Otumoetai Intermediate School

E-Learning and BYOD

Otumoetai Intermediate School staff are excited about the opportunities that a **Bring Your Own Device** (**BYOD)** approach offers our students. We recognise that the world is changing and that opportunities for different learning methods have been created through the rapid development in ICT worldwide.

Our school mission statement, which is the same as the vision of the New Zealand Curriculum, is to foster young people who will be “confident, connected, actively involved and lifelong learners”.

“We are aiming high for young New Zealanders to be the most digitally literate in the world so they can have every opportunity to be more innovative and better compete in a modern economy. Adopting the best approach to 21st century learning will require change across the education sector. It is critical that we recognise how much of this change is being driven by students themselves, and how eager they are to learn online through new applications, tools and content.”

Minister of Education, Nikki Kaye

In the 21st century, E-Learning is becoming fundamental to enabling this vision.

Curriculum subjects are increasingly relying on a wide variety of online learning tools. However no matter how many computers we place in classrooms, there are still restrictions on staff and students from making full use of these learning tools.

This is why we introduced BYOD at our school.

We wish to create a more accessible, diverse, and dynamic learning environment for Otumoetai Intermediate School students, one that reflects the world we live in.

There are many advantages for students bringing their own ICT devices to support their educational needs. A student-owned internet capable device can be an important part of a student’s educational toolkit, providing them with instant access to unlimited resources and enabling them to support, extend, communicate and share their learning in a way that will prepare them for the future.

Some advantages of **BYOD** include:

- Anytime, anywhere access to class resources, support and extension activities through Google Apps for Education.
- The ability to develop digital folders and work for their classes (that can't be lost, are always accessible and never need replacing) through cloud computing.
- Being able to develop a portfolio of student learning using cloud applications.
- An increased ability to communicate and interact with teachers, parents and peers electronically to support their learning.
- Anytime, anywhere access to unlimited educational resources and information on the internet.
- The ability to collaborate with other students in real-time.
- Allowing students to become active partners in their learning.
- Enabling students to enter and explore new learning environments, overcoming barriers of distance and time, facilitate shared learning by enabling students to join or create communities of learners that extend well beyond the classroom.
- The creation of supportive differentiated learning environments by offering resources that take account of individual, cultural, or developmental differences.
- Enhancing opportunities to learn by offering students virtual experiences and tools that save them time and allowing them to take their learning further.

Cell Phones

Many schools still ban students from having cell phones and other mobile devices at school. Our parents, staff and students, however, decided in 2010 to adopt a policy where the school embraced new technology and taught our emerging adolescents how to use these mobile devices effectively for learning and with moral and ethical behaviour. The school has strong protocols in place for student use of cell phones and other devices. We have found the move away from banning mobile devices has resulted in enhanced student learning in the classroom and it has enabled parents and students to be able to communicate more effectively with each other.

We have also found that this has heightened our ability to develop responsible young people able to adjust to the challenges new technologies bring and to provide a safe and secure environment for all.

Next Generation of Learning

Early evidence suggests that young people who learn with portable devices are more engaged with their learning as they use technology which is not necessarily there in the traditional classroom setting. In today's technologically connected world, it is how the next generation expects to engage in their learning and to communicate in the workplace.

Our focus is on how we integrate new technologies appropriately and so that every student has equal and fair access to it.

2020

In 2020 we will be providing a range of opportunities for students to engage in their learning with mobile devices.

Digital Classes

The first opportunity is placement in digital classes where students are able to purchase their own Chromebook and bring these to school. These students will be placed in a digital class where every student has bought a Chromebook for their own exclusive use.

The Chromebooks will be used in a blended learning situation where 50% of a student's time may be spent using the device for creative production with access to the internet. The other 50% is used blending in paper based tasks such as forming mathematics algorithms, oral activities and other creative tasks where a computer is not necessarily the best tool for learning.

Placement in a digital class requires the payment of a technical support fee which covers the cost of managing the device on our school network and employing a teacher to work specifically with the digital class students in learning how to use advanced applications, to assist with device management and technical issues that occur from time to time.

Bring Your Own Device (BYOD)

BYOD is an option, not a requirement, for enrolment at Otumoetai Intermediate School but many students and their families may choose to be part of this.

The second opportunity is for students who are not in digital classes. They will be able to choose their own mobile device to bring to school. These students will not be grouped together specifically, but will be able to use the devices at school to enhance their learning with instant access to the internet through our wireless network. All teachers at our school will integrate the use of mobile learning into their class programmes and there will be times when the whole school is focused on inquiry learning around a school wide theme or big idea.

In all cases, students will be required to register their mobile device on our network and they will be closely monitored to ensure they are using their device safely and appropriately for their learning.

Inappropriate sites will be blocked and student's internet access filtered.

There will not be a fee charged for devices brought into the school by students who are not in digital classes, however, they will not receive the level of technical support offered to students in the digital classes. The school will take all care but no responsibility for the care and security of devices brought into

the school. All classes will be locked when students are out of the room. Insurance of the device will be the responsibility of the student and their family.

