newspix.com.au

Surf lifesavers

Australia was the first country in the world to have surf lifesavers. In the early 1900s, surf lifesavers were all males. Today, the mix of people who patrol our beaches reflects Australian society. We can be proud that the lifesavers of today are both males and females and come from many cultural backgrounds.