



Personal Learning Device (PLD) Initiative



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The National Digital Literacy Programme and the PLD Initiative



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The National Digital Literacy Programme (NDLP)

1. The NDLP was launched in March 2020 to **make digital learning inclusive** by **equipping students with the digital literacies** to be future-ready.
2. Under the NDLP, every secondary school student will **own a school-prescribed personal learning device (PLD)**. Students may use funds from their Edusave Account to pay for the PLD.



Intended Outcomes of a Personalised Learning Environment

The use of the Personal Learning Device for teaching and learning aims to:



**Support the
Development of Digital
Literacies**



**Support self-directed and
collaborative learning**



**Enhance Teaching and
Learning**



Students' Experiences



Learning with a PLD: Kranji Secondary School



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How will your child/ward use the Personal Learning Devices?

Your child will be using the device for...

- in class and out-of-class learning. This is to promote active learning and greater personalisation. In class, the devices will be used to support learning of the curriculum subjects independently or collaboratively. Beyond the classroom, students will be able to use the device for home-based learning. Students can review past lessons, access digital resources on the Singapore Student Learning Space (SLS) platform and other digital platforms to enhance their learning, or explore topics of their own personal interests using the device. They can also make use of digital tools such as calendaring and note-taking applications to enhance their personal productivity.
- alternative assessments/ authentic learning tasks that require research, digital creation, and collaborative learning
- ICT training courses
- Interdisciplinary project based learning



Supporting Students in the Safe and Effective Use of the Devices



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Supporting Students in the Responsible Use of the Devices


The school has measures in place to enable a safer digital environment for learning with the use of PLDs, e.g.

- A. Classroom management and routines
- B. Educating students on Cyber Wellness
- C. Partnering parents/guardians to ensure that students are well-supported in their use of technology for learning
- D. Device Management Application (DMA)



Classroom Management and Routines

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Classroom Routines for your Personalised Learning Device (PLD) When in class

Before Lesson

- Place your PLD under your desk at all times.

During Lesson

- Place your PLD on the desk and turn it on when instructed by your teacher.
- When your teacher is talking, give your full attention by keeping your PLD cover tilted down.

End of Lesson






- Update your schedule in the last 3 minutes of lesson when applicable.

When moving in and out of class


- Turn off your PLD and lock it inside your locker during Recess/Lunch time, PE lessons, CCA practice, school external events

At all times

- No charging of PLD in school.
- For technical help, look for Desktop Engineer (DE) at Computer Lab 1.

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Classroom Routines for Digital Literacy Administrative Procedures

Managing Schedule


- To add assignments or events:
 - Go to your calendar or to-do list (Google Calendar)
 - Include details such as description of task, deadline etc.
- Be responsible for your own learning: check your schedule daily
- When applicable, update your schedule on a daily basis in the last 3 minutes of lesson.

Managing Digital Files

- Give your files, folders or bookmarks logical and specific names
e.g. Class_Index no._Name of student_subject_unit no._name of task
- Organise offline digital files into folders
- Organise webpages into bookmarks
- Back up your files weekly in a separate location such as C:/ drive, portable thumbdrive, or portable hard disk

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Classroom Routines for Digital Literacy Instructional Tasks

Managing learning with digital tools



Use note-taking app (OneNote) to document ideas, thoughts and reflection:

- Annotate text or diagrams
- Record key ideas and questions
- Create digital artefacts
- Share learning with others
- Set aside a few minutes each lesson to make use of notes to consolidate learning by reflection.

Managing safe and ethical curation of information

When you search and use online information:

- Turn on safe search function
- Check for reliability of information
- Report inappropriate or suspicious online content (e.g. websites, email and email attachments etc) to a trusted adult or authority
- Cite your sources, reject plagiarism, present accurate information.

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Classroom Routines for Digital Literacy Interactive Routines

Managing and controlling one's digital footprint

- Do not share personal data.
- Check your privacy settings and manage your sharing rights so that the right people have access to your content.
- Use a strong, memorable password.
- Observe internet etiquette in your interactions.




