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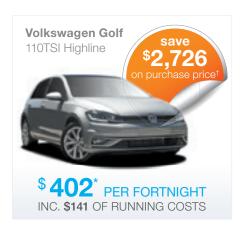
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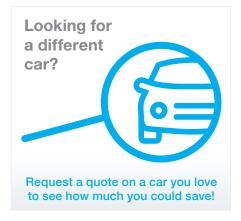












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Proposed Itinerary

Day One

- Depart Australia Arrive Singapore Transfer to your hotel• Hotel Check-in
- Duck Tour Buffet Dinner in Hotel

Day Two

- Breakfast in Hotel Gardens By the Bay Lunch in Food Court Back to Hotel
- Depart to School Interaction and Performance Rehearsal

Day Three

- Breakfast in Hotel Depart to School Master Class / Performance Rehearsal
- Lunch in School Interaction and Performance Rehearsal

Day Four

- Breakfast in Hotel Lunch Kingston International School multi-cultural program
- Singapore Zoo Plaza Singapura Back to Hotel

Day Five

- Breakfast in Hotel Performance Rehearsal Packed Lunch Performance Rehearsal
- Packed Dinner Concert at The Singapore Chinese Cultural Centre Auditorium

Day Six

• Breakfast in Hotel • Universal Studios Sentosa • Dinner in Arches Songs of the Sea

Day Seven

• Breakfast in Hotel • Hotel Check-Out • VivoCity Shopping Mall • Collection of Luggage Back to Hotel • Depart Singapore Changi Airport

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Kieran M Hurley - Director of Music Guildford Grammer School

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I thoroughly recommend that you do this tour!

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For more information contact the school music tour specialist



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youth music festival • beijing 2-11 July 2021

Proposed Itinerary

Day One

Arrive Beijing • Met by China Stars Events Personnel • Transfer to Hotel • Check in

Registration & Local Orientation • Travelling Staff and Faculty meeting

• Summer Palace 'flash mobs' • Welcome Dinner • Welcome performances

Day Three

'toast n tunes' performance • Master Classes or Guest Conductor sessions

• Hutong Tour • Chinese Tea Ceremony • Wangfujing Street

'toast n tunes' performance • Master Classes or Guest Conductor sessions

- 'midday melodies' Guest Conductor sessions or Concert 1 rehearsal
- School Showcase Concert 1 School ensembles perform

'toast n tunes' performance • Master Classes or Guest Conductor sessions

• Temple of Heaven • Acrobatic Show

Day Six

'toast n tunes' performance • Master Classes or Guest Conductor sessions

- 'midday melodies' Guest Conductor sessions or Concert 2 rehearsal
- School Showcase Concert 2 School ensembles perform

Dav Seven

'tutti festiva' preparation • sound checks • performance

The Great Wall combined choral performance • Art District 798 tour • Farewell Banquet 'bye-bye Beijing performance

'toast n tunes' performance • Tiananmen Square • Forbidden City

Hongqiao Market • Dinner with Beijing Roast Duck

Day Ten

Check out hotel • Transfer to airport for flight home

"tutti festival" - Peter Armstrong, Director, China Stars Events

The 4th tutti youth music festival beijing will be held in July 2021. With a stellar international faculty, your touring musicians will have an experience like no other.

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Andrea Stimson - Director of Music St Stephen's School

St Stephen's School attended 'tutti festival' in 2013. The experience was so beneficial for the long term development of our Music program that we returned for the 2019 Festival.

Our students gained so much from the event and I would thoroughly recommend other schools take advantage of this wonderful event.

Our experience was seamless and stress free, from our initial conversation with Morcombe Travel through to our participation in the festival and all that China has to offer.

'tutti festival' will give your students a wonderful opportunity to hone their performance skills with exceptional faculty of music educators and make new friendships with musicians from other schools.

The professional development sessions on rehearsal techniques and musical advocacy with the faculty provided an added bonus for the teachers touring with the ensembles.

Highlights included 'never to be forgotten' rehearsals, masterclasses and performances at the exceptional facilities of the festival venue and singing on The Great Wall of China! The day to day organisation was exceptional and packed full of music activities, great food and sightseeing opportunities.

I highly recommend 'tutti festival' and knowing that it is scheduled for 2021, I would urge other schools looking for a touring opportunity to contact Morcombe Travel for further information so you can start planning your next Music Tour!

For more information contact the school music tour specialist



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Cover Image:

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Police arrived at Heatley Primary School in Townsville following reports a teacher had been stabbed. The teacher in question was rushed to hospital with a small, non-life-threatening shoulder wound, according to the Queensland Police A taser was deployed before the student was detained.

While Senior Sergeant Scot Warrick declined to tell 9News what sparked the incident, he confirmed it occurred near a classroom.

Not long ago, secondary school teacher Emily Aslin shared stories with us from fellow teachers who have experienced violence in and around the classroom

"A teacher friend of mine was assaulted twice in one week," she was told. "The first time was when a student in Year 10 threw a chair and it hit the teacher in the head. The student was not sent home straight away and proceeded to instigate and be the aggressor



Rosie Clarke, Editor, *SchoolNews* editor@school-news.com.au

in two fights throughout the day. This incident happened around 10am and the student was still at school at the end of the day. They were given a 15-day suspension.

"The second incident was a Year 7 student who punched the teacher in the back and sides approximately 20 times after the teacher confiscated his basketball because he would not go to class and he swore at the teacher. That student got four days' suspension."

Aggressive parents are also a concern for many teachers. One teacher confided in Emily: "I had a parent repeatedly tell me he was a boxer and he would sort me out and all the

Feelings of powerlessness, repeat victimisation and ultimately job turnover were associated with teachers who perceived inadequate intervention

parents and students who were involved in an incident with his daughter. He then came to school was verbally abusive and threatening, leaned across the desk and got right up in my face – his wife pulled him back. He then did the same to the principal.

"The stress from the two previous incidents lead me to go on stress leave – my psych said it was adjustment disorder due to vicarious trauma."

A 2019 study of teacher victimisation by Moon, Morash and McCluskey found that "the extent of reporting victimisation to school officials by victimised teachers is quite high, considering that less than 50 percent of violent victimisation (Truman & Morgan, 2016) were found to be reported to police". The study described school leaders'

"inaction in responding to and investigating teacherdirected violence by students" as "a serious issue". Feelings of powerlessness, repeat victimisation and ultimately job turnover were associated with teachers who perceived inadequate intervention.

Teacher unions advocate that schools respond with student disciplinary absences where behaviour poses risk to staff. In a letter to members last year, Queensland Teacher Union deputy general secretary Kate Ruttiman said: "Instead of damning schools for using SDAs, we should be supporting them in taking the appropriate action to support the good order and conduct of the school and providing healthy and safe learning environments for students, and working environments for school employees." ■



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If you want to cut bullying in schools, look at the 'invisible violence' in our society

A new strategy to tackle bullying of children both inside and outside the school gates was recently released by the South Australian Department of Education.

It has adopted the national definition of bullying that directly links it to a misuse of power. The strategy also questions the role "movies, television, newspapers and the internet" could play in promoting violence.

But bullying is just one way people misuse power to harm others, and violent media as the cause of violent behaviour in young people is an old idea.

My research challenges simplistic answers about what causes young people to be violent.

To reduce school bullying we need to look at what is known as the invisible violence that young people are typically exposed to in their everyday lives.

Invisible violence isn't direct action, such as bullying between people. It's a feeling of violation experienced through culturally accepted behaviours and power imbalances.

Physical violence can then be thought of as the visible eruption or outpouring of the pressure built up through invisible violating social and power inequalities.

Violent media is not the (only) problem

The new Bullying Prevention Strategy aims to reduce the likelihood of bullying by addressing individual factors, social dynamics and social and cultural factors.

On this last point, the strategy says:

While research in this area is still emerging, there is evidence



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that social and cultural factors can influence children's experiences of bullying.

The strategy suggests there is a need to better understand the influence of media on behaviour.

But the idea that violence in movies, games and other media is corrupting young people has been extensively researched and is regularly a source of unwelcome moral panic.

Political leaders are often quick to point the finger of blame at violent video games as the cause of youth violence. In contrast, the results of significant research into a straightforward link between violent media and violent behaviour suggest this idea is inappropriately simplistic.

Sure, plenty of movies and video games glorify violence, and this is clearly visible to young people. But there are other less visible ways that young people are exposed to power inequalities and violence.

Exposure to 'invisible violence'

My research gathers marginalised young people's experiences of violence. These are young people who have often been victims or perpetrators of school bullying and violence.

When asked about what violence means to them,

they would begin by talking about physical fighting, verbal abuse and sometimes more complex experiences such as self-harm or neglect.

When I asked more, they started describing other power inequalities and abuses that are not typically thought of as violence. They talked about "rolling people for their money" because crime is "what happens with the loop of poverty".

They saw a system that "rewards you for being upper middle class and white and educated", and which considered people "not really that violent" if they are nice and polite.

These ideas are not usually thought about as violence. Violence is usually associated with physical force. But these young people saw violence all around them. As one young person described to me:

[...] the violence of our systems and structures of our society that we participate in [...] even in just existing, it's like a violent existence.

This violence is hidden because we don't think about violence in this way. But this invisible violence tells a story about how young people see who has power and how they use it.

There isn't a simple correlation between young people seeing or experiencing this kind of violation and then acting out bullying behaviour. Social systems and human behaviour are more complex than that.

But research so far in this space suggests this kind of invisible violence legitimises and justifies interpersonal violence.

This is a new area of research and there are unlikely to be simple answers. But blaming youth violence and bullying on violent media hasn't produced meaningful ways forward. This issue needs new and creative ways of rethinking the problem and causes of violence among young people.

A big issue in need of answers

An alarming number of Australians experience bullying and violence in schools and workplaces. More than a quarter of students in years 4 to year 9 in South Australian schools and more than a third of all employees in Australia have been bullied at some time.

My research suggests violence isn't simply something that is inherent to youth or that we grow out of as an adult.

Instead, visible violence and bullying can be thought of as a symptom of invisible violating social inequalities. Young people don't grow out of violence; they just learn to accept it and hide it in socially acceptable places.

That's why changing violent behaviours such as bullying in schools requires us to challenge our assumptions about violence. Rather than disparate incidents of bullying between individuals, violence needs to be examined as a pattern of abuses of power and a social narrative that underpins our society and cultural identities.

Ben Arnold Lohmeyer, Adjunct Researcher, Flinders University. This article is republished from The Conversation under a Creative Commons license.

Teacher-student relationships crucial to student engagement

A UNSW study has shown that students' relationships with teachers have a major impact on their engagement in schooling and that the good relationships outweigh the bad.

Researchers from UNSW Sydney surveyed 2,079 students in 18 high schools across Australia, then again 12 months later. Students were surveyed across English, mathematics, science, history, and geography.

In each of these school subjects, Professor Andrew Martin and Dr Rebecca Collie assessed the quality of students' relationships with teachers. They also assessed students' academic engagement, including students' class participation and enjoyment of school.

"Every additional positive relationship with a teacher was associated with greater engagement. That is, students participated more in class, they had more enjoyment in their learning, and their aspirations grew," Professor Martin says.

The more subjects in which there were positive teacher-student relationships, the more students' engagement at school increased.



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The researchers also discovered that if students had more negative student-teacher relationships, their engagement level decreased.

But importantly, when they compared the effects of positive and negative teacher-student relationships, they found that the benefits of positive relationships outweighed the negative effects of poor relationships. In other words, positive teacher-student relationships impacted students' engagement more than did negative teacher-student relationships.

"Students' engagement will remain good if the bulk of their

relationships with teachers are good," says Professor Martin.
"Nevertheless, if the negative relationships outnumber the positive relationships, students' engagement is sensitive to this shift in the relational balance from positive to negative."

The study means good news about the power of positive relationships—the more positive teacher-student relationships are in students' academic lives, the better.

The researchers say there are two ways in which this research can be applied to benefit student engagement.

"Schools can build in training and professional learning plans to ensure that teachers are finding positive ways to connect and engage with their students," Professor Martin says.

"In addition, teachers themselves can look for ways to create positive classroom climates, such as getting to know their students, providing emotional support when needed, and where possible, adjusting their teaching to meet the individual needs of students."

"Combined, these aspects can go a long way to keeping students engaged with their learning."

Morrison Government fails when it comes to education

The Australian Education
Union has slammed
a decision by Federal
Education Minister Dan
Tehan to push ahead with
a review of the Melbourne
Declaration while
ignoring widespread calls
for a review of NAPLAN.

Both NAPLAN and the Melbourne Declaration on Educational Goals for Young Australians were first instituted in 2008. Over the past decade, the goals of the existing Melbourne Declaration have not yet been achieved and serious concerns with NAPLAN and NAPLAN Online have been repeatedly profiled by the teaching profession.

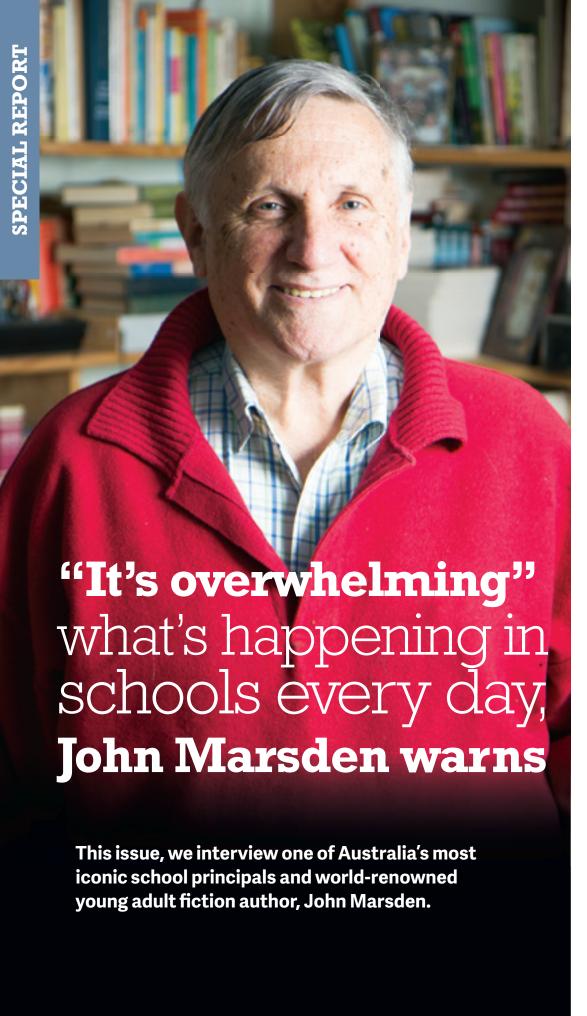
"The teaching profession has a broad range of issues which require urgent attention, including the inequality of public school funding, NAPLAN and teacher workloads, and yet these do not even seem to be on Federal Education Minister Dan Tehan's radar," Australian Education Union Federal President Correna Haythorpe says. "Mr Tehan's inaction over NAPLAN has seen NSW, Victoria and Queensland break away and act on their own accord to address NAPLAN's failings."

