Learning in the 21st Century: 21st Century Skills

We live in an increasingly diverse, globalised, complex and media-saturated society. Some believe that this technological revolution will have a greater impact on society than the transition from an oral to a print culture.

Today’s kindergarten children will be retiring in about sixty years. We don’t know what the world will look in five years, much less sixty years, yet we are charged with preparing our students for life in that world. As educators, therefore, we need to be adept, keep up with technology and teach 21st century skills.

Schools are also bound by curriculum requirements. The Australian Curriculum increases the emphasis on ICT in education. ‘Rapid and continuing advances in information and communication technologies (ICT) are changing the ways people share, use, develop and process information and technology. In this digital age, young people need to be highly skilled in the use of ICT.’ (The Melbourne Declaration on Educational Goals for Young Australians, 2008 – from which the Australian Curriculum was developed).

ICT is an imperative directed through the General Capabilities in the Australian Curriculum, which are integrated into all subject areas. A separate subject area, Technologies, which incorporates Digital Technologies and Design Technologies, is also a key part of our curriculum.

In all learning areas at school, and in their lives beyond school, students need to be able to:

- access, create, manage and communicate information and ideas.
- solve problems and think critically.
- make decisions.
- work collaboratively.
- make the most of the technologies available to them.
- adapt to new ways of doing things as technologies evolve.
- limit the risks to themselves and others in a digital environment.

The use of technology assists students to learn these skills and is an important part of education in today’s world.

The Benefits of Anywhere, Anytime Learning

At St James we have adopted a 1 to 1, Bring Your Own Device (BYOD) learning program.

1:1 learning programs are not new. They have been evolving for two decades and are an important element in catering for more individualised learning. Research has shown that access to 1:1 devices can redefine learning and deliver strong benefits to students such as:

- increasing student engagement.
- shifting the focus from teaching to learning - increasing independence and self-initiated learning.
- enabling students to become empowered learners and active proponents of their own understanding.
- helping students to learn more deeply - to engage in more intellectual, conceptual, analytical and creative thinking.
- extending learning beyond the classroom and having a flow on to more flexible forms of learning.
- seeing students take greater pride and ownership over the knowledge they create.
- leading to greater communication and collaboration with immediate and global communities.
- developing creative expression.
- enhancing student responsibility and maturity.
Why Anywhere, Anytime Learning?

Anywhere, Anytime Learning, supported through the use of BYOD, is a method of providing students with 1:1 access to technology.

Many factors have led to the development of BYOD programs and our Anywhere Anytime Learning:
- Schools want to be sure students possess 21st century skills such as those discussed above.
- Parents are realising that a digital device is necessary for learning.
- Many students already have their own device.
- Students want to use their own devices. They feel comfortable using their own device.
- Learning is more personalised and student centred.
- Hardware is diverse and available at price points that are more affordable.
- Internet connection is widespread, generally improving in reliability and speed.
- The advent of ‘cloud’ computing has meant easy access to data and technological tools.
- Schools need to be budget conscious. In a world of such rapidly changing technology it is not economically feasible for schools to stay up to date with all aspects of infrastructure, hardware and software.

BYOD does not mean that schools are just passing on the cost of technology to families. There are different models of BYOD. All of them are about sharing the cost. Along with devices, a 1:1 program requires extensive development of network infrastructure, as well as continued maintenance and support services. While the Australian and State Governments may have provided some funding towards reaching the goal of 1:1 devices through the DER (Digital Education Revolution), this funding is no longer available.
BYOD is a great opportunity for students at St James Lutheran College. We first trialled a BYOD program with Year 10 and 11 students in 2013. In successive years, BYOD was expanded and now is offered to students in Years 7 to 12. The BYOD program is reviewed each year, with changes and improvements made based on what we learn.

What type of device can students bring?

Students are permitted to bring either a laptop or a tablet.

For the safety of students, these devices need to be Wi-Fi only. Devices with 3G or 4G capabilities are not included in the program. Students are also not permitted to bring accessories such as dongles, mobile/pocket internet devices, or use personal hotspot connections on phones that allow them to access the internet independent of the school’s Wi-Fi network.