Cyber Wellness Education

Educating students on Cyber Wellness

Students will learn to be respectful, safe and responsible users of technology, and be a positive peer influence, advocating for the good of the community online.

They will:

- Embrace the affordances of technology while maintaining a balanced lifestyle between offline and online activities
- Be a safe and responsible user of technology and maintain a positive online presence
- Be responsible for personal well-being in the cyberspace



Cyber Wellness Education

To equip students with these values and skills, the school implemented the following strategies, such as:

- Cyber Wellness education through discussions at CCE lessons, assembly talks, and Cyber Wellness workshops
- Peer Support Leaders acting as Cyber Wellness ambassadors to look out for students' well-being in the online space
- Caring and enabling school culture, where teachers and allied staff support students in need



Safe and Effective Use of Devices

Parents'/Guardians' Role

We would like to partner parents/guardians to ensure that students are well supported in their use of technology for learning.

As parents, you can also play a part:

- Model good digital habits for your child.
- Know your child well, and have conversations with your child about safe and responsible use of technology.
- Set ground rules for use of internet and mobile devices.
- Navigate the internet together to understand their usage.



Safe and Effective Use of Devices

Parents' Voices: In Conversation on Students' Use of PLDs for Learning



Role of the DMA in Providing a Safer Digital Environment for Learning



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Digital Management Application Installation

- Your child's/ward's PLD will be installed with a Device Management Application (DMA) to provide a safer digital environment for learning.
- Installation of the DMA will be performed after the collection of the device. Students will be guided on the installation.
- This applies to both devices purchased through the school and pre-existing student-owned devices.
- The DMA will be **funded by MOE** and will be **uninstalled** from the device **when your child/ward graduates/leaves the school.**



In-School DMA Settings

Schools will determine DMA settings for **in-school use**. As a default, these settings will continue to be in place after school as well:

- MOE and the school will set the level of web content filtering, including filtering out objectionable content or content that may not be conducive to teaching and learning (e.g. social media, pornography, gambling, or websites containing extremist content)
- The school will determine the apps and programs to be installed to support teaching and learning



Providing Parents/Guardians with Greater Choice for After-School PLD Use

The school will provide parents/guardians with more information on exercising the options.

Default	Option A	Option B
<p>In-school DMA settings will continue after school hours (6.30 am to 10.00pm)</p>	<p>Parents/Guardians can modify the DMA settings after school hours (6.30 am to 6.30 pm)</p>	<p>Parents/Guardians can choose to disable DMA after school hours (6.30 am to 6.30 pm)</p>
<p>For parents/guardians who want their child’s/ward’s use of the devices to be restricted only to teaching and learning, and prefer to leave it to the school to decide on DMA settings after school hours.</p>	<p>For parents/guardians who want more leeway over the use of the device, and prefer to take charge of the level of restrictions for their child’s/ward’s use of the device after school hours.</p>	<p>For parents/guardians who do not want their child’s/ward’s use of the device to be regulated by DMA after school.</p>

- Having default school settings continue after school hours is the best option for parents/guardians who prefer not to, or do not feel ready to manage their child’s/ward’s device use on their own.



Providing Parents/Guardians with Greater Choice for After-School PLD Use

	Default (6.30 am to 10.00pm)	Option A (6.30 am to 6.30 pm)	Option B (6.30 am to 6.30 pm)
Protecting students from objectionable content	MOE/school sets level of web content filtering	Parents/Guardians can apply additional content filtering	No content filtering
Reduce distractions from learning through control of applications	Parents/Guardians and students unable to install additional applications	Parents/Guardians and/or students can install applications after school hours, but these applications are disabled during school hours	
Limit screen time	School sets hours during which students are able to use the device online	Parents/Guardians can modify the amount of screen time*	No control over screen time

*Screen time limits set by the school will override parents'/guardians' settings during school hours.