"That school authorities with a combined responsibility for more than three quarters of all students in Australia acknowledge the problem with NAPLAN, when Mr Tehan does not, is a source of embarrassment for the Morrison Government," Ms Haythorpe said.

"We welcome the commitment by the states to open up the NAPLAN review as a national review, even though the Morrison Government refuses to take part in it."

"Mr Tehan is wilfully ignoring the issues which will have a real impact on the lives and futures of millions of public school students, by focusing on a topic which is nothing more than a distraction,"

Ms Haythorpe said.



By Rosie Clarke, Editor

Marsden told us why teaching feels like working in a hospital ER, how to choose which books to teach in the English classroom and why parents are failing the school system.

Q: What do you think about your books being used in the classroom?

A • It depends on the teacher. I'm happy for them to be studied in the classroom if it's done sympathetically and with some real insight because a lot of people make very superficial responses to the books without necessarily having even read them. To me, the books are about people overcoming difficulties in their lives and drawing [from] inner resources and inner strength, and by doing so managing to make some progress. So they're not just books about people having tough times or going through awful experiences; they're about people going through those experiences and finding a way to continue to lead worthwhile, or rewarding, lives. I had an email from a parent about a book that was being studied in class - not one of my books - and she complained that someone in the book committed suicide. That's true, there was a suicide in the book but that wasn't the focus of the book at all; the book was about searching for new strategies and new ways to better handle difficulties.

Q: Should young adult fiction follow the curriculum or vice versa?

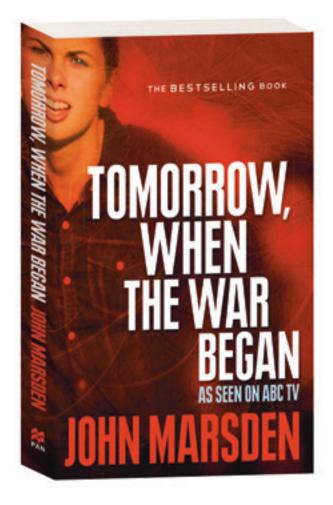
No, first the book • has to be well written and it has to have layers of meaning. So, a book that's just superficial and entertaining is fine for people to read - and I read them myself - but they're not books that I think we should be spending time in a classroom studying. So, I'm not interested in what's in the curriculum, I'm interested in whether a book has insight and is going to help us grow in wisdom and understanding. One of the things that

Australian schools pretty much ignore is that as well as the acquisition of knowledge, there is progress towards wisdom and understanding and insight that is needed in people's lives and therefore in the school curriculum. The focus of nearly all schools, nearly all the time, is just on acquiring knowledge. The English classroom is one place where you can do something quite profound in terms of getting further along that infinite path towards wisdom, that unreachable goal.

I will teach books that are written for teenagers - not because they're written for teenagers but because they're good literature. Equally, I'll choose books that are written for adults. The English curriculum is different to a maths curriculum or an Indonesian or French language curriculum because you don't have the logical, sequential process that you get with some subjects where you move through a series of steps along a clearly defined path. With the English curriculum, you can range very widely and you can explore any kind of situation. life, or scenario in ways that will enrich students and help them get a better understanding of life. So, I don't mind whether it's The Little Prince or something by Marcus Zuzak or Tim Winton or Jane Austen or Helen Garner, they're all fine writers.

Q: Has becoming a principal and founding your schools changed the way you write?

Well, it's taken away all the time I used to have for writing because when I was teaching full-time I found that I only really wrote during the school holidays because - without getting too wanky about it - all my creative energy was going into teaching. Usually over the Christmas holidays it took a couple of weeks to recover from the year of teaching and then I'd start writing. I wrote six books while I was still teaching but once I became a full-time writer it was a different story. I had more time and space and energy for writing. But now, running the schools, well I



used to publish around three books every two years and now I'm down to about four books in the last 14 years I think!

Q: What is the highlight of running your schools?

Trying to solve problems and if I can't solve them, trying to find a way of moving forward - a bit like in the novels - so things can continue in a positive way. That taxes anybody of their energy and creativity and life experience. It's pretty intense. I do enjoy it. It's like a machine: if you don't tend to a little squeak here, an oil leak there,

then the whole machine starts to emit smoke and eventually the whole thing breaks down. You have to be as attentive to a kid that stuck chewing gum to the back seat of a bus as you are to a kid who's using drugs or whose parents are going through an ugly divorce.

Whether big things or little things, you've got to be able to tend to everything and be very aware of what's going on. I do enjoy that in a way. The only parallel I can think of is when I was 19 or 20 I was working the night shift in the Sydney hospital casualty department - emergency department they'd call it now probably - from 6pm to 6am. I'd be checking patients in and

The English classroom is one place where you can do something quite profound



getting all their details and filling out the forms and doing all that, but I was also cleaning up vomit and blood and urine and methylated spirits from alcoholics who drink that because it was cheap, and I'd be moving beds and helping get trolleys in from ambulances and trying to placate people who were drunk and angry or just sober and angry. You just never knew what the next minute would bring and it was working with people who were under stress and in an extreme situation and that's happening every day in schools.

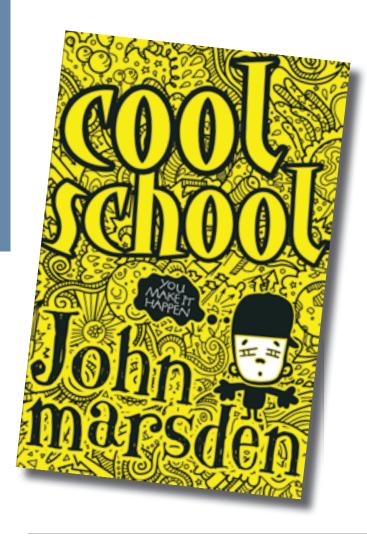
We have students who are at an extreme point in their lives because of an event that has happened or because of some psychological issues that they are grappling with and you just never know what the next phone call, knock on the door, email will bring. I kind of like it, it's satisfying or it's totally absorbing. It's exhausting but it's certainly not boring.

Q: What has surprised you the most about it?

The way in which parenting has changed very quickly over the last 10 to 20 years so that there's a great middle class movement towards placating children; being their best friends, being their servants... people who have almost abandoned the role of the adult in the family structure to a large extent.

Q: Has it put more pressure on schools?

God yeah, we have to • [play] the adult role a lot of the time and I find myself saying to parents, 'look, you have to really draw a line here with your child and tell them that at 2am they can't be on the phone texting their friends' or 'they can't be drinking alcohol at 14', and there seems to be an incredibly great fear among parents that they can't say no to their children but at the same time there's this abdication of the role of setting limits and imparting values and really communicating how people are going to live a successful adult life.



■ To live a successful adult life there are things that you need to acquire and one of them is the ability to use language and develop your own voice but also to have first-hand experiences in childhood and adolescence.

If your life is spent looking into a computer screen playing Fortnite or Skyrim, you're not having a first-hand experience.

You'll have nothing to talk about, you'll be a boring adult and you'll be lacking a huge range of skills required in the real world.

Q: Some schools host what are almost parenting classes. Do you have an opinion on that?

Yeah, I've got plenty of opinions and they're strong opinions! I think that it's worth having those classes for parents because the extended family, for many people, is no longer

a concept and increasingly the landscape for children is a house or apartment with one or two parents and no siblings or one sibling, the school, the shopping mall, the sterile and boring playground down the street full of plastic, 'safe' toys and that's it. They don't get their hands dirty. They need to be playing down by the creek and the beach, going into the bush and running around a garden.

They should meet a variety of people in their lives, they should be doing work experience and getting jobs as early as possible - part-time jobs, holiday jobs, weekend jobs - they should be living a real life and it seems like something that people are frightened of now.

There's a fear, understandably as there are a lot of things to be concerned about at the moment, but we have to find the courage not to hide from those fearful things but grapple with them and try to improve things.

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You just never know what the next phone call, knock on the door, email will bring



Q: What needs to change?

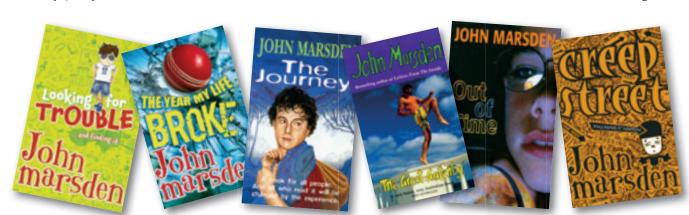
A • I think the biggest problem for schools at the moment is that society's evolved very quickly to a

point where schools are now expected to take care of every ill, problem and difficulty in humanity and - I'm exaggerating a little but not much - you know, we have to teach them to swim. It's

compulsory in Victoria now that we have to get them swimming quite a considerable distance by Year 6 or we're in big trouble as a school. We have to teach them about cyber bullying; we have to teach them sex education; we have to teach them about drugs; we have to teach them financial management; road safety; psychological wellbeing; positive thinking, the list is infinite and added to every day. But we don't have the kids for any more minutes or hours than we did a generation ago or one hundred years ago.

So, something's got to be taken out of the timetable to

make room for all this and I'm not sure what can be taken out because whatever we take out we get criticised for taking out. After all that, we're criticised for not teaching literacy adequately and not preparing kids for their banking jobs because the business community wants us to prepare kids for jobs in their companies, which I don't think is our responsibility actually, but that's yet another pressure on us. We have to teach foreign languages, we have to teach PE, we have to teach them about diet... It's overwhelming. ■









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Leading School Improvement

through building the capacity of all staff

Blue Haven Public School has undergone a transformation in recent years, resulting in the school being named Australia's best government primary school at this year's Australian Education Awards.

The school's successful turnaround can be attributed to a number of initiatives; however, a key component has been a strong commitment to professional development and building the capacity of all staff.

Tiered leadership model

In 2017, in collaboration with the school executive, I introduced a tiered leadership framework to support school improvement and leadership density. The model was implemented in

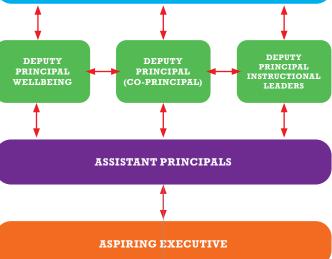


Paul McDermott,Principal
Blue Haven Public School

order to provide higher levels of support to all staff with a focus on providing opportunities for all staff to increase their knowledge and skills across the school.

This model has resulted in clear roles and responsibilities and has prepared staff to fulfil leadership roles at a school and system level.





TEACHING STAFF

Aspiring executive

All Blue Haven staff are seen as leaders and encouraged to seek leadership roles and experience. In 2019, seven teachers were inducted as aspiring leaders.

The aspiring leaders attend executive meetings, lead professional development and are mentored by members of our executive to lead professional learning communities throughout the school.

Since the implementation of this model, the school has

seen a significant increase in interest from staff in seeking leadership roles.

Professional development

Blue Haven Public School implements a whole-school approach to professional development that aligns with the school vision and individual performance and development plans. All staff, including support staff, receive high quality professional development in evidence-based approaches









to teaching and learning and wellbeing. This has generated a high degree of collective efficacy throughout the school while still supporting teacher agency through initiatives such as Stage Budgets which support teachers to identify differentiated professional development that is appropriate to their needs and experience. Staff professional development is supported through extensive differentiated coaching where senior executive staff support teachers and aspiring executive through a gradual release model, similar to the explicit teaching model that is utilised throughout the school for students.

Collaboration

High levels of collaboration are evident throughout the school. All staff participate in collaborative planning days every five weeks. These meetings support all staff to reflect upon data, highlight and share success stories, participate in consistent teacher judgement of student work samples and lead and participate in professional development.

Leadership development

Each week, the school executive meeting commences with professional reading. All executive and aspiring executive lead a professional reading each semester. All staff are invited to attend as the group reflects upon a reading and its relevance to our context and direction. Readings are selected by individual leaders, are relevant to the strategic directions of Blue Haven Public School, cover a broad range of topics and are highly valued by all staff.

Some of the most rewarding executive meetings are those where our team participates





in robust conversations around our readings.

The senior executives also prepare scenarios at scheduled meetings throughout the year where leaders are presented with a particular school based issue and the group works through the problem together in order to resolve it. Scenarios include links to relevant

policies and procedures in order to support staff to align with protocols. Scenarios have been designed around issues such as enrolment, suspension and expulsion and community use of facilities.

Blue Haven Public School's commitment to building the capacity of all staff has resulted in significant school



improvement since 2016/17 including moving from the bottom 10 percent in New South Wales for value added growth to the top 10 percent in only two years. Blue Haven's transformation is a celebration of strong leadership, a positive school culture and a firm commitment to investing heavily in our most important resource. Our staff. ■





Do parent/teacher interviews have to be a nightmare?



By Mandy Clarke, Industry Reporter

Hey teachers, it's that time of year again.

You know, the season when you feel like you have absolutely have no life and resist the urge to slap whomever says, "must be nice to work from 8 'til 3 and have the summer off!".

It's the time of year you find yourself telling your partner "good job" out of habit, and reaffirm that you couldn't possibly have your own children because there isn't a name on Earth that would lower your blood pressure.

Yes, it is end-of-year parent/teacher conference time. The most fun part of the year – said no teacher ever! Then again, parent/teacher interview season doesn't have to be a nightmare and if you are prepared it can be a productive joy... honestly!

We have gathered together

some top tips for face-to-face interviews that just might help you survive that one meeting with that one student's parents...

- 1. Tool up! Promote effective home/school communication year-round by using interactive technologies so that students don't have to be paper messengers. Research has shown that family involvement in a child's education positively benefits everyone.
- Have a school policy in place to inform parents how important it is to attend the conference by telling them what they should ask and how they can benefit.
- Think of it as a business meeting! Avoid small talk and sandwich negative feedback between positive comments. Be direct with constructive criticism so there's no misunderstanding.

- 4. Have a record parents can look at so feedback doesn't feel subjective and you can avoid defensive flareups. Samples of student work provide great talking points. How do the parents think their child's progress could improve? When in doubt, ask questions!
- 5. Focus on wellbeing. Invite a dialogue with parents about their child's stress and workload. Does your school have resources they should know about? Voice any concerns you might have and feed any serious concerns up the school admin totem pole!

