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ADMISSION TICKETS TO ARTSCIENCE MUSEUM'S PERMANENT EXHIBITION

State Of The Art
Pushing the boundaries of art with technology

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Bite into National Day-themed mini treats

Click Away
Make a toy camera for pretend play

Beanstalk

JUL-SEP
2022

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ALL HANDS ON TECH

How technology shapes innovation and learning in the early years

5
TIPS TO KEEP
children
safe online

NEXT-GEN GADGETS
Imagine what the future of tech will look like

TRANSFORMING THE EARLY YEARS

Technology has permeated every aspect of our lives, changing the way we live, work, play, learn and communicate.

In our preschools, technology is transforming daily operations and work processes to deliver better service. This helps educators streamline their workload so that they can focus on children's learning and curriculum development, as well as their own professional development and well-being.

Purposeful use of technology can create blended learning environments, enabling our educators to leverage the science of learning and introduce new ways of learning. It can also spark children's curiosity and motivate them to learn more about the world we live in.

For our educators, technology offers alternate avenues to engage in professional discourses and online projects and improve their pedagogical skills and practices. They can even participate in peer-led virtual discussions with their counterparts, both locally and overseas, and collaborate on projects.

Preschools can also use technology to engage families and the community by offering digital channels to update the children's learning journeys, solicit feedback on preschool programmes and attract parent volunteers to help out.

As Singapore moves towards post-COVID-19 normalcy, ECDA is shifting back to conducting physical events but will harness technology to introduce hybrid modalities to allow more educators to participate. Specifically, we will introduce this at the inaugural Early Childhood Celebrations on 29 October 2022, which combines the ECDA Awards, the SPARK Certificate Presentation Ceremony and the 'Start Small Dream Big' Finale. We look forward to our preschool educators and operators joining the celebrations, either in person or virtually.

As Bill Gates put it, "Technology is just a tool. In terms of getting the kids working together and motivating them, the teacher is the most important." ECDA wishes to say a big thank you to all our educators for your tremendous efforts in nurturing our children and keeping our young safe over the past two-and-a-half years.
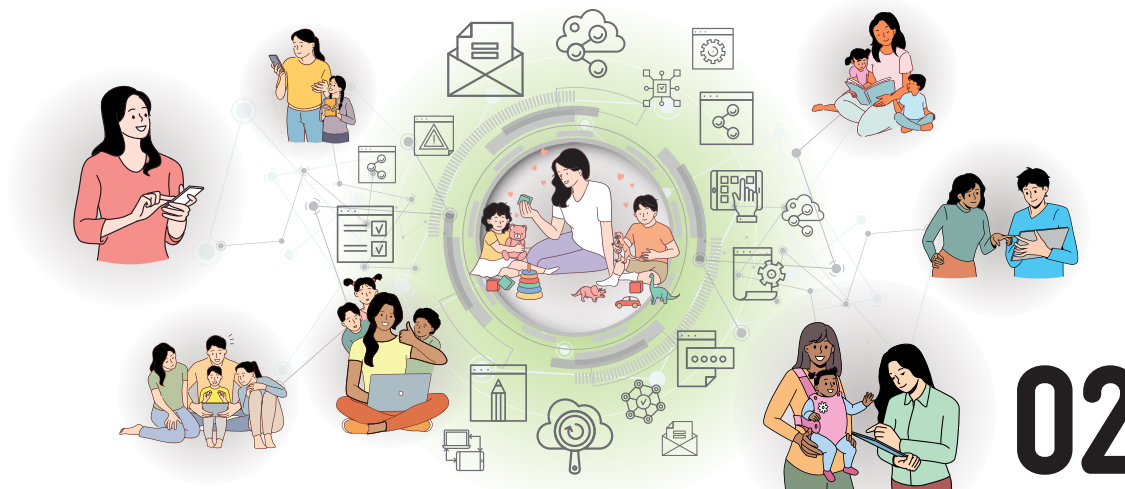
Happy Teachers' Day to all our educators!

MR TAN CHEE WEE
Chief Executive Officer
Early Childhood Development Agency (ECDA)

02

| CONTENTS |

Some photos in this issue were taken before the Circuit Breaker period, and feature children/adults without masks on.

ON THE RIGHT TECH

THE ROLE OF TECHNOLOGY AND INNOVATION IN EARLY CHILDHOOD EDUCATION AND WHY THEY ARE CRUCIAL.

The pandemic has accelerated the adoption of technology in the early childhood (EC) sector — for learning, teaching, connecting and working. It can optimise children's learning and development, shares Ms Emily Toh, a lecturer at the National Institute of Early Childhood Development.

Her observation is based on a study she was involved in, where robotic puppets were used by preschoolers to develop play scripts. Not only did the children actively engage in cognitive processes such as planning, experimenting and making decisions, but they also interacted with their peers to discuss various play scenarios. "The use of technology has the potential to improve children's thinking, creativity, imagination, social interaction and independence," says Ms Toh.

As information and communications technology (ICT) evolves, educators and parents need to keep abreast of the latest developments and be deliberate about incorporating these innovations in preschool and at home. *Beanstalk* asked some for their views on technology, and how they reap its benefits while avoiding the pitfalls.

EDUCATORS, WHAT DOES TECHNOLOGY MEAN FOR YOU?