We realise that students sometimes use different devices for different purposes, so students registered for BYOD are able to bring more than one device to school, or bring different devices on different days. This is not to say, however, that we want students to bring more than one device to school every day. For example, if a student normally brings a laptop to school and knows that they will be working on a task where an iPad is more suitable, then that student is able to bring an iPad from home to use instead (or as well). Students should try not to have more than one device connected to the network at any one time.
Device Minimum Specifications

The information below is for new families in 2020, or families buying new devices. Current students bringing devices through from previous years can continue to do so. It is recommended that students considering ICT subjects in Years 11 & 12 perhaps consider devices with a bit more than the minimum specifications. It is highly recommended by the college that devices meet these minimum specifications to ensure their performance and longevity is met.

Laptops – Windows or Mac

✓ Operating system - Windows 10
  - MAC OSX 10.12 or higher (10.13 / 10.4 recommended)
✓ RAM – minimum 4GB (8GB recommended)
✓ CPU – minimum intel i3/i5 or equivalent
✓ Hard drive – minimum 120GB (Solid State Drive recommended)
✓ Wi-fi only – dual band 2.4ghz/5gh (5gh is required to connect to student wifi)
✓ Screen Size – at least 10"
✓ Anti-virus software – up to date at all times
✓ Battery life – minimum 4hrs
✓ Protective carry case

Tablets – Windows or iPad

✓ Surface 3 or higher; iPad (A9 or A10)
✓ Operating system – Windows 10; iOS 11 or higher
✓ Capacity – minimum 32GB
✓ Wi-fi only (no sim card)
✓ Screen Size – at least 9.7"
✓ Anti-virus software – up to date at all times (Windows platform only)
✓ Battery life – minimum 4hrs
✓ Protective carry case

Optional Extras

Your child may also appreciate:
✓ A stylus or pen, depending on the device chosen.
✓ Connected keyboard

You as parents will appreciate:
✓ Extended warranty – ask when purchasing.
✓ Insurance – ask retailer or your insurance company.

If you have another device, please contact us to ascertain whether it will be suitable.
What are the guidelines for students bringing and using their own device?

Guidelines for the use of personal devices at St James Lutheran College are covered in the Computer Acceptable Usage Agreement (AUA), including the BYOD, Mobile Phone and Digital Citizenship components. Current versions are available on our website. Both students and parents will be required to sign these documents in the college diary at the beginning of the school year, before students are registered to bring their own device to school. Permission to BYOD will be granted on a year-by-year basis. It is a privilege, not a right.

All devices must comply with the school’s AUA. Devices are not permitted to have any VPN installed, malicious or pirated software, content deemed inappropriate, or illegal material installed or accessible at any time. Deliberate attempts to bypass the school’s filtering system, including using a VPN or access parts of the network which BYOD devices do not have access to will be treated seriously and lead to disciplinary action and a possible forfeit of BYOD permission. Internet usage at St James is regularly monitored and scanned for any violations of the AUA. IT staff, teachers and other College staff reserve the right to regularly and randomly check students’ BYOD devices to ensure that the devices and the students’ use of them comply with the AUA Agreement.

The primary use of personal devices at school is educational. The AUA clearly outlines the policy with regards to such things as gaming and social networking. Use of personal laptops or tablet devices during the school day will be at the discretion of teachers and staff. Students must only use these devices as directed by their teacher.

Students must bring their device to school fully charged. They cannot assume that they will be able to charge it at school. Students will not be permitted to use personal devices outside scheduled classroom times and classroom spaces.

How will students access the College network?
Access to the St James Lutheran College wireless network will be provided via log-on with a school username and password. Access to the wireless network entails personal responsibility and compliance with school rules and policies. Network access from student BYOD devices is limited to wireless connectivity only.

What about technical support, repairs and maintenance?
St James will only provide technical support for problems connecting to the College network and some very basic questions that students may have regarding their device. The College is not responsible for the repair, maintenance or upkeep of personal devices (eg keeping them charged, installing updates or upgrades, fixing software or hardware issues). Warranty/service agreements are the responsibility of parents.