Finally, take care of yourselves: have plenty of water, some chocolate on hand, and breathe! Life as a teacher invariably involves worrying about other people's children. While there are tools that can help manage your time and smooth out interactions

with parents, it's important to have a self-care routine so plan something to look forward to!

Industry viewpoint:

We heard from School Interviews' Andrea Chick about how teachers can reduce stress and time spent doing admin by using interactive technology.

Reducing paperwork and not relying on paper notes is a big thing teachers can do to save time... Every piece of paper that leaves your desk or arrives on your desk has to be dealt with: waiting for it all to return before you can organise something, keeps you in limbo until the last minute. Expecting children to be responsible for giving notes to parents or bringing them back in a timely manner (especially if they don't want their parents to come to interviews) usually results in more time spent trying to organise the appointment, than the actual appointment itself.

TEACHER'S DESK

Term 4, 2019 | school-news.com.au

Interactive technology needs to be better than what it replaces or it risks being rejected entirely. For example, sending an email to parents letting them know that there is important news is great, but if it requires them to click on a link to a website that requires them to enter (and remember!) a username/password, then click two different menu buttons to find the important news - which could have iust been included in the original email - is incredibly frustrating to parents. If it's too difficult, they will stop engaging at all. Any technology that is introduced needs to be easier for everyone.

If the people you need to reach don't engage and you don't get the response required, then you haven't saved any time at all. Parents often complain that they don't get enough notice for parent teacher interviews. Online booking requires no lead time. It can be set up in under 10 minutes, parents can book straight away and get instant confirmation of their appointment time. Bookings can be left open until the very last minute because you don't have to coordinate sibling bookings with other teachers or send notes home. This gives parents longer

to finalise appointment times and the easier it is for parents to book appointments, especially for parents where English is their second language, the more parents will actually book. Parents can reschedule appointments themselves if things change. You also don't need to spend hours coordinating available interpreters, when it happens automatically. If a teacher calls in sick on the day, or if the event needs to be postponed, letting parents know and rescheduling can also be done instantly, online.

Preparing parents for a parent/teacher interview

Nothing replaces faceto-face parent teacher interviews, especially when students are involved too.

They say it takes a village to raise a child, but a partnership that involves parents, teachers and students - all working together as a team - is what it takes to educate a child. Helping parents to prepare for interviews is often overlooked. Choosing your own appointment time is great, but parents should also know how



long they will be there for, if their child should attend too and where appointments will take place.

All that information should be in one place and easy to find.

Providing parents with some suggested questions that they might like to consider before they arrive, or questions that would be great to ask their child before and/or during the meeting, gives parents more confidence, makes the best use of the short time available and can really set the tone for these conferences. Well thought-out questions and answers also show students that everyone involved in their education, thinks these meetings are important, because they really are.

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Term 4, 2019 | school-news.com.au TEACHER'S DESK

Five survival tips for newbies (and not so neubies too!)

I certainly believe that I learnt more in my first year of teaching than I had in the four years of training I had done.

But the learning doesn't end, or at least it shouldn't. It is okay (and normal) to feel exhausted at the end of a day of teaching. I'd be worried if you didn't! The following tips are designed to help you build your teacher fitness and not only survive the demands and pressures of your first year but to maximise your effectiveness.

Your attitude is contagious

The most important decision you make every day is your attitude. The attitude we bring to a situation has a huge impact on how we see and react to the situations we face. It is important to remember that it is a *choice*. Circumstances can



Steve Francis, Creator Happy School

make it challenging but it is how we respond that matters. You can choose to see challenges as impossible barriers or opportunities to be flexible and grow. It is vital that you realise that your attitude is *contagious*. If you are excited about a lesson, organised and enthusiastic about the learning opportunities that you are providing for your students, they are far more likely to also be interested and

excited. If you aren't enthusiastic or interested, they'll know.

Don't sweat the small stuff

At times, we over think things and start 'sweating the small stuff'. When our energies and reserves are running low, we tend to be less patient. Small things that wouldn't normally be an issue, can suddenly frustrate us and draw more attention than is needed. We can overreact and blow things out of proportion. A useful question to ask ourselves is, "Will this matter a year from now?"

If we lose sight of the bigger picture and only notice negative aspects of our situation we can end up running around in a panic, trying to solve problems and put out bush fires. Because everything seems like a big deal we end up rushing around from one drama to the next. Try to avoid sweating the small stuff.

Are you warm - demanding?

Behaviour management guru Bill Rogers uses the term 'Warm-Demanding' to describe the ideal teacher demeanor.

Our interactions with students should be characterised by a balance between the 'warmth' that shows we care about them as individuals and the 'demanding' that shows we have expectations of them and their behaviour. It can be helpful to think of this as a continuum.

Being too far to one end of this spectrum is ineffective. Some staff are 'too warm'. They are clearly very keen to be friends with students and work very hard at building rapport. To them retaining the friendship seems to be the highest priority. The teacher therefore had very limited control. In that situation the student is setting the tone.





I have also worked with staff who are 'too demanding'. I'm sure you know the "Don't smile until Easter!" approach. Teachers at this end of the spectrum display an attitude that could be described as harsh.

There is no warmth displayed or any effort to build rapport with the students.

They are very demanding, have very high expectations of students and could be interpreted as aloof. While they make their expectations explicit to students, they are at risk of being unrealistic and disconnected from the students.

The ideal situation is an appropriate balance between warmth and demanding. The warmth is necessary to connect with students, have a good rapport and a relationship where students know you care about them and their learning.

In this situation the student is more likely to respond by doing their best.

Monitor your selftalk

We can be our own harshest critic. There will always be more that we should do. More lessons or resources we should prepare. More differentiation activities that we should provide. More technology that we should utilise and more professional development that we should attend.

At times we can 'should' all over ourselves. Teaching is a never ending profession. Continuous improvement is vital.

It is important that we monitor our self-talk and check whether our own expectations of ourselves are fair and realistic.

Make time for you

If you are run down and worn out, your ability to cope with the demands of teaching will be severely hampered. Looking after your own wellbeing is essential. *



Here are some key stress management techniques:



Your physical well-being is of utmost importance in dealing with stress. One of the first things we stop doing when we are busy and stressed is exercising. Exercise increases the blood flow to vital organs and delivers more oxygen to the brain. This enables you to think more clearly and cope with the stresses you encounter in school and life itself.

Poor nutrition can have devastating effects on your body and severely limit your ability to cope with stress. Follow a well-balanced and nutritional diet and limit your intake of sugar, soft drinks, coffee, tea, biscuits, etc.





Getagoodnight's sleep and maintain a regular schedule; avoid naps. Alcohol and coffee affect sleep patterns.

Try different relaxation and

breathing techniques (eg meditation or yoga).



Takecharge of your time when YOU have control - by utilising your time better, you can increase your effectiveness and decrease your stress level. Asking yourself "Is this the best use of my time?" can help us to do the most important things first.

Try not to take ourselves and others too seriously.

By keeping our sense of humour, we can better cope with many of life's challenges.



Steve Francis created the Happy School program to improve staff wellbeing and reduce stress in schools. His weekly articles are received by school leaders in over 600 schools across Australia and New Zealand to share with their staff. Steve also works with great school leaders and staff at conferences and in-house professional development programs designed to improve staff wellbeing and optimise schools.



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Upcoming Industry events

Educational events for your calendar

NOVEMBER

18 An Evening With Eddie Woo

Crown Convention Centre, WA

CONTACT:

The Mathematical Association of WA

WEBSITE:

www.mawainc.org.au

ABOUT: Superstar maths teacher, Eddie Woo is landing in Perth to talk with teachers and students about his passion.

27-29 Institute of Technology Education Conference

SMC Conference & Function Centre, Sydney

CONTACT:

Register via Eventbrite

WERSITE:

itensw.com.au/Events

ABOUT: This year's three-day event will focus on resource sharing, skill development and advancement, and updating teachers on current and future directions in STEM education, including the industrial arts.

DECEMBER

01 Australian Association for Research in Education (AARE) Conference 2019

Queensland University of Technology

CONTACT:

youthecosummit@sopa.nsw.gov.au

WEBSITE:

www.sydneyolympicpark.com.au

ABOUT: A student-let sustainability event featuring a variety of projects on STEM, fashion sustainability and the war on waste, plus projects by the NRMA Future of Transport Challenge Finalist schools.

JANUARY

20 The Teachers Matter Conference Day 2020

Novotel, Brisbane

CONTACT:

Spectrum Education

WEBSITE:

www.spectrumeducation.com/ teachers-matter-conference-2

ABOUT: With topics including student agency and value-based teaching and learning, this conference also provides strategies to increase your capacity, maintain positive focus, increase team work and build resilience...

FEBRUARY

20 The Sydney Morning Herald Schools Summit

ICC, Sydney

CONTACT:

jamie.elekman@informa.com

WEBSITE:

www.smhschools.com.au

ABOUT: Completing the Sydney Morning Herald Summit will contribute 8-hours of NSW Education Standards Authority (NESA) Registered PD, addressing 6.2.2 from the Australian Professional Standards for Teachers towards maintaining Proficient Teacher Accreditation in NSW.

MARCH

12 Australian Inclusive Schooling Conference

Brisbane Convention & Exhibition Centre

CONTACT:

Illume Learning

WEBSITE:

inclusiveschoolingconference. com.au

ABOUT: Australian and international leaders in the field of inclusive education to share informative and engaging presentations on the philosophy, research and practice of inclusive education.

18 National FutureSchools Festival 2020

Melbourne Convention and Exhibition Centre

CONTACT:

joshua.kitson@terrapinn.com

WERSITE:

www.terrapinn.com/exhibition/ national-future-schools/index.stm

ABOUT: By the organisers of EduTECH, National FutureSchools offers a drilled down perspective compared to its sister event; with a unique focus on teachers and student wellbeing across all levels and types of education. This is the best location for buyers to evaluate and see the latest technologies in action.



Images courtesy of Terrapinn

Light the way



The Knox School recently built and piloted its first lightboard.

A lightboard is much the same as a blackboard or a whiteboard except that it makes use of glass to enable recording. The great advantage of this is that teachers can be recorded as they teach; the recorded image is captured together with what has been written onto the screen and is made accessible to students outside class.

The technology is remarkably simple. A pane of glass surrounded by LED lights provides the illuminated screen. Positioned in a recording studio, a camera can then be positioned on one side while the teacher stands on the other. The teacher can then use the lightboard as they would in class, all the while speaking and explaining what they are teaching. In postproduction, the image is then 'flipped' and writing that was recorded in reverse becomes legible. If you can ignore the fact that the teacher appears to be writing in reverse, what you have is a video that transposes the approach to teaching and learning with which both teacher and student are already familiar.

This is perhaps the most exciting aspect of the lightboard. As a bridge between the classroom and digital learning, the lightboard offers a familiar experience with the added benefits provided by recording the teaching and having it accessible beyond the timetabled class. So much of teaching is invested in the moment. Those who have taught the same subject for many years will without



Cameron Bacholer,Deputy Principal, The Knox School

doubt have explained the same concept or skill multiple times throughout their career. Recording this through a lightboard provides an alternative. Here is a way to minimise the need to repeat the same task but capture it for posterity.

Of course, a lightboard and what it records cannot replace the human interaction and response to the specifics of a class dynamic which governs our classrooms. Indeed, students remain that: students. They are evolving learners and our greatest importance as teachers is our ability to understand the learning needs of a student and to assist them in the transfer of skill and knowledge. Rather than replace classroom interaction though, perhaps a lightboard is one means by which more time could be found for teachers to spend working with students to aid their learning. More time could be spent clarifying or assisting with writing, problemsolving, comprehension or discussion rather than grouped content delivery.

A lightboard may not be the future of education but for the time being it provides options that previously have been difficult to pursue. Many teachers have experimented

Here is a way to minimise the need to repeat the same task







with pod or video casting as a means to 'flip' the classroom and many have enjoyed great success. A lightboard becomes another resource that can assist with this blended learning experience and one that does not require the learning of a new skillset by the teacher. A lightboard

should make the creation of digital content and thus the development of blended learning opportunities approachable for all teachers.

It is an exciting development that offers many opportunities and one with which The Knox School is keen to continue to experiment. ★

Research busts 3D printing myths



By Mandy Clarke, Industry Reporter

Three British
researchers, Ahmad
Beltagui, Achilleas Sesis
and Nikolaos Stylos
recently busted some
myths about 3D printing
in *The Conversation*that schools might
find interesting!

De-escalating worries around the technology being able to print 3D plastic objects so easily leads to even more environmental problems, it's actually the contrary the research reflects. With the researchers pointing out that "printing massively reduces waste, compared to traditional "subtractive" manufacturing (cutting, drilling etc). Also, materials may be biodegradable."

Australian projects, such as a new plastics recycling technology recently unveiled by environment minister, Sussan Ley supports this counter argument. The new



All Images courtesy of Bilby 3D

federally funded microfactory at the University of NSW is reportedly "helping deliver world-first technologies that include turning discarded plastic into high-quality 3D printing filaments".

Ms Ley told *UNSW Media* that exciting new technologies such as the microfactory held "important keys to the future of our recycling economy".

Another myth busted by the British researchers was that 3D printing could undermine future industries. "For years, 3D printing has either been described as disruptive or revolutionary. As with any technology in history, these terms have led to fears about job losses." However, the research allays these fears by affirming that "access to lowcost, local production helps turn bright ideas into business and career opportunities". Providing 3D design and printing skills to school students through STEM programmes "is a good

way to increase engagement with science and engineering in schools". The researchers found that acquiring 3D printing skills "helps make entrepreneurial dreams achievable".

Arguments that "it's too expensive", or "too difficult" to make the technology go mainstream are countered by increased availability. 3D printers are now available in public places like libraries and museums and are increasingly prevalent in schools and universities. If students are taught the skills, they will be able to exercise them in a variety of settings as we head into the future. With the 3D community's willingness to share designs it is even possible to save money and create solutions for everyday real-world problems. Imagine being able to "download and "remix" an object design that can replace broken household parts or create accessibility aids for friends and family with health or mobility concerns.

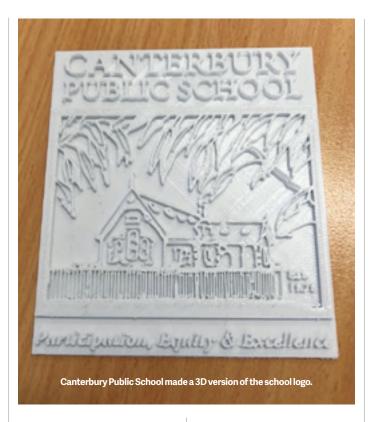


For teachers, before purchasing a 3D printer for your school, it is easier than ever to test one out. Contact a supplier to find out how you can give the technology a try, visit a local school that already has one, organise for a workshop or training session; or visit a library space that can take you through all of the free resources available to schools.