Nur'Aqilah Binte Abdul Malek: The use of technological devices, such as smartphones, tablets and laptops, has helped improve productivity. At our centre, each teacher is given a work phone to take attendance, record temperatures, and send circulars to parents via an integrated online platform. It allows parents to receive notifications and updates on their children, pay preschool fees and sign up for enrichment classes. It frees us from administrative work so that we can channel more time and resources towards programmes that create value for children.

Lee Chin Yen: Mobile apps are so helpful in engaging parents and strengthening partnerships. We can instantly liaise with parents through text messages and conduct online surveys to find out their concerns. During the pandemic, we stayed connected with parents via Zoom for curriculum briefings, workshops, parent-teacher meetings and even a Christmas carolling session.

3 CLICKS AWAY FROM UNSAFE CONTENT

When UK-based tech security company Kaspersky Lab did a search using the names of popular children's TV shows such as *Peppa Pig* and *Dora The Explorer*, they found that on average, users are just three clicks away from content better suited to a mature audience. Videos featuring swearing, violence, nudity and car crash compilations sit alongside clips of such children's programmes. The results highlight the risks of leaving children unattended on digital devices.

HOW DOES TECHNOLOGY SUPPORT CHILDREN'S THINKING, INNOVATION AND CREATIVITY?

Chin Yen: We select educational videos for different age groups based on their developmental milestones. For toddlers, storytelling videos help them learn proper sentence structure and articulation, and even do role-play. We also play short action songs for them to move their bodies creatively. Nursery children watch videos that teach concepts such as literacy and numeracy. For kindergarten children, we show videos of science experiments and art projects to spark ideas for classroom activities. We also encourage inquiry-based learning by showing video clips, such as news interviews, to motivate children to explore a topic further and think of innovative solutions.

Emily Toh: ICT can be used to enhance teaching and learning. For instance, to explain the butterfly life cycle, educators can start with an inquiry process where children discuss what they know so far and observe real caterpillars and butterflies. We can then use apps containing information, quizzes and activities to extend the experience and help children construct a deeper understanding of the life cycle stages. To follow up, children can create pictures or stories using either ICT tools or craftwork to document their learning. Such integration of real and concrete experiences, ICT and teacher-child interactions fosters an effective learning environment for our children.
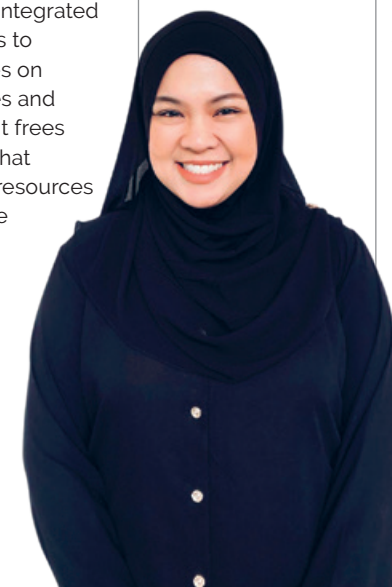
> 66 Technology frees us from administrative work so that we can channel more time and resources towards programmes that create value for children.
>
> **MRS NUR'AQILAH BINTE ABDUL MALEK, 32**
> Senior Teacher, Little Skool-House (On-The-Green)

Aqilah: I like the *Barefoot Books* collections of physical books, audio books and videos. During circle time, the children listen to audio books to enhance their listening skills and concentration. As children listen to an audio book, such as *The Animal Boogie*, they can flip through the physical storybook and make connections to the pictures they see. I read the book to them as well, mimicking the sounds of the animals and drawing their attention to certain parts of the illustrations. I also encourage parents to watch the animated video with their children at home, to reinforce their learning.

How do you ensure technology is used in a developmentally appropriate manner?

Emily: The focus of early childhood should be on learning through play and experiences with real objects and people. Use technology to support or expand children's learning of a topic, and not as an isolated activity or replacement for play time or outdoor experiences. Avoid passive and non-interactive ICT experiences for children, such as video screening without any clear learning objectives and facilitation.

Chin Yen: We are mindful of passive screen time. Hence, we keep video viewing to not more than 20 minutes depending on the children's age group, under the guidance of a teacher. We do not leave children to watch videos on their own.

Aqilah: Children aged between 18 and 36 months are not given any screen time at our centre, as we advocate learning through exploration, interactions and

> ❝ We encourage inquiry-based learning by showing video clips, such as news interviews, to motivate children to explore a topic further and think of innovative solutions.

MDM LEE CHIN YEN, 54
Senior Principal, Agape Little Uni. @ Jurong West

HOP ON!

All roads in the **Bunny Town Adventure**, Families for Life's new digital game, lead to loads of fun for young children. As they help Dad bake a carrot cake, find Grandma's lost shopping items, or blow balloons for Mum's birthday party, children also learn about the core family values of love, care and concern, commitment and respect. Play now at **go.gov.sg/ ffl-bunnytown adventure-nfw**.

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relationships. For older children, technology is used in conjunction with learning activities such as drawing, writing, reading and outdoor play. For instance, to demonstrate what 'biodegradable' means, we had children bury different objects in our preschool garden and dig them up after a month. Then we showed a short video that explained why some items are biodegradable while others are not.

PARENTS, WHAT ARE YOUR THOUGHTS ABOUT EXPOSING YOUNG CHILDREN TO TECHNOLOGY?

Clarissa Chan: Our concern is that too much exposure to electronic devices may lead to inattention, impulsiveness and poor short-term memory, resulting in behavioural and learning difficulties, as well as a hunched back. So we limit our son Avery's usage to 15-minute intervals. For example, 15 minutes of screen time is followed by play time with play dough and Lego, or art and craft activities which hone his fine motor skills.