Storage and Backing Up of Work
Students will not have direct access to the school network or network storage space, so they are responsible for the organisation and storage of their own work data. The school provides students with cloud storage space through their Google Apps for Education accounts. It is not only good practice, but a requirement of the AUA Agreement, that students back up data regularly. Losing work is not an acceptable excuse in this digital age.

Software
It is important that all BYOD devices (laptop or tablet) have the following work capabilities –

✓ word processing
✓ powerpoint / presentation
✓ spreadsheet
✓ web browsing (Chrome recommended for use with Google Apps)
✓ the ability to view PDF files/documents
✓ a good note taking app
✓ digital book reader
✓ basic photo / video software

All students can access basic office apps through the College. As part of their stjameslc.net Google Apps for Education, accounts have online access to a suite of apps including documents, slides, spreadsheets and more. Students can also access for free the Microsoft 365 suite. Google and Microsoft programs can be accessed on both Windows and Mac laptops and tablets. MAC operating systems also come with a suite of office apps - Pages, Numbers and Keynote.

St James is also able to provide certain Adobe software to students with BYOD laptops. Occasionally, there may be subject specific software applications (usually free) for some students (eg Graphmatica for Maths). Parents will be informed if this is the case.

Students must have an iTunes account connected to be able to download apps on an iPad, or the equivalent for Microsoft tablets and Android devices.

It is vital that laptops also have up to date antivirus software.

**Headphones**

Students are to supply their own headphones as part of their BYOD. However, use of headphones is solely for educational use.

**What about printing?**

Cloud printing is available to students, but they should not expect to do all their printing at school. Students will have a predetermined printing allowance and will be required to purchase more credit from the ICT Support Office if they reach their allowance. Teachers and students are encouraged to explore the option of going paperless and submitting tasks electronically wherever possible.

**What about insurance and school liability?**

Students bring their own personal devices to use at St James Lutheran College at their own risk. St James Lutheran College will not be responsible for:

✓ * personal devices that broken/damaged whilst at school or during school related activities.
✓ * personal devices that are lost or stolen at school or during school-related activities.

It is the responsibility of the family to ensure that devices are adequately covered by insurance. Ask about insurance and warranty options when purchasing your device. All devices should also be protected by a sturdy carry case. It is the student’s duty to be responsible for protecting their device whilst at school. All students are issued with a locker. Devices should be kept securely locked away when students do not have it on their person.

**Managing Devices at Home / Internet Safety**

Whilst at school, students are required to adhere to our AUA agreement. Their use of the internet is both filtered and monitored. Technology is integrated into all subject areas, and as such all teachers are responsible for teaching lessons about digital citizenship, cybersafety, cyberbullying, protecting privacy, keeping information secure, using passwords,
looking after equipment and much more. These skills are outlined in the Australian Curriculum – ICT General Capabilities and Digital Technologies curriculum.

*Management of devices at home and internet safety at home are the responsibility of the family.* St James regularly sends out information about these topics via newsletters, emails, pamphlets and brochures, and at times holds parent information nights. It is important that you take the time to be informed.

Some simple things that you can do as parents to help your children stay safe on the internet are:

- ✓ talk to them often about internet safety.
- ✓ talk to your children about what they are using the internet for.
- ✓ be aware and informed about both the benefits and risks of the internet.
- ✓ supervise your children, no matter how old they are – have rules in place about time limits and areas in the house where students can use their devices; have rules in place about what games, apps and internet sites students can access/sign up for; consider signing a ‘family internet agreement’.
- ✓ ensure that devices have up to date anti-virus software and check security settings.
- ✓ install content filtering software.
- ✓ use restrictions, check security and privacy settings.

For more information regarding internet safety the Office of the Children’s eSafety Commissioner and the Australian Federal Police have easy to navigate websites:


Where can I get more information?

For more information or questions regarding BYOD, please email [resourcecentre@stjameslc.qld.edu.au](mailto:resourcecentre@stjameslc.qld.edu.au).