Zoe Lee from Lane Cove West Public School told us about how her students are using 3D printing: "Once we started looking deeper at the lessons, we saw so many opportunities with the 3D printer. For example, for mathematics it's so practical; the kids are working with 3D objects and it links really well with maths and replaces some of those lessons you might have normally done. 150 students all ended up with a 3D printed product: they are applying that learning and seeing a real world use for it."

Industry perspective:

We spoke to Bilby 3D's CEO, Chris Bilby about innovative ways schools can use 3D printers...



There are two main reasons schools 3D print:

- To produce teaching props and aids
- 2. To teach CAD/design

The latter is what most people think of but the former is the one that can radically change a class. Today, thanks to the 3D archive of museum scans, you can print life size dinosaur

bones, or ancient artefacts and sculptures from around the world so your students can hold the teaching topics in their hands and truly grasp scale in a way that 2D just could not provide.

You can print 3D objects, to help children visualise volume in a maths class. You can use them to make your school more inclusive and produce tools that will assist children with a disability in the classroom

You can easily download science projects from bee feeders to actual scans of the moon, and incorporate these items into your class to drive student engagement.

To address safety concerns, schools should only use fully enclosed machines that include both HEPA and carbon filtration

In addition, more classroom-friendly machines have sensors that detect if doors are opened and pause prints to avoid burning or crushed fingers. It is important to make sure that the machine you choose has taken all these factors into account.



Inventor 2 SE - Special Edition

Bilby 3D have drawn on 2 decades of education experience to design the Inventor 2 SE. The robust, easy to use workhorse for Australian classrooms, with full AU certification, backed by on and off-site Servicing & Support

What makes this 3D Printer Special?

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Used by NSW DoE Stem.T4L Program & GE 3D Printers for Schools Program

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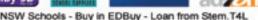
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Find out more: Bilby3D.com.au/STEM



Term 4, 2019 | school-news.com.au TECHNOLOGY



By Mandy Clarke, Industry Reporter

New forms of teaching and rapidly evolving instructional technologies demand educators present new, innovative and more flexible classroom environments.

It is possible to transform a traditional desk/chair format with some creativity and adaptable furniture. You can turn your classrooms into wonderful and flexible learning spaces (FLEs). FLEs integrate pedagogy, physical design and instructional technology to support a variety of learners and their learning experiences. These spaces should be able to facilitate a

shift from teacher-to-student instruction to collaborative activities and self-discovery. To achieve this, schools must move away from fixed seating towards flexible furniture that can be re-designed for each learning activity or new teaching method. The more creative you are with your approach to a learning area, the better you can adapt these spaces. How do you want students to approach their learning in this task? In small groups or individually? Quiet discussions or class-wide debate?

For inspiration, do not feel restricted to Googling other classroom designs: there are astonishing FLE creations to be found in libraries, cafeterias and even corridors!

Consider this... an award-winning, innovative design for a flexible learning space was set-up in Switzerland, at St. Johann Primary School. Pioneering designers ZMIK re-imagined three main corridors of the school into quirky hubs for places to study, retreat and collaborate. The design took ideas and wishes from pupils and teachers to construct unique learning zones that would inspire study and get plenty of use.

St. Johann's corridor space now has a cave and high seat for quiet retreat, plus several different work surfaces ideal for individual and group work. There is also a slide, balancing paths and even jumping balls for 'moving lessons', comfortable alcoves for meetings, contemplative reading areas and even a few clever storage solutions.

Why should you design a flexible learning space?

Because extensive research shows that not all learners experience the same 'way in' to learning. If you create a flexible variety of learning 'zones' and "ways in", you are creating a much more inclusive and supportive learning environment for all your students.

Tips for creating effective flexible learning spaces...

 Make use of up-todate research and educational theory.







Classroom seating at Sacred Heart College. Image courtesy of Resource Furniture

- Create your environment around effective educational pedagogy.
- Collaborate with the school community - educators, parents and students and be inclusive of all learners.
- Work with creative designers to make the most of your spaces to accommodate and support different student needs.
- 5. Source quality furniture that has dual or multiple uses.

Create spaces that promote effective communication.
Spaces that allow students to actively participate. Spaces that inspire inquiry and wonder not boredom. Spaces for the delivery of flexible lesson styles. Spaces that encourage positive relationships and

spaces that are fun, with clever use of colour, textures, materials and furniture.

Finally, remember that some students actually do prefer a more traditional desk and chair set up, so your flexible learning environment should always provide an effective space for that child as well.

Insights from the flexible learning sector:

Resource Furniture senior product designer, Michael Merlino emphasises need for planning in the rush for innovation.

"Start with space planning. How will the space/s will be used? Engage students and staff in the design process. Research shows they have a greater sense of belonging and ownership if they are actively involved in the design process. Learn how the teachers actually want to use and teach in the space before furniture shopping.

"Provide a centralised common meeting and breakout space that students want to use. Fun and well-designed furniture, including soft seating options and a mix of small meeting tables and bench height tables provide furniture options with freedom.

"Booth seating is very popular because it is so variable; from individual pods to six-seater collaborative configurations. Booths with in-built power allow students to charge devices as required and many booth options also have acoustic properties that reduce sound in busy breakout spaces.

"Low stools are another popular

option for flexible spaces as an alternative to (or in combination with) traditional desk chairs. Many of these options are now available with curved bases to encourage movement or adjustable heights to cater to students with different needs and of different ages. They are also a great way to add pops of colour with fabric choices.

"Depending on age, some students prefer to work on the floor or in beanbags. Some like little pods where they can focus on individual work and some prefer to work higher up on benches where drafting chairs or stools are popular. Students are drawn to higher seating options, so those are usually the first seating options they take-up. When students have the freedom to choose, they are comfortable and more engaged."



Innovative storage for flexible tech teaching



Image courtesy of APC Group

By Rosie Clarke, Editor

There was a time when people thought 'paperless schools' would usher in the end of filing. Au contraire! Technology-focused schools require more storage than ever.

Whether it's student laptops or classroom smart devices, charging facilities or robotics equipment, there's a lot of new 'stuff' to secure and store. The growth of outdoor learning and modern learning environments also mean that schools have to get more creative about how to store all this technology and how to charge devices between uses.

Here are some options we found that are available to Australian schools....

Laptop lockers and trolleys

Students use laptops in almost all learning areas, so fast charging capabilities are essential. There's a reason everybody scans the room for a power outlet before choosing their seat: most buildings were not designed to have 30+ devices plugged in at the same time. Times have changed and enabling students to

top-up devices, without creating a spider web of cords strewn around the floor, is key. Laptop lockers and device trolleys can help achieve this. They allow you to plug laptops and devices into individual, lockable slots where they will charge during breaks. Laptop lockers are ideal for classrooms and libraries where devices do not need to be shared around the school and can live in

their designated rooms. Tagging devices to their slots can assist IT, should any go missing or become faulty. Permanent lockers are designed not to overheat, usually with a perforated back or side, and offer fast-charging so that students using them later in the day don't miss out. Laptop trolleys offer a similar functionality but can be transported around the school.

Handy and secure, they are ideal for use in a modern learning environment or during outside activities. Many of these trolleys have power settings to avoid overloading laptops as overcharged batteries weaken over time. They generally only use one outlet to power all of the devices; standard trolleys will hold between 20 and 35.

Technology storage for teachers

There are some flashy and exciting storage options for classroom technology in 2019 as electronic teaching aids and flexible learning environments become the norm. As with ILEs, school technology storage prioritises multifunctionality and connectedness, with software now available to help schools manage the digital administration – even organise student payments for locker rental.

Dr Terry Byers recently wrote about research published in The British Journal of Education Technology. He details a study of the relationship between classroom layout and technology use, where teachers in ILEs were better at integrating technology into their practice.

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In traditional forward-facing classrooms, on the other hand, teachers were more likely to use technology as a content delivery tool.

Flexible technology storage takes many forms. There are huge wall units that combine whiteboards with device storage, charging capability and even mood lighting. These are great for locking away TVs and larger tools like printers. Mobile or floating storage options work well where wall space is limited and can be customised to store a variety of items; including projectors and special teaching aids, or fitted with pigeon holes and lockable drawers for BYOD schools or those implementing a phone ban.

Specific insights from industry experts

Student Locker founder Hubert van Mierlo took us through some new trends and options for schools.

Locker administration systems are an exciting new trend. School lockers have traditionally been allocated to students manually, using spreadsheets or written notes. Either school administration



Image courtesy of Student Locker

staff attend to doing this or it is a task given to personnel in the uniform shop. In other cases, this is a task care of by teaching staff, faculty leaders or even deputy or assistant principals. If payments are involved (often public schools charge a nominal fee to cover costs), the admin burden becomes even larger and convenience for parents and students reduces.

Locker administration software can take care of most of these tasks, with online reservation, automatic or manual allocation lockers and can even take payment, removing most of the manual administration.

Locker allocations can be looked up and managed throughout the year.

Johnson Peters from APC Group discussed device storage options for specific classroom needs.

A classroom needs to set the right tone for learning. Cluttered and unorganised classrooms can significantly affect the productivity of students. Purpose designed phone lockers and laptop lockers are ideal for the secure storage of smartphones, laptops and other devices. These lockers can be fitted with GPO and USB ports, so devices can be charged. When it comes to the latest trends and technologies for school lockers, options include heavy duty plastic lockers made from high density polyethylene and Acrylonitrile Butadiene Styrene. These lockers are designed to suit gruelling amounts of use in all conditions.

They are lightweight, easy to clean and are water resistant. Heavy duty steel school lockers are another option. They have been designed with heavy gauge steel and reinforced doors to withstand rigorous use, making them ideal for high-use areas. Undoubtedly, one of the main reasons people invest in lockers is to ensure their belongings are kept safe and secure. Lockers are designed to be compatible with a variety of locking systems from traditional keyoperated padlock locks, through to a large range of keyless locking options including RFID locks.

Phone lockers provide a solution for schools concerned about the distractions of smartphones. They are designed to allow students to bring their devices into school but provide a safe and secure place for them to be locked away during the school day. General power outlets and USB can be installed in each locker, so phones can be charged. Phone lockers can also be used for storing other small items and student medications such as EpiPens and asthma preventatives - which can be accessed with a master key in the case of emergency.



Lasers, cells, netball and the movie 2040!

Early this ye opening of t showcased Century lear science, ted and maths. in Term 1 for students, pr told us that highly sk

Adelaide Botanic High School, or you may remember it as the ambitious, innovative and unique first truly vertical school in South Australia, reflects on its use of Trotec Laser Cutter technology in 2019.

By Mandy Clarke,

Industry Reporter

Early this year we reported on the opening of this public school and showcased a fine example of 21st Century learning, grounded in science, technology, engineering and maths. When it opened in Term 1 for Year 8 and Year 9 students, principal Alistair Brown told us that a carefully selected, highly skilled, small team of teachers who share

the same passion for innovative research-based learning had been recruited.

He said: "As
educators, we owe it
to our young people
to equip them today
with the knowledge,
skills and attributes
they will need to thrive
tomorrow. Our priority is
to equip our students with
complex problem-solving
skills and expert discipline
knowledge to ensure they are
fully prepared for the future."

Daniel Seymour is part of that team of teachers and is one of Adelaide Botanic High School's STEM leaders. He spoke to School News about the school's use of laser technology.

He said: "I was fortunate to have used Trotec Lasers at my previous school and I remember quite

clearly the impact our first laser cutter had when it arrived back in 2011. It was a game changer for us because we were suddenly able to challenge students with new ways of designing and producing. It was this experience that gave me the confidence to invest in Trotec Laser cutters at Adelaide Botanic High School and we are fortunate to have a Speedy 400 and two Speedy 360 laser cutters."

Several projects using laser cutters were undertaken, with Year 8 students designing and producing a model of a cell... but with a twist.

Daniel explained: "Students were challenged to create an analogy of how a cell is similar to another system.









Adelaide will meet the challenges of climate change between now and 2040. Inspired by the movie, 2040, students studied the effects of urban heat islands and how rising sea levels and changes to population density could lead to changes to Adelaide's urban planning. Students designed and built models of high-rise houses and new greener public

area, volume and converting 2D designs to 3D models.

"Laser cutting is so quick that students can rapidly progress from a concept to model, as compared to other prototyping techniques like 3D printing, which involve considerably longer timelines. Materials are also relatively inexpensive, so we love the simplicity of the Trotec machines and software. A new user can pick up the basics very quickly. We rarely have any issues with the machines, and any maintenance takes just a few moments.

"Furthermore, students have been able to transfer skills developed in their STEM lesson to other

subjects and parents have been really impressed with how quickly students have picked up these new skills. We often hear parents say they wish they could come back to school themselves!"

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FACTSBEHIND THE

EXCLUSIVE AUTHOR INSIDER:

PETERI

By Rosie Clarke, Editor

In our 'Facts behind the fiction' series, School **News invites published** authors to analyse their own texts specifically for the classroom.

This term, children's author Peter Millett lifts the veil on superhero storytelling for middle grade readers. He explains why stories about power are so important for young people to read and offers some discussion points that can elevate a library or classroom book club. He writes...

Most superhero movies we see on the big screen feature characters who look and sound totally epic, and the battles they fight are even more totally awesome and earth-shattering. However, we rarely see stories about superheroes under the age of 12 who live at home with their families and lead pretty ordinary lives that revolve around school, friends, homework, hobbies and their favourite sports. We also hardly ever see superhero stories featuring flying sheep!

I created my Scholastic series The Invincibles to give Australian and New Zealand children superhero characters they could better relate to. My characters Tana, Scotty, Zinnia, Muzza and Andrea look, act and talk like they've stepped off a farm in Tobruk, NSW or jogged across a cricket pitch in Waikato, NZ. I've shaped the world they live in to represent what life is like down under. There are no sprawling metropolises or castles surrounded by steaming lava flows, there's just paddocks, cow pats, flies, picnics, skate boarding and Saturday sports games.

The five plucky heroes in my series inherit their super powers while struck by lightning playing on a disused footy field in the middle of nowhere. Mysteriously,



Photo: Michelle Simms

the powers they receive are governed by the old stadium clock which was also struck by the mega blast. Their new powers only last as long as the playing time of a game of footy -80 minutes! I used this plot device to appeal to reluctant readers who are familiar with ball sports like NRL, AFL and rugby, and also to provide a good, quick read that has a sense of completion once the final buzzer sounds.