Providing Parents/Guardians with Greater Choice for After-School PLD Use

	Default (6.30 am to 10.00pm)	Option A (6.30 am to 6.30 pm)	Option B (6.30 am to 6.30 pm)
Parent/guardian account	Provided to allow monitoring of PLD activities after school hours		Not provided
Monitor students' cyber activities	Parents/Guardians can track their child's/ward's browser history after school hours		Parents/Guardians will <u>not</u> be able to monitor or control their child's/ward's use of the device through the DMA after school hours No data* will be collected during use of PLD after school hours

*Parents/Guardians and students on Option B will need to use non-Chrome browsers to avoid web browsing history tracking and web content filtering.



Deciding on the Choice of After-School DMA Option

Parents/guardians may wish to consider the following questions before deciding on the choice of after-school DMA option which is best for your child's/ward's learning.

1. Child's/ward's current device usage habits

- How much time does my child/ward spend on their device?
- How well is my child/ward able to regulate their device usage on their own?
- Does my child/ward get easily distracted while doing online learning?

2. Parents'/Guardians' involvement

- How confident and familiar am I with managing my child's/ward's cyber wellness?
- Are there existing routines and open conversations on the use of the Internet at home?
- Am I aware of how to prevent different types of cyber threats that my child/ward might face?



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Have a conversation with your child/ward to talk about which setting is best for your child's/ward's learning.

Data collected by DMA

The DMA does **NOT** collect any of the following data:

- Login IDs and passwords entered into websites or into any applications
- Actions performed (e.g. posts, online comments, items added to a shopping cart, etc.) when visiting websites and using apps
- Documents and photos stored in the PLDs
- PLD location
- Webcam videos and microphone recordings



Additional Resources for Parents

To support you in keeping your child/ward safe online, you may refer to these additional resources:

- Parent Handbooks (I) and (II) on Learning with a Personal Learning Device (shared by the school)
- Parent Kit on Cyber Wellness for Your Child (<https://go.gov.sg/moe-cyber-wellness>)
- Schoolbag article 'Keeping our teens safe online' (<https://www.schoolbag.edu.sg/story/keeping-our-teens-safe-online>)
- MOE Cyber Wellness Programme (<https://www.moe.gov.sg/programmes/cyber-wellness/>)
- Media Literacy Council (<https://go.gov.sg/better-internet-sg>)
- National Library's Learning & Information Literacy Resources (<https://sure.nlb.gov.sg/>)
- TOUCH Community Services (<https://help123.sg>)



Device and Funding Information



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Device Funding and Information

Kranji Secondary School's Personal Learning Device



Device Category	Acer TMB311RN-32 (Enhanced)
CPU	Processor upgrade to Pentium QuadCore N6000
RAM	8GB
Storage	128GB eMMC
Display	11.6" touch screen
Weight	1.47kg
Add-ons	Active Stylus Pen

Acer TravelMate Spin TMB311R (Enhanced)
(1.47kg, 128 GB Storage, 11.6" screen)

The price of the device bundle (inclusive of GST) is: **S\$628.00**



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Device Funding and Information

Kranji Secondary School's Personal Learning Device



Acer TravelMate Spin TMB311R (Enhanced)
(1.47kg, 128 GB Storage, 11.6" screen)

The school chose the device because of:

1. Portability
2. Durability
3. T&L Affordances:
 - touch screen
 - use of stylus pen to write (Inking function)
 - typing using keyboard
 - video recording
 - multimedia editing



Device Funding and Information

PLD Bundle

What it includes

- Acer TravelMate Spin TMB311R (Enhanced)
- Use of stylus pen to write, mouse, touch screen
- Insurance and Warranty

Enhanced Device Bundle

What it includes

- 3-year warranty and 3-year insurance
- 2 repairs or 1 replacement claim



Funding Support for Singapore Citizen (SC) Students

- **The cost of the device bundle can be paid using your child's/ward's Edusave account**, after setting aside provision for payment of second-tier miscellaneous fees.
- To ensure the affordability of devices, MOE has provided Edusave top-ups of \$200 in 2020 and \$200 in May 2021 (as part of the Household Support Package announced in Budget 2021), to all eligible SC students in primary and secondary schools.
- This is on top of the annual \$290 credited into the Edusave account for Secondary School students and \$230 for Primary School students.