Geetha Soundararajan: We also set limits on Abhimanyu's screen time at home. He likes to watch nursery rhyme music videos on TV, my phone or a tablet. But as our son is still very young, we let him use electronic devices for only one to two hours a week. Most of his time is spent on non-screen activities such as playing with toys or reading.

HOW DO YOU BALANCE CHILDREN'S USE OF TECHNOLOGY WITH NON-SCREEN ACTIVITIES?

Clarissa: At home, we do a lot of teaching through arts and crafts and pretend play. We spend more time with Avery doing non-screen activities. Fortunately, he prefers the outdoors and hands-on activities to screen time.

Aqilah: While using technology can help children learn, explore and solve problems, they do learn best by using their senses to explore, through interactions and asking questions. It is also important for teachers to have clear guidelines on the frequency and purpose of using technology.

> ❝ As our son is still very young, we let him use electronic devices for only one to two hours a week.

MDM GEETHA SOUNDARARAJAN, 39
Customer Care Team Manager, mother of C. Abhimanyu, 20 months

Emily: Technology can certainly enhance children's engagement and understanding of topics and themes. For example, virtual reality tools can be used if physical travel is not possible. While sights and sounds can be presented well with digital tools, a non-digital experience should also include opportunities for children to engage their sense of touch, taste and smell.

WHAT ARE YOUR VIEWS ON SHARING POSTS ABOUT CHILDREN ON SOCIAL MEDIA?

Clarissa: I like that most parents on social media give support and encouragement, even if we don't know each other very well. I post about Avery's developmental milestones, achievements and challenges on my Instagram account every few days.

Geetha: I share stories about Abhimanyu privately in chat groups with family members, such as his funny antics, new developmental milestones and daily photos.

Chin Yen: Weekly updates and posts on our closed Facebook group are for parents only. The class happenings always put a smile on the faces of parents and staff.

> ### SHARENTING: GOOD OR BAD?
> **Clinical psychologist Dr Quah Saw Han highlights some concerns and offers tips to keep children safe.**
>
> Sharing children's achievements, milestones and funny antics on social media, or 'sharenting', is an increasingly common way for parents to document their growth. It is also a way to connect with other parents, share knowledge and seek support. Yet this practice is not without its risks.
>
> Parents often do not seek children's consent before posting their photos and videos online, as they are too young or simply not asked. What a parent deems as "cute" could potentially be embarrassing or hurtful for the child in future. For example, a chubby baby photo may be used by a peer to bully. Sharing personal details like birth dates also puts them at risk of identity theft. Furthermore, children's images may be doctored and circulated in immoral networks.
>
> To respect children's privacy and minimise harm to their well-being, here are some things to keep in mind.
>
> - Don't share pictures of your child in any state of undress.
> - Don't set up social media accounts for your child using their name, age and location.
> - Read the privacy policies of online sharing sites.
> - Set up alert notifications for when your child's name appears in a Google search result.
> - Consider sharing anonymously.
> - Consider setting up closed group sharing for family and friends instead of making posts or photos public.
>
> With precautions in place, sharenting can be a great way to keep precious family memories for posterity.
>
> *Dr Quah specialises in child welfare and also sits on the Ministry of Social and Family Development's Advisory Panel on Parenting.*

> ❝ Our concern is that too much exposure to electronic devices may lead to inattention, impulsiveness and poor short-term memory.

MRS CLARISSA CHAN, 33
Marketing Manager, mother of Avery Chan, 3

Emily: Technology has created wonderful opportunities for parents to document their child's development through videos, photos and comments on social media. But they should also be aware of the risks. Sharing too much personal information about children online may lead to violation of their privacy and identity theft.

WIRED FOR LEARNING

EARLY CHILDHOOD EXPERT DR PETER L. MANGIONE EXAMINES HOW TECHNOLOGY AFFECTS BRAIN DEVELOPMENT IN THE FIRST THREE YEARS OF A CHILD'S LIFE.

The most important ingredient for healthy brain development during the first three years of life is responsive, nurturing relationships.

When an adult interacts with an infant in responsive, predictable ways, the infant develops communication skills and learns the sounds and patterns of that language. By attentively reading the infant's cues, the adult can give responses that connect with their interests and needs. The infant's developing brain makes connections and learns.

A DOUBLE-EDGED SWORD

Technology, particularly screen time, can have both positive and negative effects on young children's development. On one hand, it can be beneficial when both adult and child jointly watch a screen and communicate about it, such as the child showing an interest in a photo on a smartphone taken by the adult.

However, technology can interfere with the interactions between children and adults. Adults tend to be less attentive and responsive when using a smartphone while interacting with infants. This may adversely affect an infant's language learning and the quality of routine care.

Offering independent screen time to an infant or toddler is another area of concern. It takes away time from when the child would otherwise use their senses and emerging motor skills to explore and manipulate objects, make discoveries, and move with increasing skill.

WHAT PARENTS CAN DO

To mitigate the negative impact of technology and amplify its benefits:

> **OBSERVE YOUR CHILD WITHOUT ANY DISTRACTIONS.** Seeing their development unfold is far more interesting than what digital devices have to offer.

> **MAKE SCREEN TIME A SHARED ACTIVITY.** Be reciprocal based on where your child's attention is. They may focus on a different part of the screen from you.