Adding to the ticking time deadline hook, I've centred each adventure around the dynamics of a group of kids who couldn't be more different from each other.

Zinnia and Andrea have their own strong views on how their unexpected powers should be utilised, while Tana tries to coerce his best mate Scotty and new found mate Muzza into siding with him as to how things should roll. The constant friction amongst the group propels the series along, but ultimately the only workable solution is for them to have a shared common goal. The Invincibles are also surprised to discover that their powers will permanently expire unless they make a long-term commitment to using them collectively.

Despite their laid-back pre-teen approach to superhero life, the new heroes have to deal with adult-size problems and often these problems put them under considerable pressure. These high-stake scenes will resonate with primary age readers, and I've deliberately made sure that a few of the decisions taken by the Invincibles aren't the right ones. Any newbie mistakes they make can provide valuable learning experiences and help them grow stronger in the world of superherodom where there are no teachers or coaches to guide them.

Also, to help keep readers on their toes, sometimes the villains they are up against get away with things they shouldn't!



The Invincibles aren't perfect and often their solutions are more than a little messy and ad hoc. The universe the Invincibles occupy is youthful, unpredictable, quirky and always laugh out loud funny.

The graphic novel-like illustrations by Myles Lawford help draw in reluctant readers and allow them to easily develop connections with each of the diverse characters in the series.

Discussion points

Modern adult superheroes aren't faced with the dilemma about whether they should cheat at team sports or not. The Invincibles can run faster, jump higher and easily fly above their opponents. But should they use their amazing abilities for the purpose of beating normallyabled opponents on the sports field? Is that what sport is all about - winning by whatever



means you can with whatever resources you have at hand, without doing the hard yards of training or making sacrifices?

Is everybody cut out to be a superhero? What if you inherited phenomenal powers but you doubted your ability to defeat supervillains? The Invincibles aren't give time to decide about their future careers as crimefighters, because they're still experimenting with them when a national emergency arises. Would every primary school student volunteer to save the world without entirely understanding how to do it? Flying through the sky might sound crazy, cool fun, but what if your power's time limit expires and you're 500m above the ground?

Do two wrongs make a right? Tana's older brother is a bully and a cheat. In book two 'Short Circuit' Tana is given the opportunity to teach his older brother a lesson. However, in

order to teach his brother a lesson, he's going to have to turn a blind eye to his own firm set of rules about fair play, honesty and not being a bully. His decision will also potentially alter his relationships with his friends forever, so he has to choose wisely.

The baddie Tricky Ricky was made to feel stupid by lots of people after a very public misfortune live on prime-time television. Does that give him the right to seek revenge on those who laughed at him?

Was his misfortune his own fault, or was he unfairly made to look the scapegoat? Is he right to force others to suffer his same misfortune just to make himself feel better? Tricky Ricky is now a very successful individual, shouldn't he be using his great success and wealth for more positive purposes other than petty revenge? ■

The Invincibles by Peter Millett is out now, published by Scholastic.

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BOOK REVIEWS

New to the bookshelf this term...



The Glimme

66666

For age 8+

By Emily Rodda, illustrated by Marc McBride, Scholastic

"These are my favorite pages. I love the pictures because they look like the boy's sketches and I find the story interesting because of the adventure." - Aila, age 8

Genre and notes: in this unique middle-grade fantasy-adventure, illustrations propel the plot.









Some Places More Than Others

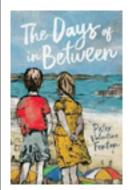
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For age 9-12

By Renee Watson, Bloomsbury

"I like the main character and I like reading about the food she eats it sounds really good." - Ella, age 11

Genre and notes: a middlegrade first-person family drama set in New York City.



The Days of In Between

0000

For age 9+ By Peter Valentine Fenton, Scholastic Australia

"My favourite chapter is 'the landed beast'. It's so exciting!" - Maddy, age 10

Genre and notes: a lyrical middle-grade adventure story that begs to be read aloud.



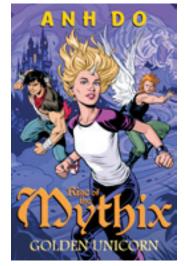
I, Cosmo

66666

For age 9-12 By Carlie Sorosiak, Allen & Unwin

"Good boy! Cosmo is so funny and now I really want a dog. - Ali, age 12

Genre and notes: written simply from the perspective of a Golden Retriever, this is a charming novel that middle-grade readers can enjoy reading by themselves.



Golden Unicorn: Rise of the Mythix 1

0000

For age 10-14 By Anh Do, illustrated by Chris Wahl, Allen & Unwin

"The mythical side plus all the action are a bit like if you mixed together Percy Jackson and Thor. I love comics so it was awesome to me and pretty easy to read." - Aiden, age 14

Genre and notes: a new venture into a slightly older age category for Anh Do, this book combines graphic novel elements with a new take on classic mystical tropes.



Serpent & Dove

66666

For age 14+ By Shelby Mahurin, HarperCollins Children's Books

"The magic is much darker and more complicated than I expected, so the stakes feel higher for all the characters. I normally think YA romance is a bit cringe but this one was actually great. My favourite part was Lou and Coco's friendship and how badass the witches are." - Amelia, age 15

Genre and notes: young adult fantasy romance packed with dark twists, this novel centres around an old French feud between witches and hunters that lives up to the premise.





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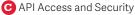
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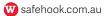






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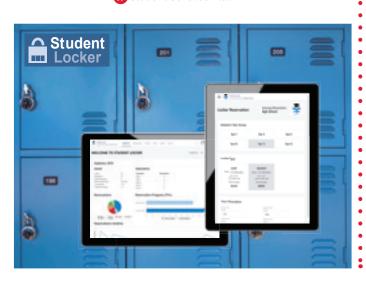
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Locker administration is often taken as a necessary, cumbersome task for school administration staff and is in some schools performed by teaching staff. It is estimated that on average time spent on locker admin is 70 to 100 hours per year. For larger schools (900 lockers or more) this can range up towards 200 hours. What if 95% of this time and 25-50% of the cost can be saved? There is now an Australian grown solution to tackle this process. StudentLocker can be used by any school and implemented with existing lockers. Set-up of the app for your school is included with the software subscription.

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Future-proofing new leaders:

OVEISEAS

tour magic

By Rosie Clarke, Editor

International travel is a gamechanger for students.

Not only do overseas trips instil self-sufficiency, responsibility and leadership in students; they also create once-in-a-lifetime real-world context for lessons across all learning areas. Trips can be incredibly focused, like a music tour to visit a world-famous orchestra or a language tour to immerse French students in Parisian culture. They can also cross subject lines and present intricate opportunities for project-based learning.

Overseas tours are big investments made by schools, teachers and parents; they require lots of planning, forethought and build up lots of excitement among students. To avoid the disappointment experienced by schools in Britain earlier this year during the Thomas Cook collapse, it's vital that schools engage with reputable and licensed travel operators. Check that your travel insurance will cover



All images courtesy of Educational World Travel

you in case of insolvency. A
British dance school lost more
than \$24,000 when its one-ina-lifetime visit to Broadway in
New York City was cancelled
because of the Thomas Cook
collapse. According to experts,
schools should avoid this type
of loss by checking which
international companies their
chosen operator liaises with and
by verifying that funds are held
in separate trust accounts.

Ask your tour operator about any unaccounted for time on the schedule. Are meals going to be catered or will restaurants be chosen spontaneously? Has this been factored into the cost? Where will students spend their free time? Tour operators will have a much better idea of what's available in local hotspots and are best placed to advise. One of our experts said that some companies in China make a profit from shopping commissions

and will encourage schools to visit commission-based shops, so be proactive about researching sister-companies.

A truly once-in-a-lifetime overseas tour is one that is specific to your students. Allow their interests and learning focus to guide your decision-making and structure a tour that is engaging and unique. To explore what tours are now possible and uncover how far ahead schools should plan, we interviewed two tour operators that specialise in planning learner-centric overseas tours with schools.

Tour tips from industry insiders:

How can budgetrestricted schools offer these experiences?

"The best thing for budgetrestricted schools is to plan ahead for two years," Morcombe Travel director Peter Armstrong advised. "Don't try to cut things out of tours because a good ground operator will give you a well-balanced tour. Cutting out bits impacts on the tour quality.





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"Set payment timelines that are realistic and work with your travel agent to get clear dates for deposits and further payments. Sometimes schools have a weekly or fortnightly payment system set up and parents are then able to see a way for regular payments rather than big lump sum ones. A lot of schools with restricted funding make students actively go out and do

tasks, work, performances, etc., to raise money, adding more value to the tour for students."

Ross Camfield from Educational World Travel suggested that local schools team up to share costs and meet the number requirements for exciting international experiences. "Many overseas STEM programs have a minimum number of students required. For example, Kennedy Space Center requires 24 students to participate in the ATX Astronaut Training and Mars Base 1 experience. By combining local schools into larger 'Planet Groups', minimum numbers can be reached and students don't miss out on the experience. This can be done on a variety of tours so they are accessible to students nation-wide and

keep costs down." What styles are available for schools looking to organise a unique tour?

Ross described some of the unique options available: "Ivy league university tours are increasingly popular for students to discover prospective universities in the US! Language tours around Asia and Europe are popular and versatile.





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■ Music and dance tours can include performances at Disneyland, Universal Studios and Knotts Berry Farm. Arts tours feature Broadway workshops, Stella Adler acting workshops and graffiti tours in downtown LA. STEM tours are immersive and varied, with activities like lunch with a NASA astronaut, studying the physics behind rollercoasters at a theme park or the technology behind blockbuster movie-making in Hollywood, to taking part in a rocket launch simulation at Kennedy Space Center, Cultural tours combine authentic experiences in new countries with sightseeing like walking across the Golden Gate Bridge or visiting world class galleries.

Schools like to incorporate outdoor activities like snowboarding lessons, canoeing or even a sporting clinic."

Peter shared some of his favourite tour options for schools: "Just about anything is possible! There's the annual China Stars International Friendship Games in April, a great option to feature boys' and girls' soccer and basketball, plus girls' hockey. Bespoke sports tours are also possible. Music tours, either to the Tutti Youth Music Festival Beijing (the next one is in July 2021) or bespoke tours visiting a number of cities. Cultural/historical and business studies tours are also available and these generally travel to a number of cities."



What is the biggest learning experience students can gain from an overseas tour?

Peter listed: "Patience, failure as an opportunity for success, wisdom, communicating without language, learning to dream big, and taking a break from Facebook! When you spend time with different cultures and see the kindness of strangers, it breaks down stereotypes. You learn that people are fundamentally good.

In fact, you realise that you actually share more things in common than what you could imagine. Most people want a better world, peace and happiness, and they are willing to reach out to help their fellow human beings. Travel can turn introverts into extroverts, bring confidence to the meek, and create adrenaline junkies out of thin air; it pushes your physical and mental limits, forcing you to

quickly adapt to uncomfortable and unfamiliar situations."

Ross noted: "Students are learning life skills like patience, cooperation, teamwork, budgeting and time management (that is a big one!). But most importantly: they get to experience learning in ways that are just not possible inside a classroom." He shared some thoughts from Berwick Grammar teacher, Helen McDonald who spoke about her recent overseas tour: "The fact that we were actually planting and measuring products of plants and that it would contribute to Mars research made the whole experience completely authentic. A lot of the other activities we did were really great too - the students were really engaged despite the length of the programs. "There was diversity, lots of problem-solving and teamwork, so the whole STEM focus was there - the space tour wasn't just about space." ■







By Rosie Clarke, Editor

With the creeping focus on real-world context, LEOTC has never been so explorative, engaging or exciting.

The sky's the limit now for learners, so long as schools get creative with how to integrate learning areas. Before heading out on your LEOTC adventure, have students pitch projects or assign tasks that can frame their learning.

Arts and humanities

What if students had to design an art piece, performance or presentation for a local charity or community group?

An excursion to an arts centre, theatre, gallery or festival suddenly becomes important research. Students can prepare questions for show directors, actors, artists and art historians about how to design and market a show. They can follow-up a visit by reviewing what they've experienced, noting things they would do differently and why.

How can an art exhibit impact a community? Older students could take a journalistic approach, interviewing members of the public and compiling a zine or class newspaper filled with different stories, reviews, photos and content from the trip. How about a film project? Factoring a long-term project into your LEOTC plan for 2020 is a great way to combine subject areas and meet curriculum goals.

STEM

Setting students up with the right expectations before a trip can make all the difference. For STEM-related activities and excursions, students could be tasked with replicating something they are about to see, or designing a display for a STEM fair based on what

they've learned once they return Sustainability is a huge curriculum drive: why not task students with scouting as many examples of sustainability in action as they soak up a new city. Assign students jobs: they must brainstorm sustainable solutions to a problem they come across on the trip, or find out about a solution that has/hasn't worked.



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School groups do not always need to travel far to organise effective and engaging external activities. Organising regular visits to a botanical garden, lake, river or other scenic locale can provide valuable learning experiences. What do you observe during different seasons? Do animals migrate? What happens to the shore? Students can visit a public

garden, analyse the soil and plant-life, then take what they have learned to create their own garden back at school.

Facilitate student learning about their local histories. Can you reach out to Indigenous leaders in your community? Engage students in where they are from by learning about the history of the land their school is built on. Hearing stories in local languages about local histories from



community leaders can inspire young learners and strengthen intergenerational bonds.

Do you have a choir, band or drama club? Organising local visits to community centres, church or chapel events, fundraisers, etc., can be a valuable way to boost students' confidence and skills. Gigs can raise the profile of your school and even raise money to fund more arts programs and resources at your school.

Getting to grips with rock climbing, abseiling, biking, navigation and a range of other outdoor skills can benefit students of all ages. Outdoor education programmes may lead students to apply for prestigious competitions and discover new career options. Many of these programmes allow students to achieve unit standards that will help them reach new heights along their education pathway.

Australia's leading dance program for teachers & schools...

As we speed into new educational curriculums, values and processes for 2020 the subject of Dance can often be left behind as a 'wish list' item for schools.

With funding, time, subject priority and space as fundamental reasons to push Dance further down the list of curriculum inclusions it's important to reflect on how Dance can support rather than drain a school of it's resources.

We are all aware of the physical benefits of dance but the lesser known and talked about mental benefits of Dance are equally as important. With a growing number of students identifying with anxiety, depression, bullying and body image distortion Dance holds a key role in the crosscurricular space. Finding songs

that communicate an idea that is appropriate and important is a good starting point - a great example currently is Guy Sebastian's 'Choir'. While this deals with the loss of a friend it also highlights the joy in celebrating your friends here and now.