Funding Support for Singapore Citizen (SC) Students

- For SC students who are on MOE Financial Assistance Scheme or whose family's monthly income meets the following criteria:

Gross Household Income (GHI) \leq \$2,750, or

Per Capita Income (PCI) \leq \$690

the school will subsidise 50% of device bundle cost or \$350, whichever is lower.

The remaining amount will be payable from the students' Edusave account. If there is insufficient balance in the students' Edusave account for the remaining amount, school will provide additional subsidy so that the cash out-of-pocket (OOP) is \$0.



Funding Support for Singapore Citizen (SC) Students

- For SC students whose family's monthly income is:
 $\$2,750 < \text{Gross Household Income (GHI)} \leq \$4,000$, or
 $\$690 < \text{Per Capita Income (PCI)} \leq \$1,000$
the school will subsidise 30% of device bundle cost or \$200,
whichever is lower.

The remaining amount will be payable from the students' Edusave account. If there is insufficient balance in the students' Edusave account for the remaining amount, school will provide additional subsidy so that the cash out-of-pocket (OOP) is not more than \$50.



Device Funding and Information

Funding Support for Singapore Citizen (SC) Students

SC students whose family's monthly Gross Household Income (GHI) > \$4,000 or monthly Per Capita Income (PCI) > \$1,000, no subsidy will be provided. Parents/Guardians can use their child's/ward's Edusave or cash to defray the device bundle cost.



Device Funding and Information

Funding Support for Non- Singapore Citizen (SC) Students

Permanent residents (PR) and international students (IS) who need support could apply for subsidies, particularly those whose Gross Household Income (GHI) is below \$4000 or Per Capita Income (PCI)[#] is below \$1000.

Support is provided to ensure affordability of devices for PR and IS.

Additional subsidies are available for students who need financial assistance. Parents/Guardians can approach the school for more information.



What's Next



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What's Next...

For Singapore Citizens

Time Frame	Activity
25 January 2022	<p>Submit Letter to Parents for Procurement which includes the following annexes:</p> <ul style="list-style-type: none">• Intent to purchase• Use of Edusave <p>To proceed with the purchase of the PLD, please fill in the online form at this link: https://go.gov.sg/pdlpadmin by 25 January 2022. If you are unable to submit the form online, please access the school website at http://www.kranjisec.moe.edu.sg (under announcements) for a hardcopy version.</p>
To be confirmed	Collection of Devices by students



What's Next...

For Permanent Residents (PR) / International Students (IS)

Time Frame	Activity
25 January 2022	<p>Submit Letter to Parents for Procurement which includes the following annexes:</p> <ul style="list-style-type: none">• Intent to purchase <p>To proceed with the purchase of the PLD, please fill in the online form at this link: https://go.gov.sg/pdlpadmin by 25 January 2022. If you are unable to submit the form online, please access the school website at http://www.kranjisec.moe.edu.sg (under announcements) for a hardcopy version.</p>
28 January 2022	Parent/Guardian to make payment via Giro/PayNow/ Cheque/etc.
To be confirmed	Collection of Devices



What's Next...

Letter to Parents for Procurement

singpass

Parents with Singpass can access the Letter to Parents for Procurement to indicate your consent via the link:

<https://go.gov.sg/pdlpadmin>

*Parents/Guardians without Singpass may access the form on the school website at <http://www.kranjisec.moe.edu.sg> (under announcements) to submit the hardcopy form to the Class Mentor



What's Next...

Collection of Devices

Your child/ward will be collecting his/her device in school. More information will be provided at a later date.

If you would like to verify the condition of the device during collection with your child/ward:

- You may arrange to collect the device **at the contractor's service / collection centre*** or appoint an adult proxy to do so.
- Your child/ward would need to bring the device to school and arrange for the school's IT department to install the DMA.

Please approach the school for further advice or clarification if you would like to make this arrangement.

* Parents/Guardians (or adult proxy) will **not** be able to collect the PLD from the school.



What's Next...