> **GIVE FULL ATTENTION TO YOUR CHILD WHEN INTERACTING WITH THEM.** Watch and respond to their cues. Doing so communicates that "I am with you and I'm interested in our time together."

> **PROVIDE PLAY MATERIALS FOR OPEN-ENDED EXPLORATION AND DISCOVERY.** Observe what interests your child. Offer related materials to encourage self-directed learning.

Enjoy your time together with your infant or toddler. Showing attentive love and responsive engagement will strengthen your child's attachment security and create the best possible support for their rapidly developing brain.

KEEP WATCH

Local researchers at the Centre for Holistic Initiatives for Learning and Development (CHILD) have released a set of recommendations for children's digital media use.

Drawing on data from the *Growing Up in Singapore Towards Healthy Outcomes* study, the team found that high levels of screen time during the early years can affect cognitive and social-emotional development as well as the ability to focus and pay attention, remember information, and perform tasks simultaneously. Infant brains require more time to process images from two-dimensional screen formats which can overwhelm their attention capacities. Excessive screen time may also displace opportunities young children need for learning and social development — such as interacting with caregivers in play activities, and being involved in language exchanges.

Based on their findings, CHILD offers these pointers for parents:

● **Do not allow passive screen time for children below 18 months.**

● **Limit unsupervised passive screen viewing for children between 18 and 36 months to not more than one hour a day.**

● **Avoid fast-paced content as it may affect children's ability to be attentive.**

"Development and modelling of healthy screen habits starts young and starts from home. Involve grandparents and helpers too," says Assistant Professor Chong Shang Chee, Deputy Director, CHILD, NUS Yong Loo Lin School of Medicine. "Ensure children are not left to their own devices, literally!"

Find out more at **thechild.sg/resources-publications**.

DR PETER L. MANGIONE
Senior Director of Early Childhood Strategic Initiatives, WestEd, USA

Dr Mangione directs the Program for Infant/Toddler Care, an internationally recognised model for EC professional development. He has lent his expertise to ECDA's Early Years Development Framework, a key resource for educarers in Singapore.

LANGUAGE TOOLS

USE DIGITAL DEVICES PURPOSEFULLY TO SUPPORT LEARNING OF MOTHER TONGUE LANGUAGES.

ICT tools can make language learning more fun and create opportunities for social interaction

Digital devices can make mother tongue languages (MTLs) come alive, but they cannot replace quality interactions between a child and a teacher, says Mdm Corinne Fan, Lecturer at the National Institute of Early Childhood Development – Ngee Ann Polytechnic Campus.

Information and communications technology (ICT) tools should be used moderately to create authentic learning opportunities that complement the MTL curriculum. "ICT should allow children to apply what they have learnt in class and relate it to everyday life. This makes the language functional and purposeful," she adds.

ICT IN TEACHING PRACTICES

Mdm Fan offers some examples of how ICT can be used. Content can be presented through augmented reality apps, where computer-generated images and words are superimposed on views of the real world to build children's vocabulary on a specific topic, such as fruits or animals. Reading activities can be supplemented with a stop-motion app that allows children to record selected scenes from the story and narrate it using words and sentence structures they have just learned. Outdoor walks can be captured in photos and audio recordings and turned into interactive presentations where children practise new words.

She recommends the A to G guide when using ICT for MTL learning:
● **A**lign with planned learning objectives.
● **B**ring children together and promote interactions among children or between children and teacher.
● Promote **C**reativity.
● Promote **D**iscovery learning.
● Be **E**asy for children to use.
● Be **F**un and engaging for children.
● Be **G**uided by teachers throughout the process.

CONNECT WITH CARE

At PCF Sparkletots @ Chua Chu Kang Blk 10, Tamil Language Teacher Mdm Balamurugan Shanthi makes lessons fun and engaging with technology. She created riddles that children could solve by scanning QR codes with an iPad. To motivate children to speak up, she devised an online spin-the-wheel game, projected from a laptop to a screen.

Mdm Shanthi notes that incorporating ICT tools in the classroom has improved children's attention and engagement. "Ensure that the content engages children meaningfully. Think about the types of social interactions that will happen when using the device, and whether it complements their learning experience. The technology should match their needs, abilities and interests at each stage of development, and ICT use should be closely supervised by adults," says Mdm Shanthi.

At home, she recommends that parents supervise, schedule and limit screen time. "Do not let children use devices as and when they like. Mealtimes and family time should be solely for interacting and communicating with one another, and devices should be put away." ●

TIPS FOR TEACHERS

➡ **Familiarise yourself** with the selected ICT device/resource. Ensure it is safe, age-appropriate and easy for preschoolers to use.

➡ **Don't leave children unattended** when using ICT tools. Give clear instructions, guide their learning and affirm their efforts.

➡ **Teach children healthy habits** such as adopting a good sitting posture and limiting time spent on devices.

➡ **Don't use too many devices/resources** and stress yourself out. Stick to the few you are familiar with.

Photos of outdoor walks can be used to deliver engaging presentations

DON'T BE TONGUE-TIED!

Educators, parents and children can discover ways to make language learning fun at the **Mother Tongue Languages Symposium 2022**. Starting on 27 August, highlights include online sharing sessions, interactive workshops, storytelling sessions, an Online Quest and an Explore@MTLS activity package. Visit **www.mtls.edu.sg** for more.

ALL TECH-ED OUT

DIGITALISATION IS CHANGING TODAY'S PRESCHOOL OPERATIONS, CLASSROOMS AND RELATIONSHIPS IN POSITIVE WAYS.