This lesson can be turned into singing the song, creating student driven joyful movements to the chorus and exploring the theme of death through visual arts explaining the journey of emotions from sadness through to joy. While we highly encourage our students to be creative, it's time as educators we value creativity.

Dance is one very worthy subject in the Arts and PE spaces so put your favourite song on, have a lounge room boogie and feel how your day just got a whole lot better in both mind and body.

Call us today for more informtaion please contact dale@reded.com.au or visit www.reded.com.au



A trusted name in dance delivery REDed provides schools with excellence in class management, curriculum aligned dance classes and inclusive, creative sessions to engage all levels of interest. The REDed team are not only trained dance instructors but experienced

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choreographers which offers your school flexibility and diversity with your dance needs and outcomes. With a strong focus on empowering young students to be confident in their bodies and minds, the **REDed** team are keen and ready to chat with you.



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Get out more!

By Kate Jackson

As the school year draws to a close and 2020 planning begins now for how to engage students in meaningful LEOTC experiences, it's worth bearing in mind that those decisions could just be fundamental in shaping their future lives.

Place-based learning is out-ofclassroom learning without the seven-hour bus journey and inevitable front seat vomiter. It's about fostering a students' love for their environment and a deeper understanding of where they live.

They may only be a few feet from their desk but crouched on a footpath using technology to document an experiment on how ancient fire building techniques work. Or they might be water testing along the banks of the local creek. It costs nothing but teaches children everything about getting their hands dirty with STEAM (or history, or geography).

Staying over

While Australia offers numerous opportunities for out-of-classroom learning and sporting tours, finding somewhere to accommodate large numbers of school children can be an issue. Youth hostels and holiday parks have cottoned on to this and designed policies and procedures to take the headache out of organising group travel for under 18s.

Many have developed safety and security commitments which guarantee to separate students by gender where required, ensure shared rooms



are exclusive to one school, and even allocate a staff member to brief group leaders on safety and be accessible 24 hours a day. Some accommodation providers also operate closedown procedures and fire security checks nightly.

Holiday parks offer the obvious added attractions of pools, jumping pillows, playground and games rooms and will accommodate children and staff in appropriate ratios in safe and budget-friendly cabins and camp sites.







RAS Education Programs

Hands-on learning outside the classroom

The RAS has a wide range of excursions, workshops and Teacher Professional Development experiences perfectly placed to assist schools with agricultural journeys beyond the classroom and into the future.

Programs include Primary Schools Preview Day, Sydney Royal Easter Show school excursions, Farm Days and a new Heritage Centre Tour.

To find out more about our year-round programs, visit www.rasnsw.com.au/education.

Education outside the classroom activities for 2020

Taking education outside the classroom by attending a school camp enriches each student's learning and growth.

Students come back to school having spent their time working as a team, growing their confidence by stepping outside their comfort zone, developing new skills and attempting new challenges.

Experiencing country life and connecting with nature has been shown to decrease stress levels, and also support emotional and physical wellbeing.

Alexandra Adventure Resort, located less than 2 hours form Melbourne, provides fun and adventure for students and teachers alike to test their abilities, face their fears and just generally have a fantastic experience.

As a school camp, we are passionate about ensuring every student heads home from camp



with new confidence and amazing memories that will last a lifetime.

The fresh country air, scenic views, chef cooked meals and comfortable beds are only part of the experience. We have spent several years continuously adding activities to ensure a fun and rewarding experience for all ages. Students participate in a wide range of activities during their camp and by the end of their stay, will have completed 10 onsite activities.

These range from our harness activities including high ropes, leap of faith, flying fox across our beautiful lake, crate stacking, rock climbing and giant swing, to students teaming up and working together on strategy planning to compete against each other on our battlefield with Laser Sport.

The fun continues as students can enjoy orienteering taking them around our beautiful property, learning how to use maps and navigate unfamiliar terrain. They race against other teams to find

answers to the clues, using their problem-solving skills. Other fun activities include canoeing on our beautiful lake, raft building, archery, ga ga ball, disc golf and low ropes initiatives. Want more? Try our inground swimming pool, tennis court, football/soccer ovals as well as table tennis and foos ball, all accessible under cover.

Our team of Outdoor Education instructors are ready to take your students on the most rewarding adventure of a lifetime. Their years of training and experience allow them to not only safely supervise and run all activities, but help all students gain confidence to try new things with a supportive team guiding and helping them discover their strengths!

Have you booked your school camp yet? Why not bring your students on the camp of a lifetime here at Alexandra Adventure Resort. Ring now to book on 5772 1409!

www.alexandraadventureresort.com.au



Tucker Bush gardens bring food & culture to Perth schools

Bushfood gardens bring our native foods and flavours back into Australian lives.

For generations, native bush foods sustained Aboriginal Australians but how many kids today know about the thousands of edible plant species at our disposal? With a Tucker Bush garden, your students will learn to be self-sufficient, get their hands dirty and build knowledge, understanding and confidence in their local heritage and cultures.

What is the Tucker Bush Schools Program?

We launched last year to help primary schools around the country get their own bushfood garden, and to help students develop 'nature smarts' along with awareness of Aboriginal culture. If your school needs funds, we even help by providing a fundraising platform on our website for your wider school community to



support your bushfood garden project.

There are few things more rewarding than to see their interest blossom from even one learning session. Our Tucker Bush Schools Program includes:

Tucker Bush Plant school garden starter pack

This is a collection of 20 Tucker Bush plants delivered to the school. Plant types may vary, as we select the best species for planting based on location, soil, climate and season. We then have a planting session with the children.

Bindi Bindi Dreaming one-hour educational workshop

This is an educational incursion to the school, run by Bindi Bindi Dreaming. Schools gain knowledge and expertise about the Noongar Six Seasons, what plants and food and medicines would be in each season, an introduction to Noongar culture (traditional and contemporary).

Education Learning Resource

This resource has been designed to work alongside the Tucker Bush garden. A variety of Australian Curriculum links have been used to produce these lesson ideas.

Marissa Verma from Bindi Bindi Dreaming said: "For too long a time, Aboriginal people have been disconnected from the lands and waters. It's vital that we, as the first Australians, share and teach our cultural knowledge of such an enriching culture that has existed since before recorded history. We now need to reconnect to all become caretakers.

"I believe every child and their parent has a role in taking care of the environment. To bring back our bushtucker species will be amazing. Together, we can make it happen."

If you would like to find out more, or to see if your school could participate in the Tucker Bush schools program, visit tuckerbush. com.au/schools-program.





Image courtesy of The Outdoor Education Group

By Rosie Clarke, Editor

Finding the right outdoor education program is a task that's as nuanced and important as your students.

Over the years, educational research has shown the importance of outdoor education for learners of all ages. A long-term UK study penned by Sally Kendall and John Rodger in 2015 followed 60 schools over seven years. It found there were significantly positive impacts on learning and wellbeing for students who took part in programmed outdoor education experiences like camping, school exchanges and constructed partnerships with outdoor education providers. Results from focus groups in the study also showed significant relationship building between peers and also between teachers and students.

"Seventy-one percent of secondary students felt that," according to the study, "their teachers had a better understanding of how they liked to learn best" as a result of residential experiences like camping. The report read: "Given that only 56 percent of students felt that this was the case prior to the residential this can be seen as an important finding." For this reason, class teachers should consider collaborating in on the planning and design process for their school's outdoor education



Image courtesy of Wilderness Escape

program. It should complement and enhance your overall curriculum; building stronger bonds with learners will help you to facilitate their learning.

Moving the classroom outdoors promotes engagement, builds confidence, teamwork and creates connections. Allowing students to explore a new environment, applying what they have learned in the classroom to a real-world problem or scenario is critical. It teaches students that there is purpose to what they are doing in school and gives them the confidence to know they are equipped for the big wide world and already have more skills than they realise to offer their

community as a problem-solver.

The Outdoor Education Group's National Head of Curriculum, Brendon Fogarty explained how schools can lead student-centric learning.

Educational outcomes must be the main focus of each program. With a clear rationale behind each element that comprises the program curriculum, the creation of an educational overlay and matrix across an outdoor education program allows for sustained positive outcomes. A key consideration in program design includes links to the school's strategic priorities. In particular, creating engaged and resilient students; providing a learning experience rather

than a recreational experience; creating an innovative and integrated learning experience.

A contextualised approach: rather than being the foci of outdoor education, the activities and locations are tools for delivering real educational outcomes.

Current educational trends highlight the need for school curricula to not only focus on the pursuit of academic success but hone in on skills that encourage lifelong learning. In particular, those skills that build upon personal competencies and character qualities. Often these skills are referred to as *real world* skills that help students grow and thrive. They include problem-solving, leadership, critical thinking and teamwork.

Programs now focus on wellbeing, enabling students to develop a profound respect for themselves, each other and the natural environment. Students are challenged to explore their strengths and weaknesses; building upon their capacity for resilience, taking responsibility for themselves, managing their emotions and behaviours. They actively engage with their immediate community and bond with peers and significant adults.

Schools also place greater importance on the collection, analysis and interpretation of information about students to inform teaching and learning outcomes. Designing programs that incorporate wellbeing

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concepts, mental toughness measurement tools and character-building in wilderness settings, can change mindsets and develop transferrable skills.

Wilderness Escape General Manager Luke Duncan shared advice for schools looking to diversify their outdoor education offering.

There is a current trend towards unstructured nature play and healthy risk taking for younger primary students. The lack of physical literacy and risk awareness amongst today's youth has inspired the resurrection of children getting out into nature to get dirty, climb trees and explore outdoor environments without set guidelines and structure.

At a middle school level, the outdoor education program of tomorrow involves the incorporation of digital technologies within the learning environment. The move from orienteering with maps and compasses to geocaching with GPS coordinates is an example of this. It helps promote engagement with the 'digital

native' community whilst still achieving similar outcomes. Orientation programs at the start of the school year are always popular as activities have a strong emphasis on team work, communication, leadership and breaking down social barriers.

With extensive research being done on the mental health benefits of outdoor education, there are more outdoor education program designs that focus on positive psychology and wellness. The sense of achievement that students face when they overcome challenges through outdoor education helps increase positive emotion, which in turn can increase selfconcept, self-confidence and the ability to cope with adversity.

If outdoor education and year level camping become part of the school culture, the entire community takes ownership. If school leadership does not have 'buy in' then parents may struggle to see the value in a camp experience. Schools need to make the experience a compulsory part of the curriculum, not an optional extra-curricular activity. ■





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They are outstanding and will show you if provided the chance. Experiential learning in the outdoor gives them that chance.

What's the matter with kids these days?

The question often posed of the current generation of children by parents, teachers, and contemporary media is laden with a sense of nostalgia for days gone by and contempt for the conveniences of 21st century living. The kids of today have more problems, less character, and diminished levels of self-control than they did 50 years ago... right? Well, the answer is not so straightforward, and this growing perception of deficits is stigmatising today's children. The Outdoor Education Group provides experiences for over 40,000 young people every year and it is a privilege to see the ability of children to outperform expectations when given the opportunity.

Protzko (2017), a researcher from the University of California, analysed results from 50 years of the famous psychological measure of childhood self-control – the "marshmallow" test – to gauge how today's children compare. In this longitudinal study, it found correlations between a child's ability to delay gratification and a host of positive life outcomes such as academic achievement, healthier body weights, lower likelihood of substance use and as a predictor of future success.



Brendon Fogarty,National Head of Curriculum
The Outdoor Education Group

Surely, the kids of today who crave constant stimulation from digital devices would struggle even more than previous generations to resist a treat of their choice? When 260 experts in cognitive development were polled prior to the data being analysed, 84 percent confirmed our deficit view by believing kids these days are getting worse or are no different. Contrary to this prediction, the study found that kids these days are better able to delay gratification. Furthermore, the significance of the increase in delayed gratification coincides with the known increase in mean IQ (Blair, et al., 2005) seen over the same period.

Clearly, societies, families and schools are doing something right. At the recent Positive Education Schools Association (PESA) conference, renowned psychologist Dr Martin Seligman stated, "undeniably the world has gotten better over the last 100 years" with reduced suffering, access to education and advancements in technology. However, there are

areas where human improvement has not changed, namely in children and youth rates of anxiety and depression. As the founder of the Positive Psychology movement, Seligman believes that teaching skills to strengthen people to prevent problems is key to future success. Many schools are adopting Positive Education strategies that ultimately focus on nurturing people's strengths, rather than focusing on correcting identified weaknesses.

From a broader societal perspective, by focusing on the perceived deficit of children, we consciously and, or perhaps, subconsciously shield them from exposure to challenges and risk due to a fear of failure. This fear ultimately hinders their ability to flourish and develop selfefficacy. Experiential learning in the outdoors seeks to bridge the gap by providing real-life experiences in a safe learning environment, with elevated levels of perceived risk and varying degrees of comfort. The accelerated learning opportunities offered through these experiences, often if not always, require critical thinking, problem-solving and decision making to achieve an outcome in a real-life setting. In this unmanicured environment, mistakes will happen, and learning will follow

Experiential learning in the outdoors bridges the gap between the theory taught in schools and the practice lived in the natural environment. By moving beyond the theory to practice, students have proven to be able to retain concepts and ideas, ultimately leading to increased academic achievement

(Education Endowment Foundation, 2018). The duality of learning and teaching among peers exists which promotes engagement, relationship, and meaning: critical tenants to wellbeing (Seligman, 2012, PERMA+). It is continuously impressive that students indicate on post-program surveys that their peers have the second most significant impact on their experiential learning experience, exceeded only by the educator facilitating the experience.

Further research in this area is needed, however, schools are piloting programs which incorporate contextual wellbeing concepts, Mental Toughness Measurement Tools and character building journeys in semi-wilderness settings for an extended period to give children and youth the opportunity to shine when faced with challenges. The skills learned through experiential learning in the outdoors can produce demonstrable mindset changes and most importantly be transferred to life afterwards.

Seligman concluded his keynote at the PESA conference with the notion that: "We are not prisoners of the past. We were born yesterday. He said that "we can shape the human future" to challenge the norms of psychology. Similarly, the need to question the belief that children today are substantively different and necessarily worse than previous generations is limiting.

When given the opportunity and support, kids these days will perform the same way they always have, at or above the level to which the bar is set. Kids these days are shaping the future. *

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API Access & Security; ready for a new age of seamless commercial solutions



For over 50 years, API Access & Security has been a leading name in the Australian security industry. Like many other industries, the security sector is changing.