Important Contacts/ Helplines

To access/find out more about...	Contact/Helpline
Parent Engagement Slides	http://www.kranjisec.moe.edu.sg
Edusave Balance	6260 0777
Financial assistance available	Mdm Ng Beng Guan Administration Manager NG_Beng_Guan@schools.gov.sg
Code of Conduct for Personalised Digital Learning Programme (PDLP)	Mr Jeremy Chan HOD Character Guidance chan_mun_leong_jeremy@schools.gov.sg



What's Next...

Important Contacts/ Helplines

To access/find out more about...	Contact/Helpline
National Digital Literacy Programme	Ms M Losiny HOD ICT m_losiny@schools.gov.sg
Cyber Wellness Matters	Mr Tan Fong Wei HOD CCE tan_fong_wei@schools.gov.sg
Device Management Application	Ms Siti Khadijah ICT Associate siti_khadijah_mohamed_tawfik@schools.gov.sg



THANK YOU



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Annex

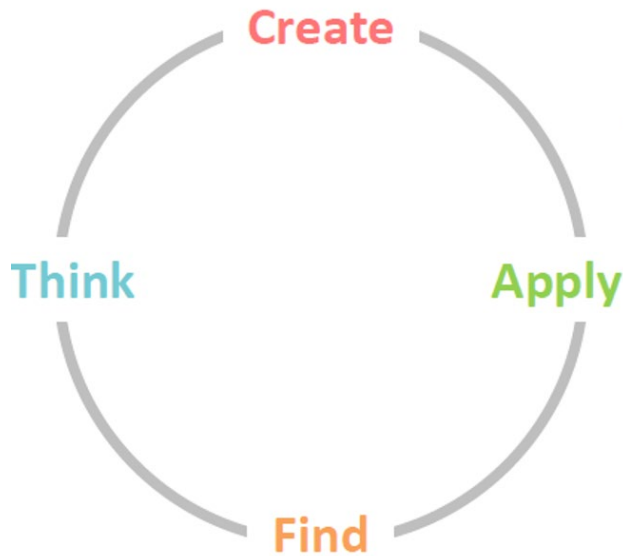


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The National Digital Literacy Programme (NDLP)

The 'Find, Think, Apply and Create' framework:



Find	Critically gather and evaluate information from, and use digital resources in a safe, secure, responsible and ethical manner
Think	Interpret and analyse data, and solve problems
Apply	Use software and devices to facilitate the use of knowledge and skills in new contexts; keep up with technological developments
Create	Produce content and artefacts, and engage and collaborate with others digitally



Insurance Coverage

The package includes a **3-year warranty**, and **3-year insurance** which includes:

Insurance Coverage	Claimable
<ul style="list-style-type: none">• Fire• Lightning• Power Surges• Accidental e.g water spillage, drop etc• Theft due to forcible entry• Robbery <p>* Accidental loss will not be covered by insurance.</p>	<p>2 repairs or 1 replacement (3-year insurance)</p>

Students should learn to take responsibility for their devices, and to learn how to care for them.



Technical Support for Student's Devices

Technical support will be provided to students through:

- Service-desk set up in school (Computer Lab 4, Level 3) during breaks and after school on a weekly basis
 - ✓ Trouble-shooting of device issues
 - ✓ Solve connectivity issues
 - ✓ Collection of devices to be sent for repairs
- Acer Service centres
 - ✓ Repair of devices (hardware issues)
 - ✓ Fortnightly courier services by Contractor is provided for damaged devices, so students would handover and collect their devices at school.



Components of DMA

The Device Management Application (DMA) software consists of the following three components:

- **Mobile Device Management Service**
- **Classroom Management Service**
- **Usage Management Service**



DMA Components and their Functions

1. Mobile Device Management Service (MDM)¹

This facilitates the **updating and management of the PLDs, protects PLDs from malicious software, and protects students from objectionable internet content, or content that may not be conducive to teaching and learning during school hours.**

- Facilitates automatic installation of apps required for teaching and learning
- Filters objectionable content or content that may not be conducive to teaching and learning (e.g. social media, pornography, gambling, or websites containing extremist content)
- Protects your child's/ward's PLD from security vulnerabilities through the automatic updating and patching of apps and device Operating System (OS)

¹ MDM is a **core service** that is required to deliver Classroom Management Service and Usage Management Service (which includes the Parental Control app).