FUND YOUR DIGITALISATION

Over $4 million has been set aside to help preschools defray the cost of adopting pre-approved digital solutions. Preschools can apply for the Early Childhood Digitalisation Grant at **www.businessgrants.gov.sg**.

COMMUNICATING WITH PARENTS

KEEP PARENTS IN THE LOOP: Home-preschool partnership is enhanced with the use of apps that improve communication between parents and educators. Parents feel assured and involved in their children's development. The Taidii system used at **Posso Preschool @ West Coast Rise** provides a one-stop platform where teachers can:

- Message parents directly to update them on their child's progress
- Disseminate circulars and announcements on events and projects
- Upload children's portfolios via Taidii's e-portfolio function

Sharing this information on a digital platform does away with time-consuming printing and filing processes, giving educators more time to interact with children. Going paperless also allows the preschool to be more eco-friendly.
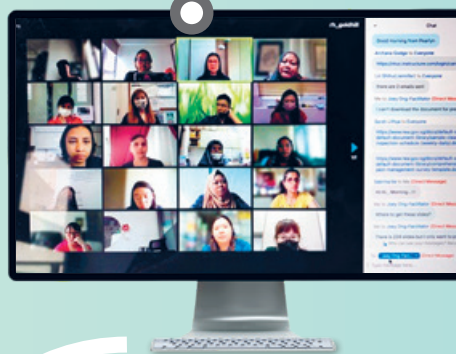
HOW THEY DID IT

Hear about Posso Preschool @ West Coast Rise's digital solutions from its staff and a preschooler. Find out how other preschools can get support too. **go.gov.sg/ startdigitalising-preschools**

DROP-OFF

SCAN A QR CODE TO MARK ATTENDANCE: The attendance-taking process is shortened as educators no longer need to record details manually. **The Gardner Preschool** uses the Havence system to mark attendance by scanning a child's unique QR code or by keying his name in the app. A Bluetooth thermometer records the child's temperature and automatically transmits the data to the app.

LOG IN VIA APP FOR CONTACTLESS TRACKING: Parents enjoy an efficient drop-off process at **Posso Preschool @ West Coast Rise** by using the Taidii app for contactless sign-in and sign-out procedures, as well as temperature-recording.

REGISTERING VISITORS

KEEP TRACK OF VISITORS: At **The Gardner Preschool**, service providers such as aircon maintenance workers log their details and purpose of visit via the Havence app. The app captures actual visits in the system, which allows for contact tracing, ensures the safety and security of children, and can be retrieved for billing purposes. Guests on preschool tours are also required to provide their particulars in the app.

MEETINGS, TRAINING & GRADUATION CEREMONY

ORGANISE VIRTUAL GET-TOGETHERS: Faced with restrictions on big-group meetings during the pandemic, **Raffles House @ Paya Lebar** turned to Zoom to carry out staff meetings, in-house training and parent-teacher conferences. The preschool also organised a K2 graduation ceremony over Zoom, which ensured junior graduates and families were not deprived of this milestone event.

LEARNING TOOLS

OPEN UP NEW CREATIVE POSSIBILITIES: Digital devices, when used purposefully, can nurture creativity and enable children to express themselves readily. **Star Learners @ Boon Keng** enhances its literature-based curriculum using the iPad and Apple apps like Camera and Pages. While children use conventional writing materials such as pencils, crayons and markers in their day-to-day activities to develop eye-hand coordination and fine motor skills, with the iPad, children are able to experiment and get creative with different digital drawing tools and fonts. They use the Camera app to take photos of materials, and insert their photos into a digital activity sheet on the Pages app.

USE TECHNOLOGY IN NOVEL WAYS: With the creative use of technology, **PCF Sparkletots @ Pioneer Blk 661B** transformed its 'Story Comes Alive' programme into a stimulating and immersive language-learning experience for children. For example, educators dramatised a tale through shadow play, using a projector and white screen along with props like puppets and musical instruments to engage the children.

CURL LIKE A PANGOLIN

GO ON VIRTUAL EXCURSIONS: Virtual field trips bring the outside world into the classroom. Children can engage in enriching and discussion-fuelled experiences to complement their learning. When outdoor excursions were suspended due to the pandemic, educators at **Bright Kids @ Pasir Ris** organised a virtual trip to the Singapore Zoo via the Zoom app. The event was hosted live by zookeepers, followed by a real-time music & movement activity, a Q&A session and polling via the Slido app. Teachers also used 360° videos on YouTube to extend children's learning. One such video allowed children to 'tour' a farm by swiping and clicking on their devices.

AT YOUR SERVICE Find out if your preschool is digital-ready with the Chief Technology Officer-as-a-Service tool! An initiative by the Infocomm Media Development Authority, CTO-as-a-Service enables small and medium enterprises, including preschools, to self-assess their digital readiness and needs, search for and compare solutions, and engage digital consultants for advisory and project management services. Visit **go.gov.sg/ctoaas-ecda** or scan the QR code to find out more.

ALL IN A DAY'S WORK

KRISHANTHI VIJAYA, ECDA'S PROMISING EARLY CHILDHOOD TEACHER IN 2021, GIVES *BEANSTALK* A PEEK INTO HER TYPICAL WORKDAY AT SKOOL4KIDZ PRESCHOOL @ SEMBAWANG CANBERRA EAST CROWN.