Technology is evolving faster to meet customers' growing number of security needs. With a fresh new look, 2019 marked a change for API, as we draw on our half-acentury of expertise to develop new technologies, add increasing value to our customers, and continue to evolve as an access and security leader for modern Australia.

50 years of providing security to Australian's and businesses

As one of Australia's leading commercial access and security providers, API delivers a range of products and services to all sectors, including education.

With access to leading global brands, a nationwide specialist and a 24-hour, 7-days-a-week backup service, API is in an ideal position to support the education sector with leading technology and solutions to ensure the safety and security of students, staff, visitors and property.

For decades, many facilities around Australia have relied on API to provide supply, installation, maintenance and round-theclock support, including schools, hospitals, aged care facilities, banks, fast-food chains and councils. Whether it is keying systems, locks and hardware, life safety devices, CCTV, automatic doors, perimeter

and barrier security systems, electronic locking systems and safes and vaults, API can package up a full access and security solution in one place.

Moving with a changing world; providing scalable and futureproofed solutions

API understands the need for education facilities to provide a safe and secure environment for their people and property. The solution must be able to change with the needs of the facility, as well as provide simple access for those who require it. Access to a number of Australia's leading providers of security hardware and software, and a team that is trained and certified, means API can adapt and scale according to facilities' needs now and in the future.

Access security and technology has been evolving to meet the needs of the user and increased security threats. From electronic locks, CCTV technologies and access control systems, API has access to the most recent and leading-edge technologies available in Australia.

Where do I start providing secure and safe access to my facility?

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We may have a fresh new look, but for over 50 years API has been securing Australian homes and businesses.

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Securing your school perimeter against vandals



By Rosie Clarke, Editor

Theft and vandalism plagues schools around the country.

Just last month, \$16,000 of damage was caused during a break-in at Wahroonga Adventist School. Meanwhile, Port Hacking High School in New South Wales has been dealing with the fallout after vandals graffitied obscenities across the school oval during the holidays. Geelong police even took measures to warn schools that they are more susceptible to break-ins during the holidays as vandals look to steal computers and other devices.

Preventing a breakin comes down to security procedure and protocol. Particularly as schools invest in digital technologies, outdoor learning aids and furniture designs, security needs should be reassessed regularly.

The first step is risk assessment: some state departments and many security suppliers can provide a security assessment that is tailored to your school. If your school meets certain risk requirements, it will qualify for more government funding to install intruder alert systems and more. Alternatively, if your school has suffered property damage in the past, the government may pay for a formal security audit. For schools that don't meet the criteria for additional funding, you can undertake your own audit by following the risk management tools provided online by your state department or use a licensed security consultant.

Once risk areas have been identified, there are a multitude

of ways to strengthen security: clearly signposting alarm systems, CCTV and security patrols is a great way to help deter vandals and thieves. Experts suggest placing your signs behind a seethrough fence, or somewhere clearly visible but difficult to deface or hide behind.

The sudden bright lights may also trigger neighbours to keep an eye out or call police. Professionals should be brought in to install the lights in places that will be most impactful and most difficult to deface or disarm.

One of the most effective ways to secure a school is to establish a strong perimeter.

With a solid boundary fence, onlookers will note that the school is secure and students, parents and teachers can feel safe during term time. Fencing is popular, as trees or landscaping can be scaled and walls feel too imposing. There are a variety of



Access control systems offer a high level of security and can integrate well with secure fencing.

Security systems combine electric locks with CCTV control, alarms and boundary fences, plus additional functions like automated door locking, pin code access, keycards and fobs.

Before you install a new system, check out what works for other schools and plan on-site visits. It's a good idea to plan an alarm response strategy that alerts a designated security guard about a possible break-in. If a staff member is scheduled to respond they could be put atrisk, or may not respond quickly enough to head-off vandals.

Industry take:

Eclipse Security expert, Greg Flood explained how access control systems help schools.

"They dispense with the need for conventional keys and instead use the latest RFID contactless key cards. These can be programmed to allow or restrict access to different parts of the school. Access can be restricted to different times of the day or even days of the year, i.e. no access during school holidays. Teachers, for example, have cards that double as photo ID cards allowing them to pass freely about the school, whereas others such as visitors or cleaners for example may have access only to certain parts of the school and at certain times.

"The latest addition to access control systems is the advent of mobile keys using smart phones to access areas. Mobile keys can be sent and revoked without the end-user having to pick up a card from site, they simply open the app on the phone and present it to the door for access."

Greg offered some tips for schools looking to install CCTV: "Identify key areas of activity and risk. Focus on the functionality and limitations of CCTV systems, privacy regulations, signage, and the impact on schools' existing network infrastructure."

API Access and Security expert, Nick Flinos advised us on reducing risk on school grounds.

"Within a school environment, CCTV supports security audit trails and allows schools to review incidents. It comes



down to reducing risk and increasing safety awareness. From an installation perspective, CCTV needs to be easy to use and access the footage.

Schools using access control systems can manage their entire building or campus from one location by receiving alerts when certain doors are opened. You can view and respond to door alarms, lock down facilities and classrooms in the event of a security threat, and get alerts if a door is left open."

He added: "Not only can you limit access to a building but to rooms within the building too, including storage closets, server rooms, staff rooms and classrooms. Control who needs to go where and at what time. From letting visitors through your access points to allowing students to access sports rooms at selected times. Switch from having multiple keys or security guards to controlled swipe cards that one person can monitor for your entire school.

Finally, "If a key gets lost, you will have peace of mind that your premises will not require a complete new key system installed because access control technology allows you to remove that card from the program as no additional cost."

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Be safe & compliant

By Rosie Clarke, Editor

Do your storage solutions comply with Australian Standards?

WorkSafe found several compliance issues with hazardous substance regulations in several schools in WA. When news broke of this earlier in the semester, WA primary schools were put on notice about 'worrying levels' of workplace safety issues. It was a timely reminder for all Australian schools to make sure they are compliant.

Hannah Barry, reporting for WA Today, said: "Inspections carried out at 53 primary schools saw 239 improvement notices handed out to different schools throughout the state. More than half related to the use of hazardous substances on campus, and ranged from problems with labelling chemical substances to failing to provide training to cleaners, handypersons and gardeners who handled the materials."

It is an important reminder for schools to be proactive in making sure their storage facilities meet Australian Standards.

Health and safety refresher:

Make sure *all* staff are trained and up-to-date on the hazardous substances they use, how chemicals and sharps must be labelled, stored and disposed of.

Check that your cleaners, caretakers and gardeners are complying because they were singled out by the WA inspectors for their lack of compliance.

Chemical storage is essential to the health and safety wellbeing of your school and you need to have a management plan in place.

Create and update a register or list of hazardous chemicals around your school and maintain current *Safety Data Sheets* (SDSs) as these provide information on chemical identification, chemical stability and reactivity to help with separation, segregation, storage and disposal.

Note: chemical suppliers always include a free SDS from the manufacturer or importer of every chemical.

Label accurately, because incorrect labelling of chemicals is a tragedy waiting to happen.





Do you have a chemical storage management plan in place?



Access to hazardous goods should be restricted to authorised and trained personnel only and should be carefully organised and securely stored in suitable locked cabinets. Separate incompatible substances by distance or a thermal barrier.

Industry viewpoints:

We spoke with Kevin Lampard from Global Spill, about safety protocols and compliance for schools.

"A common mistake we see is storing aerosol cans in flammable liquid safety cabinets. Many people see a flammable diamond on the aerosol can but don't realise flammables can be either liquid or gas (or solids, but that is a long story for another day!). Flammable gases and flammable liquids have different classifications and very different storage requirements; primarily to do with ventilation,

which is why aerosols should be in a highly ventilated cage as opposed to a safety cabinet.

"Don't swap storage facilities out of convenience. For example, you wouldn't store corrosive substances in a cabinet designed for flammable liquids. A wellmade, AS-compliant corrosive safety cabinet should include internal surface coating for long-term protection in corrosive environments. This will protect against any drips, leaks, spills or corrosive vapours and will not react/erode in the same way that other surface finishes may.

"Remember that health and safety requirements tend to be specific according to the chemical. A good starting point is to refer to State or Territory health and safety requirements on the government education department websites. E.g. the QLD education department publishes an easy-to-follow factsheet on GHS compliance."

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Global Spill & Safety

Class party palooza: Dos, don'ts and lazy last-min recipes

By Rosie Clarke, Editor

With Halloween just behind us and Christmas around the corner, Term 4 hosts a lot of class parties.

Whether you've been saddled with bringing a plate to the staff send-off or you want to celebrate the end-of-year with your students, coming up with allergy-friendly, exciting party food to bring along can be shockingly stressinduced! We compiled a few simple recipe ideas to help you brainstorm. But first, here's some great advice for organising class parties we heard from teachers this year:

To-dos and no-nos

- Host your class party outside with a few sports games - it'll contain the mess and give students a sugar outlet.
- Pick a film that ties in with your class project. Particularly for senior students, movies can be just what the doctor ordered post-exam. Have students vote on a film or encourage them to bring in food and drinks that tie in with the theme. If you've been looking at Australian identity in class, why not bring in Australian foods or family recipes?
- Roles and teamwork: turn the class party into a



mini project, with groups working on the playlist, menu, activities, etc. How about a class showcase? Shake things up by inviting students to present the piece of work they are most proud of this year.

Chill out zone. Some students will find the thought of a class party anxiety inducing, yet social events are a huge part of life! Having the class agree to a party schedule ahead of time (write it up on the board!) can allow these students to emotionally prepare. Can you include some meditation or mindfulness in the class party plan? Practicing mindful eating or encouraging a gratitude circle can be a great way to ease social anxiety.

Disadvantaged students may not be able to bring anything to a class party. Keep the stakes low and focus on activities students can do to encourage togetherness and celebrate how far they have all come along their learning pathway!

Snack time suggestions:

Healthy spring rolls. These things are fool proof: Pick up some rice paper and roll together turkey or tofurkey with colourful veggies for a healthy spring roll alternative. Slice them into disks or serve them whole (make sure they are mini). Mix together cranberry sauce and soy sauce for a yummy Christmas dip that's easy to transport. Outside the classroom you can sprinkle finely chopped cauliflower and a little bit of salt over the top for a snowy illusion but less mess is best for a class party!





The Grinch stole all the gluten.

For a gluten free savoury option, slice some cucumber into long strips, layer with lunch meat, cheese or hummus and roll into fun little pinwheels. Cauliflower pizza bases are great too: use a festive cookie cutter to make mini pizzas after you've added toppings.

Santa hates trifle. Fill clear plastic cups with layers of red berries, mini marshmallows and popcorn for a mess-free trifle-inspired snack you can assemble in a flash. Draw some Santa faces on the cups (or invite students to draw their own at the party), throw the snacks into Tupperware the night before and you're all set! These are perfect for movie-watching.

Turkish delight (kinda). This is an allergy-friendly option you can pull together in your sleep that takes everyone right back to Narnia. First step: pick out a fun mold! Soak some gelatine leaves in cold water while you boil a different pan of water with castor sugar and vanilla extract. You want a ratio of about five gelatine leaves per cup of boiling water. Drain the gelatine then add it to the pan and dissolve. For a vegan



option use agar agar powder instead of gelatine. Add a few drops of rose flavouring (lemon or orange also work well!) then let everything cool as you stir. Pour into your fun mold and let it set. Pop them out and they're ready to enjoy! Increase the amount of gelatine and experiment with flavours if you want to make some gummy bear equivalents.

Chocolate-dipped anything.

Dip some marshmallows or fruit in melted chocolate (slices of orange or apple would great!).

Decorate with sprinkles or edible glitter and let them set. These are a good alternative to skewered fruit kebabs. If dairy or chocolate is a no-go in your classroom, try dipping in honey and rolling in coconut or cereal. You can also do this with biscuits, or make cake-pops from a boxed cake or brownie mix (no-one will ever know) and use straws instead of skewers!

Reindeer bliss balls. Any basic bliss ball recipe will do: Throw 12 dates, 1 cup of coconut and

about 2 tablespoons of cacao powder into a blender: add oats or cashews slowly until you have a gritty paste. Roll them into small balls, cover in some desiccated coconut and add the decorations! Use two sultanas and a red lolly or half a cherry and two pretzels to turn them into little Rudolph heads. Add some cinnamon for a more Christmassy flavour, or trade the cacao for lemon (half juice, half zest).Taste as you go and it's impossible to mess these things up! ■

























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By Mandy Clarke, Industry Reporter

By Term 4, everyone feels a bit overwhelmed.

Is your classroom clutter at its worst? Have school bags, coats, kits and general tat started to pile up? Has the creeping stench of old lunchboxes finally reached the oasis that was your desk?

You might be tempted to take inspiration from current decluttering queen and Netflix star, Marie Kondo. Kondo's KonMari Method has helped millions of people around the world put their homes in order, and teachers are finding that

a Kondo'd classroom can help "spark joy" during the pointy end of 2019. Simply throw away any loose ends that don't bring bliss, and organise everything else with ease.

Whatever the method, finding a way to keep a classroom clutterfree is essential for wellbeing. Keeping things tidy reduces stress – there's a reason we label kids' hooks, rack spaces and cubbies with their names – knowing where stuff lives makes us feel be more comfortable. More organised spaces produce mental clarity and calmness. When youngsters get into the habit of 'putting things back' in their homes, they know where

Could a clutterbug clampdown become a fundraising opportunity for your school?



to find them next time. When students have a hook or rack space for their bags, they don't have anxiety about where they will leave their stuff or forget where they put their bag.

The "cult of Marie Kondo" (as The New York Times called it) began with a book, The Life-Changing Magic of Tidying Up and reached stratospheric heights this year as people caught on and began making charitable donations of items that were cluttering up their homes and workspaces. Could a clutterbug clampdown become a fundraising opportunity for your school?

Encourage staff and students to bring in boxes of clutter for donations and stage a rummage sale!

Spend 10 minutes with

students piling up classroom clutter then ask them to find a place for anything they want to keep. You can categorise and organise items by size, using clear storage containers so that everything is visible and easy to find.

Are students constantly losing their hats, backpacks and lunchboxes? Is everything constantly strewn across the floor? Its unsightly, and a hazard. This is where school bag racks or bag and hat hooks become a game changer. They provide quality solutions for student storage. Particularly handy for primary school classrooms, these items are easy for the kids to use, encourage them to take responsibility for their own mess, and most importantly reduce fire and trip hazards.