Many local retailers are providing educational pricing and there will be a number of specials offered leading up to the Christmas holidays. Many retailers also offer finance options where families are able to pay off their device over a period of time. Where we feel a supplier is offering a good deal for our parents we will pass on their details through our school website and newsletter.

Equity of Access to New Technology

The school is grateful to the Tauranga Energy Consumers Trust (TECT) for their support of our school. This has enabled the school to purchase iPad minis, Chromebooks, large screen TVs and computers for student use in the school thus ensuring equitable access to technology by all.

These devices are available for students who do not have ready access to the internet through their own device and no student will be disadvantaged if they don't have their own device.

What Will My Child Need if Bringing Their Own Device?

Not all students are in identical situations for BYOD.

Otumoetai Intermediate School recommends **Chromebooks and iPads** to students who wish to bring their own device to school but this is not mandatory and students are able to bring any type of device that can assist them with their learning and meet our technical requirements.

Technical Requirements

Wireless Adapter
All students will need to connect to our network wirelessly. Wireless technology inside laptops, netbooks, tablets and smartphones has progressed considerably and modern devices are now much more efficient. A minimum of 802.11n or 802.11ac wireless specification is required.

All Devices need to be named in a way that easily identifies the owner of the device across the network.

Battery Life
It will not be possible for the school to provide charging facilities for hundreds of students due to Health and Safety concerns - a battery that lasts for seven hours of sustained use is highly useful.

Which Device?

Since 2017 we have discontinued PC laptop classes and moved forward with Chromebook-based digital classrooms.

For those looking to purchase a new device, we would recommend either a Chromebook or an iPad mini for their portability, long battery life and reliability.

Go for an iPad if you want to cover multimedia creation, personal entertainment, productivity and ease of accessibility to our school network.

Go for a ruggedized Chromebook if your priority is exceptional battery life, highly focussed productivity, considering joining a digital classroom and continuity with Otumoetai College cloud computing.

If you have a “recently purchased” device, it should be able to connect to our wireless as BYOD. Devices older than three years may have difficulty.

Laptops and other tablets:

Android devices have historically been difficult for customers at times. Windows and Apple devices are generally easier to work with, however, some cheaply made PC laptops have poor wireless cards, so have unreliable wireless.

Our recommendation: Choose a well-made Chromebook instead of a $500.00 to $600.00 cheap windows laptop (you get what you pay for).

Although any of these operating systems will work on our school network, students with Apple iPads will have a much more enjoyable experience when it comes to printing their work on our photocopiers.

Windows PCs, in many ways have fewer limitations than Chromebooks, but they also require a lot more maintenance and support and are nowhere near as reliable.

We now require Chromebooks for our digital classrooms and recommend them for general BYOD for the following reasons:

- Automatic updates
- Speed
- Reliability
- Cloud storage/back up
- Ease and speed of restoring
- All day battery life
- Ties into our school Google domain
- Cost
- No viruses

- They seem to just work
- Affordable ruggedized models
- Less distractions
- Students are more productive when using them
- Students prefer them over iPad minis

What Could a Student's BYOD Day Look Like?

Charging

A student will need to start the normal BYOD day the night before - each student will need to take responsibility for having put their device to charge overnight so that it has a full charge for the next day. If a student runs out of battery during the day, it is likely there will be no opportunity to charge during a lesson. In such cases, the student will need to be prepared to use pen and paper until the device is charged again.

Security

Each student will be responsible for keeping his/her BYOD device safe from damage and safe from theft. The school will not be able to repair the device so it will be much easier for the student to look after it than damage it and have it repaired. Insurance will be the family's responsibility.

In the cases where students are not able to keep their device with them (such as Physical Education classes), security arrangements will be available to keep all devices safe from theft / weather / etc.

Backing Up

Backing up data is a key skill for anyone who uses computing devices. We will teach students the different options available for backing up work to protect against instances such as damaged or stolen devices. Each student will be provided with a Google account - this will allow them to keep all their work backed up 'in the cloud' which is probably the safest form of data backup for schools.

The Flipped Classroom

One of the styles of learning that **BYOD** makes possible is the 'flipped classroom'. Instead of the student learning something in class and following up for homework, the flipped classroom operates in the reverse - the teacher will ask students to prepare for the next day by using their BYOD device to maybe do some reading or possibly complete a 'prior learning' exercise. The flipped classroom will allow the teacher to use the lesson to *build upon* student learning, rather than *begin* student learning.

Conclusion

The development of mobile devices provides schools and other educational providers with an opportunity to shift learning to a student centred approach where students are able to learn anytime, anywhere and at their own pace.

For the first time in history every student will have access to global resources through the internet and be able to communicate and collaborate in real time with others across the world.

We see this as an exciting time and an opportunity to prepare our students for their future careers. Even now workplaces are being transformed as businesses and government departments embrace the new technologies to improve what they do. The adoption of iPads by the police force is an example of this.

As tablets and other devices become more ubiquitous and lower in price, we anticipate that they will become an integral part of each student's stationery pack and a basic tool for learning.

Our school is recognised as a progressive and leading school in New Zealand and we invite you as parents to join us on this next stage in our 21st century pathway.

Henk Popping
PRINCIPAL