7am "I start the day by preparing the classroom for the **children's arrival**. After a quick run-through of my lesson plan for the day, I make sure all the materials, including those for learning centre activities, are ready for children to use."

GOOD MORNING!

8.30am "**Morning drop-offs** are a good time to build rapport with parents with a smile or a quick chat as they are rushing for work. I relay important messages and highlight key events happening in preschool. Parents can give me an update on how their children are doing and any issues at home."

SQUIRREL?!

WOW!

9am "The curriculum comprises **small- and large-group activities** with hands-on and interactive experiences to engage the children and facilitate learning in different domains, such as language and numeracy. I want children to enjoy learning and have a curious mind. This means being tuned in to their interests and adapting the lessons based on their needs. I also encourage them to ask questions and share their ideas and opinions."

12pm "**Lunchtime** is precious as the children and I bond over conversations such as what they like to eat, the nutritional value of food and where it comes from. Such discussions broaden their understanding of the world. This is followed by **toileting time**, where we talk about conserving water and personal hygiene. Learning self-help skills, such as feeding and cleaning themselves, builds confidence and fosters independence."

YUMMY

1pm to 3pm "While children are **napping**, I get to unwind and relax a bit, have lunch and bond with my colleagues. Taking a break is necessary for my well-being. I then reflect on my morning lessons, plan follow-up activities, and get a head start on preparing resources for the next day. As acting senior teacher, I also spend some time catching up with newly-recruited teachers to find out how they are doing."

3.30pm "I work closely with learning support educators to provide differentiated instruction for children. It ensures that each child learns to the best of his or her ability. For **small-group teaching**, I provide activities where children can self-check their answers. This allows me to pay more attention to those who need additional support. Working independently, in pairs or small groups, the children participate in hands-on activities and use concrete, familiar objects to understand new concepts."

I WANT THAT STAR!

5pm onwards "When **my work day ends** and the children have left, I tidy up and get my classroom ready for the next day. It is a good time to reflect on my teaching practices and the children's learning, note down my observations, and come up with creative ways to document and display their work. This gives children a sense of pride in knowing that their efforts are valued and allows them to appreciate their friends' work as well."

SEE YOU TOMORROW!

SAY THANKS!
It's Teachers' Day on 2 September! Don't forget to express your appreciation to educators like Ms Krishanthi for the role they play in giving a good start to every child. ♥

LEADING LIGHT

AN EFFECTIVE LEADER IS ONE WHO NURTURES EDUCATORS, WORKS WITH PARENTS AND EMBRACES TECHNOLOGY, SAYS AWARD-WINNING PRINCIPAL PEARLYN TAN.

Ms Tan (right) gives her team of educators the autonomy to plan and tweak lessons based on children's needs and interests

As the Executive Principal of NTUC First Campus' My First Skool at 49 Rivervale Crescent, Ms Pearlyn Tan cites three tenets of effective leadership — being able to influence and inspire, leading by example, and embracing lifelong learning. These helped her clinch the ECDA Outstanding Early Childhood Leader Award in 2021.

LEADERSHIP ESSENTIALS
Ms Tan believes in nurturing a team of educators who are reflective and intentional in their teaching practices and have a sense of empowerment. Monthly curriculum meetings allow teachers to discuss and review teaching practices. They are also given the autonomy to plan and tweak lessons, based on the children's diverse learning needs and interests.

To promote a supportive and respectful work culture, Ms Tan has put in place a buddy system. New educators are partnered with senior educators, who provide guidance on teaching methods, care for children and communication with parents.

Professional development is vital for teacher quality, Ms Tan emphasises. "In addition to mentoring and internal curriculum meetings,

I encourage teachers to attend training to enhance their knowledge and skills and have in-depth conversations about their learning."

REACHING PARENTS THROUGH TECH
"As a child's first teachers and our co-partners, parents should be part of their children's learning and development," says Ms Tan, who plans at least 10 parental engagement activities a year. "I work with educators to bolster their confidence and skills to provide parents with the appropriate support to facilitate their children's development."

The situation created by COVID-19 and Safe Management Measures (SMMs) opened up new possibilities for using technology to maintain communication channels and sustain connections with parents. Parent-teacher conferences and orientations were conducted virtually. Parents received regular updates on their children's learning activities via a Digital Parent Portal. Ideas for craftwork, teacher-guided reading sessions and other resources were also made available for parents on My First Skool's Home Learning Portal.

Parents used the centre's learning resources on the Home Learning Portal

BUILDING DIGITAL LITERACY

How parents can help children make sense of messages in digital media.

- **Consume media with children.** Explain what is happening when watching an educational video or playing a digital game together, instead of using these as time-fillers.
- **Use current issues to ask questions or role-play.** Ask questions such as "How do you feel about this news?" or "What would you do in this situation?". Children learn to think about what they read and see online and can better discern what is authentic.
- **Set limits and offer alternative activities.** Encourage children to engage in offline play, indoors and outdoors, that promote exploration and stimulate creativity and innovation.

Mrs Pamela Chua, whose son Ian, 2, attends the preschool, is a fan of the Home Learning Portal. "It has practical resources and activities which we can easily access at home. Engaging in these activities with Ian has helped us extend his learning and strengthen family bonds," she says.

"Technology is a useful tool, which allows us to engage and involve parents in their children's development," Ms Tan acknowledges. "However, there is a caveat. Technology cannot replace face-to-face interaction and communication to build close rapport and trust with parents. A blended approach is advisable." ●

WATCH THIS! Scan to hear Ms Pearlyn Tan's philosophy on leadership practices.
go.gov.sg/ecdaawardwinner-pearlyn

A SPACE TO CREATE

THOUGHTFUL DESIGN AND USE OF SPACES CAN FOSTER A SPIRIT OF INNOVATION.