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■ Modern hooks are increasingly popular, aesthetically pleasing and offer a very simple, spacesaving solution. They can accompany or replace existing storage and are suitable for all rooms, indoor and outdoor spaces. Hooks specifically designed for schools are preferable as they have been designed to avoid protruding edges and rusting metal. Safe, colourful and stylish they are great way to keep bags and hats off the floor. Bag racks can be portable or fixed, indoor or outdoor, but make sure whatever you choose is designed robustly for schools and safe for the job. They need to be installed at a safe height for each age group without encouraging climbers! They also need to be sharp-edge-free, stable and secure. Can the kids stow and retrieve their stuff quickly and safely? Steel frames and powder-coated bases are best for longevity and powder

coated steel helps protect against the elements.

Industry viewpoints:

We spoke with Safehook's Len Hyde about popular options and trends for schools.

"Early bag racks were considered an inexpensive alternative to lockers and were either built by the school GAs and/or purchased externally. Racks varied in size and shape and were not much more then rubbish collectors that doubled up as bag stores. Today's bag racks have come a long way. Fully welded products are preferable and should be installed in such a way as not to move or fall when fully loaded. Powder coated frames are far better than wet painted frames as they tend to offer a harder surface and are less likely to chip, etc.," said Len.

He added: "However, hooks are certainly the better option. They are less expensive, less invasive of space, easy-to-clean and easy to maintain.

Hooks can be fitted in areas that bag racks cannot. Many schools are removing bag racks as they are costing them a fortune in cleaning and take up too much space. The old enclosed bag racks and lockers are the biggest culprits.

"Why fit a hook? Properly designed hooks are made from weather-resistant UVstabilised poly propylene. The material used to make these products is tough, won't rust, doesn't need painting and is made to endure the worst that the Australian outdoor environment and kids can throw at them. The hooks have been designed to minimise injuries associated with falling or being pushed up against them with no sharp edges or impact points. Yet there are still plenty of people that will fit a metal hook. Metal hooks can be sharp, expensive and in some cases brittle, and while some may look the part in some commercial environments, many lack the right attributes to make them school-friendly.





Like most products, there are good designs and bad designs and sorting through the mire of sales info or lack of info is never easy."

Johnson Peters from APC Group spoke to us about the benefits of bag hooks as an alternative to bag racks. "Schools have traditionally opted for bag racks to store school bags. However, wall hooks are ideal for placing in corridors and classrooms for the safe storage of bags and to reduce tripping hazards. Unfortunately, racks require floor space and can also be climbed on causing an unsafe



environment. He said: "If placed outside the classroom, they take up hall space which can be a nuisance when hundreds of students are racing back to class. If used inside, they take up room which could be better utilised for classroom activities.

"School bags also have the tendency to get misplaced when stored on racks with countless other bags dumped on top or placed in front and they sometimes fall off causing

damage to the contents of the bag. Wall hooks are a space-effective, aesthetically pleasing solution for storing bags, jackets and other items. When selecting a hook, always look for something safe.

"Recessed hooks are recommended over hooks that protrude, because they do not dangerously protrude into the space frequented by students."



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Maintaining school grounds shouldn't be this hard

By Rosie Clarke, Editor

A stellar school mower might not be the first thing parents consider halfway through a campus tour...

But an unkempt sports field sure diminishes confidence in a school's prowess.

If school leaders took as much care when choosing their mowing equipment as they did when buying a new car, then we might not even need to write this article.

Good mower versus bad mower

What's the difference? A great mower will have low maintenance requirements for schools, longevity on the job, beautiful cuts, adaptability and will be, above all, best suited to your particular landscaping needs. Do you have entirely flat terrain or are you sloped? Is your school grounds something of a mixed bag? Do you need to mow roadside or exclusively on the school field? These are all questions a machinery supplier will likely ask you so that they can point you in the direction of what will best suit your needs. But what are the options?



Image courtesy of Briggs and Stratton

Ride-on mowers

Cutting width is the key factor here: ride-ons can slice through at least 110cm of grass at a time, making them a good option for mid-to-large areas over half-anacre. Just like a car, they come in manual and automatic, with some even boasting a cruise control option. Critically, you should ask about machines that have





an automated blade switch-off when you enter reverse or stop. In a school environment this is a great safety feature. Generally speaking, these beauties are heavy, weighing in over 150kg and aren't always a great choice for sloped environments. However, that depends on the machine as wider ride-ons, like zero-turn models, have a lower centre of

gravity and can handle steeper slopes. Best to enquire about this with a supplier, but they generally are not advised for slopes much greater than 10 degrees.

Zero-turns and smaller rear-engine machines have tiny turning circles and work well in intricate spaces. Ride-ons can also come equipped with side-discharge mulching attachments, making life a little easier for maintenance staff.



Image courtesy of AGCO

Small tractors

These machines have a lot of the same benefits as a ride-on but due to their larger size they have a lot more customisability.

Tractors are much faster, so they are great for large and multiple fields. They can also be used for more things; spreading fertiliser or aerating soil. They also have a plethora of great attachments, making them handy for schools that want to dig up a field for a garden or tow large items like rubbish.



They are more expensive to buy and maintain though, so you want to make sure you will take advantage of their many uses.

Push mowers

If your school has more of a vegetable garden than a field, and doesn't require much machinery to keep it nice and trim; a reel mower might do the trick.

These environmentally friendly mowers don't use any gas or electricity and rely solely on elbow grease.

Probably the cheapest option, they require a lot of hard work but certainly do the job, although they aren't advised for use in wet weather as they work best on bone dry blades of grass.

Walk behind mowers are the traditional option most commonly seen at home.

Self-propelled models make light work of small-to-mid-sized lawns, while push mowers require a little more effort but can get similarly great results.



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Image courtesy of John Deere

The key with push mowers is to find something that's ergonomic and manoeuvrable. Look for handles that lessen vibration to save on shoulder aches and pains.

Maintenance should also be fairly low, depending on usage.

How many blades? Enquire about this with your supplier of choice and ask whether the cutting deck is in one-piece or welded.

One-piece can offer more stability in motion but a welded option may give you the strength you need when caring for a high-use lawn.

Leasing or financing

Options are available to schools, so it is well worth enquiring about lease and financing options with your local suppliers. Leasing new equipment can prevent large upfront costs and mitigate maintenance fees with new machines and monthly payments. Many companies will also provide training and ongoing support, which can be handy as maintenance staff otherwise have to keep up with new technology advancements.

Industry comments:

"When it comes to school grounds care and sports field maintenance. there's a lot to consider when choosing the right machine to get the job done. Conditions and tasks can change rapidly and your machine should have the capability to change with it. A reliable machine offering professional quality cuts and finishes is a priority, but doubling as a powerful maintenance workhorse is too. After all, the jobs and conditions change, so why shouldn't the machine change along with them," said Massey Ferguson representative Simon van Kruining.

Briggs & Stratton Category
Manager for Rides, Damien Souter,
told us: "Nowadays, schools are
using many specialised pieces
of machinery to complete
those tasks more quickly, and
to a much higher standard of
both quality and safety. High
performance zero-turn mowers
can complete large area mowing
much faster than a tractor/slasher
or traditional mid-mount riding
mower. Improvements such as
high capacity cutting decks, grass
collection systems and turf friendly

Are school grounds important?

Absolutely and far too often are relegated to simply the external area for children to let off steam or provide places to eat

Studies have repeatedly demonstrated that a simulating outdoor environment enhances cognitive development, physical coordination and even social skills, by creating meeting places to cater for differing and specific groups within the school.

The old days of solely wall to wall asphalt marked with fading sports lines and the mandatory basketball ring are becoming a thing of the past, as the Schools Principles become aware of the different enhancing designs for the external space

The traditional sport play spaces are essential but that may be only stimulating for certain students, leaving some students feeling alienated in a way that Principles may not be aware of.



School grounds can be designed with a myriad of subtle and not so subtle stimulating activities, without sacrificing the traditional play spaces. Sound gardens, obstacles that simulate coordination between classrooms, quiet spaces and amphitheatres both large and small. Climbing walls and simple rope structures;

all designed to cater for the many not just the few.

Often the children themselves can take part in the creative process, being asked to write or draw what they would like in the playgrounds. The answers can be startling. A skilled designer will use that information in consultation with the school decision makers to create a plan

for the future, for the school to grow into. For the children to grow and develop into.

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Nowadays, schools are using many specialised pieces of machinery to complete those tasks more quickly, and to a much higher standard of both quality and safety.

Image courtesy of Briggs and Stratton

tyres also mean a greater quality of cut. Some of the considerations when looking for grass cutting equipment, how large is the job, and how quickly does it need to be done? What kind of cut quality is expected? Is grass collection or mulching ability a factor? How long will the turf get between cuts?

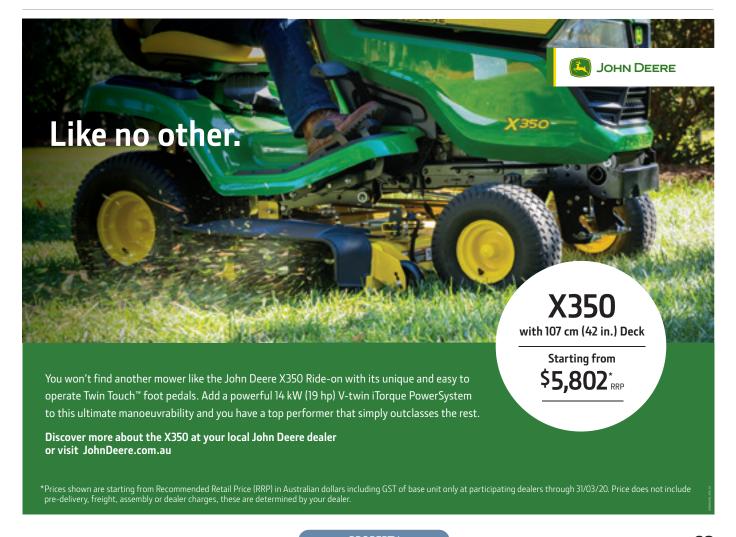
"I remember, growing up, my primary school had one tractor that was used for many jobs. From moving mulch and sand to mowing sports fields, large areas and all kinds of heavy lifting."

For schools keen on smaller machines, he said: "Compact

tractors have power anywhere from around 20-50HP and many are available with optional implement attachments. These can represent a versatile and value option for lighter jobs. Many smaller tractors with turffriendly tyres and hydrostatic transmissions can also be fitted with a mid-mount mower deck for tackling smaller mowing jobs. A 19" or 21" self-propelled commercial mower will give the versatility to

fit in smaller spaces and work around garden beds, and should the need arise to mow larger areas, the self-propelled functionality makes it less of a chore.

"To keep your gear working at its peak, preventative maintenance is key. Consumables like oil, filters, and grease will always be a lot cheaper than a new engine or hydraulic pump, so look after your gear and it is a lot less likely to let you down."





By Mandy Clarke, Industry Reporter

As school populations soar and states scramble to stretch classroom space, modular school buildings offer unique solutions that are catching on quick!

They create stunning educational spaces that are a world away from the old temp classrooms you may remember not so fondly. These modular classrooms are extremely adaptable and customisable, giving schools the option to add more space, remove interior walls and any number of things. They are also more sustainable, with a wide array of sustainable materials at your disposal. Constructed offsite, they reduce disturbance to daily school operations, reduce construction waste and are not so limited by inclement weather. The finished structures are simply transported to your school location on the back of a truck and installed.

Right now is an exciting time for design and construction



The interior of Dandenong North Primary, Image: ATCO Structures and Logistics

of modular buildings, with The Australian Research Council Training Centre for Advanced Manufacturing of Prefabricated Housing (CAMPH), led by researchers at the University of Melbourne, looking at further ways to improve construction technologies. The researchers report promising signs that modular prefab designs are the way of the future, exploring how to make them even more sustainable: "To date, much of

the construction has managed to achieve 92 percent local content. Construction is also integrating passive design principles – designing the building to be sympathetic to the local climate and reducing the reliance on supplementary heating and cooling to achieve comfortable indoor temperatures. This approach delivers more sustainable solutions that lower ongoing operational costs."

Today's learners benefit from astounding innovation in permanent modular classrooms that are bright, fun, exceptionally adaptable, more sustainable and well insulated. While modular buildings fit the bill and can be cheaper to construct, it all depends on the location of your school and complexity of design so consult with your supplier of choice and find out what is possible within your budget.



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Industry take:

We spoke with education business development manager Clint Cunial, from ATCO Structures and Logistics, about how to create a module school building.

The buildings are fabricated with steel frames and anything from plasterboard, fibre cement or Colorbond material used in different shapes and sizes. Larger learning spaces with operable walls can provide the flexibility to open up spaces or close them off depending on the learning activity. Open spaces for students can engage them in a variety of learning activities, and accommodate alternative furniture items and layouts. Schools are wanting designs that create outdoor learning areas for students to learn closer to their natural environment.

In the past, classrooms were designed as a simple box, and now they are looking for spaces that accommodate new teaching styles. They are thinking more about how the

Clint also offered some tips for schools looking into modular building...

Don'ts:

- Expect the buildings to necessarily be cheaper than traditional build methods in metro locations.
- Limit your imagination on what a modular building can do.

Dos:

- ☑ Because modular buildings sit up off the ground, it's good to invest in underbattening underneath.
- Acoustic ceiling linings to prevent noise transfer.
- $\overline{\mathbf{A}}$ Carpet as opposed to vinyl floor coverings to prevent noise transfer.
- Cross flow ventilation particularly in high temperature locations.
- Impact resistant walls.

are installed on stumps, level ground is not necessary.

You can move it to another site once built or, if initial outlay is a problem, classrooms can be hired for a period of months or years, while capital is raised for outright purchase. Schools can also request anything they need: amenities, toilets, food preparation areas and science labs. The inclusions are endless and can be the same as traditionally built buildings.

While it's a permanent design, schools can add on modules, pull off modules, remove internal walls to create a new space of any dimensions. Modular solutions have attracted schools with fluctuating student populations. The offsite manufacturing also means reduced disruption and less external personnel on school grounds; not to mention the cost factor, especially in remote locations. Traditional building contractors onsite in remote locations can be expensive.

space can influence learning outcomes. Modular buildings offer flexibility and versatility of design. Modular buildings are built to order, using the same quality of materials such as traditionally built buildings including unique finishes that feature timber, glass, aluminium and colourful feature walls and carpet designs. Sustainable building applications for modular classrooms include solar panels,

as well as careful planning of placement and orientation, to optimise energy efficiency.

He described some of the advantages to modular:

The design is flexible as designers can put together different modules of any scale and dimensions to custom build whatever space suits the school's pedagogical aims. The buildings can be positioned





External and internal views of Thomastown East Primary, Image: ATCO Structures and Logistics





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Bend creates smart spaces for social places.