DMA Components and their Functions

2. Classroom Management Service (CMS)

This enables teachers to **manage the students' use of the PLD** during lesson time to improve classroom management and support effective teaching and learning. Teachers will only monitor students' activities during lessons.

During lessons, teachers will be able to:

- Manage and control devices (e.g. using the “Eyes Up” function)
- Launch specific applications and/or websites for teaching and learning on students' devices
- Facilitate sharing of content
- Monitor students' usage and activities during lessons (e.g. screen sharing, monitoring students' browsing history)



DMA Components and their Functions

3. Usage Management Service (UMS)

This enables the school and/or parents/guardians to **better supervise and set helpful limits for students' use of PLDs after school.**

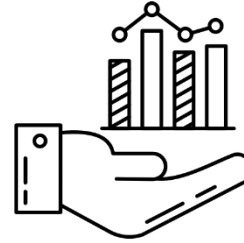
- Screen time control ensures that students do not use the PLDs excessively
- School and/or parents/guardian control installation of applications to ensure that the device is used optimally for teaching and learning
- Safe search and additional web content filtering protects students from harmful content
- Parents/Guardian can monitor usage and activities by students



Types and Purpose of Data Collected by DMA



**Data for DMA
Administrative
Purposes**



**Data for
Application
Management**



**Data for Web
Content Filtering**



**Data for Sharing
Students' Screen**



Types and Purpose of Data Collected by DMA



Data for DMA Administrative Purposes

Essential for DMA and lesson set up and management of devices through DMA

Examples:

- Students' and parents'/guardians' information (Name, school name, email addresses, and class)
- Apps installed in your child's/ward's PLD
- Device and hardware information (e.g. device model, storage space)

Accessible by:

- Teachers
- Parents/Guardians (for activities after school hours)
- DMA Administrators in school and at MOE
- DMA Vendors



Types and Purpose of Data Collected by DMA



Data for Web Content Filtering

Filtering of harmful content to ensure students' cyber safety

Examples:

- URLs accessed on the PLDs (*Actions performed on websites are **NOT** captured*)
- Date and time of the access
- Student profile (Name, School name)

Accessible by:

- Teachers (for activities during lessons)
- Parents/Guardians (for activities after school hours)
- DMA Administrators in school and at MOE
- DMA Vendors



Types and Purpose of Data Collected by DMA



Data for Application Management

To ensure that the installed apps are updated and functioning properly

Examples:

- Installed apps and programs
- Date and time that the apps and programs were last updated
- Application error data

Accessible by:

- Teachers (for activities during lessons)
- Parents/Guardians (for activities after school hours)
- DMA Administrators in school and at MOE
- DMA Vendors



Types and Purpose of Data Collected by DMA



Data for Sharing Students' Screen

To allow teachers to check that students are on task, and address possible questions in class

Examples:

- Only the streaming of 'live' screen view (*The screen view will **NOT** be stored*)

Accessible by:

- Teachers during lessons only



Data collected by DMA

Data Collected and Access Rights

- All user data collected through the DMA will be stored in secure servers managed by appointed DMA Vendors with stringent access controls and audit trails implemented. The DMA solutions used are cloud-based Software-as-a-Service (SaaS) solutions and are trusted solutions that have been operating for many years. They have also been subject to regular security review and assessment by independent reviewers.
- MOE has assessed and concluded that the DMA solutions have sufficient security robustness to ensure data collected are properly stored and protected. MOE will also subject the DMA Vendors to regular audit on the security of the system based on tender requirements.



Data collected by DMA

Data Collected and Access Rights

To prevent unauthorised access, DMA Administrators and DMA Vendors will be required to access their accounts using 2-factor authentication or the equivalent to ensure proper accountability for information access and other activities performed. There will be regular account reviews and audits for DMA Administrators' and DMA Vendors' accounts.