"Our learning spaces are ever-changing," says Ms Lim Yu Jie, principal of Between Two Trees Preschool, which clinched the 2021 ECDA Outstanding Centre for Teaching & Learning Award. "They evolve according to the development of class projects, as well as teachers' observations of the children's development and interactions."

FUNCTIONAL YET FLUID
Inspired by Reggio Emilia's approach of the environment as the third teacher, the centre plans intentional spaces with thought-provoking materials for children to connect with, reflect, and generate further questions and discussions. For example:

- The **Art Space** is stocked with brushes of varying sizes and purposes, ink, watercolours, cloths, papers and other materials. It encourages freedom of expression as children work in groups, in pairs or individually to create.

Regularly updated wall and shelf displays reflect children's interests and learning activities

The physical environment at Between Two Trees Preschool promotes both collaborative and independent learning

- The **Blocks Area** provides loose parts such as building blocks, paper towel rolls and bottle caps, for open-ended play.
- The **Provocation Area** is designed to build on children's interests. Books, figurines, natural materials such as pinecones, coconut husks, pebbles and soil, and other objects are replaced frequently, based on the direction of class projects.

Wall and shelf displays showcase the children's art pieces and photos of them engaging in these activities. Besides promoting a sense of belonging, children can revisit their works and reflect on the processes. Often, they are seen to engage in conversations as they describe the installations to others.

GOING WITH THE FLOW
Ms Sharon Lim, the centre's deputy supervisor and curriculum specialist, believes that being prepared to deviate from the planned curriculum is integral. "Lessons can change based on teachers' observations of the children's interests and experiences. We need to be flexible as teachers."

For example, when three-year-olds became interested in airplanes after seeing them fly over the playground, transportation toys and pictures of aircraft were added to the Provocation Area. Educators also planned experiences for them to explore vehicle sounds when

they were fascinated by the sound of planes overhead.

When the focus of interest shifted from planes to trains, educators created dramatic play opportunities by setting up a corner resembling a train station. Photos of trains and buses were also put up in the Blocks Area to inspire children to build independently or collaboratively.

DIGITAL DIMENSION
"As digital technologies become an integral part of our daily lives, we recognise they can be a great teaching aid in our classrooms," says Ms Sharon Lim. Guided by their teachers, children use laptops and tablets to research project-related information and watch videos. Apps like Zoom are used to engage in dialogue with experts, such as a scientist dad who gave a talk about his job making prostheses for people with disabilities.

One tech-enabled experience saw the children 'swimming' in the deep. Shares Ms Lim Yu Jie, "We used a projector to screen images of ocean life, and children pretended to be divers moving among the sea creatures!" ●

> **I like playing with blocks because we can create a house or build a hotel. It's like making your own game!**
> **ALEXANDRA GAN**, 5

WATCH THIS! Get a closer look at Between Two Trees Preschool's child-first approach.
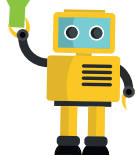**go.gov.sg/ecdaawardwinner-betweentwotrees**

Children get hands-on computer experience at ChildFirst @ Tampines

APP-SOLUTELY ESSENTIAL

NURTURING DIGITAL LITERACY THROUGH HANDS-ON LESSONS WITH COMPUTERS, ROBOTS AND APPS.

"Digital literacy is an essential skill for children to navigate a society where technology has permeated almost every aspect of our lives," says Ms Lean Wei Lin, a teacher at ChildFirst @ Tampines. Technology is in fact part of the centre's curriculum.

CRACKING THE CODE

Technology classes are held weekly across nursery and kindergarten levels. Children learn about using computers, apps and digital tools, coding and programming robots, and media production. The curriculum is curated to ensure that it is developmentally appropriate for the different age groups.

Children at the N2 level are concrete thinkers who are not yet able to grasp abstract concepts, so the centre engages them actively through their senses. Instead of screens, teachers use songs, games and outdoor walks to introduce the concepts of up, down, left and right. These directional movements lay the foundation for coding.

As children progress to K1, they learn to use a tablet to code and control a more sophisticated robot. They also begin to format email messages, use search engines and presentation apps, and host virtual meetings. Working together in small groups creates opportunities to develop social-emotional skills such as sharing and taking turns.

"The use of technology does not replace traditional forms of learning to read or write. Integrating digital and traditional literacies can create

> "In preschool, Blyss learned to use Internet search engines to look up animal photos. She then used the same search engines to find images of words on my mobile device. This helped hone her English literacy skills.
>
> **MS WONG YIJUN,** mother of Blyss Chen, 5

meaningful learning experiences," Ms Lean adds. For instance, the K2 class uses an animation app to create stories and produces print advertisements on a computer. This helps develop their language skills as well.

SOCIAL SECURITY

To address parents' concerns that exposure to technology may make children socially awkward, the centre emphasises peer learning and group work during technology lessons.

Ms Lean elaborates, "For every new concept introduced, children are encouraged to explore it independently first before collaborating with others on a project that sums up their learning. This ensures each child understands the concept and has opportunities to develop social skills and relationships." ●

TOP TECH TIPS

DO

✓ **DO** choose apps that are age-appropriate and stimulate children's thinking, creativity and problem-solving abilities.

✓ **DO** ask questions when children are engaging with tech toys or apps. Make a connection between what is happening on screen and real-life situations.

✓ **DO** be patient. Some concepts may be overwhelming for children.

DON'T

✗ **DON'T** use technology as an electronic babysitter in the classroom or at home.

✗ **DON'T** be fearful of technology. Learn alongside the children.

Scan for more tips from Ms Lean on embracing digital skills in the classroom.
go.gov.sg/bedigitalready-educators

SPARK **MORE SPARK!** SPARK-certified centres, such as ChildFirst @ Tampines, are recognised for their continued efforts in providing quality preschool education. See www.ecda.gov.sg/SPARKinfo for more information on the SPARK framework.

READING SOLO

USING DIGITAL BOOKS AND MULTI-SENSORIAL STRATEGIES TO NURTURE INDEPENDENT READERS.

Offline activities such as word games reinforce children's learning from digital stories

Educators at Greenland Childcare @ Punggol Drive observed that children loved listening to stories but would not pick up books to read by themselves. "They relied on getting teachers to read to them, instead of browsing through the pages on their own or attempting to read the words," says K1 teacher Ms Zakirah Binte Zakir.

Concerned about the effect of this on the children's language and literacy abilities, the centre conducted a Practitioner Inquiry (PI) project to explore ways to encourage independent readers. Their strategy was to use a multi-sensory approach.

MAKING SENSE

"Guided by how children learn and process information through their senses, we introduced activities and materials that engaged the senses of sight, hearing and touch. This gave the children more than one way to connect with what they were learning," explains Ms Zakirah.

The reading area was revamped into a 'Digital Stories' corner shared across N2, K1 and K2 levels. Tablets were installed with the First Steps app, which had animated stories with a read-aloud feature, interactive games and songs to develop language skills. To encourage both independent and peer learning, children could use the tablet to either read the stories at their own pace or read with a friend.

Six early reader digital books were introduced over four months. Each book focused on a specific word or letter sound, like 'f' (*Five Funny Fat Frogs*) and 'ch' (*Good Choice, Charlie*). The corner was equipped with homemade props, writing tools and puppets. Physical books were also included for children to revisit the stories and learn sight words, which are commonly-used words that children are encouraged to recognise. Activities such as word hunts, role-play and word-matching games were carried out to reinforce learning.

Over time, educators observed an increase in the children's interest in reading and improvements in their literacy skills.

SCREEN VS PRINT

One concern with the use of digital books was the risk of excessive screen time. Hence, educators intentionally stocked the library with a diverse selection of fact books, picture books, levelled books (with different levels of reading difficulty), magazines, comics and newspapers. A 'Wall of Fame' featuring photographs of those spotted reading in class also helped motivate children to pick up physical books.

Ms Zakirah adds, "We divided the Digital Stories corner into different activity areas — for tablets, physical books, games, etc. — and gave children a maximum of 15 minutes at each area. We found that they began to relate the digital learning with the physical resources at each station." ●

> To spark Zoe's interest in reading, I started a routine of reading bedtime stories together. She didn't dare to read books on her own at first. But after using the First Steps app in preschool, she has plucked up the courage to pick a new storybook and try to read it herself. Now, when we're reading together, she points out the words she knows.
>
> **MDM MADELINE HUANG,** mother of Zoe Goh, 6

Learning to read with peers

Keen to start a similar PI project in your preschool? Find out more at www.ecda.gov.sg/Educators/Pages/PI-Grant.aspx.

Q&A

TREAT TECHNOLOGY AS MORE THAN A REWARD OR REINFORCER.

FOR PARENTS

Q **It is challenging to get my child to complete his tasks (e.g. eating, putting away toys) without using the phone as a term of exchange. Help!**

It takes time and practice for children to learn to manage emotions and behaviour, just like learning to walk and talk. Instead of using punishment to control their behaviour, try a positive approach that aims to guide and support their development. Such an approach nurtures their intrinsic motivation to behave appropriately, encourages cooperation, and lays a strong foundation for dealing with difficult or stressful situations.

Tips for getting your child to complete a task or routine:

> **Involve him in solving the situation.** Talk about expectations and appropriate behaviour, and arrive at a solution with him. Giving your child room to make choices and decisions within boundaries supports his natural desire to feel capable and develops a sense of competency.

> **Help him do what was agreed.** Acknowledge your child's efforts when he did what you both had agreed on (e.g. practised a new skill, repaired a relationship). If further learning is needed, ask "What else can we do?".

> **Use 'time in' rather than 'time out'.** Stay close to your child to help him calm down and guide him to do better. When placed in 'time out', children are removed from guidance and interactions to help them understand the situation and modify their behaviour. The inappropriate behaviour is likely to continue as they mostly learn to avoid getting into trouble rather than do what is expected of them.

Q **How can I design the curriculum to maximise the benefits that technology brings for children?**

Traditionally, technology was a means of transmitting knowledge to children, for example, through slideshows and videos. The pandemic has accelerated how we harness technology to transform teaching and learning in preschools. No longer restricted by a physical classroom, we are now looking at a vision of 'preschools without walls' where children can access real-world, authentic learning experiences to broaden and enrich their worldview.

To integrate technology into the curriculum in a purposeful and meaningful way:

1. **Consider the SAMR (Substitution, Augmentation, Modification, Redefinition) model** developed by education researcher Dr Ruben Puentedura. Instead of merely substituting physical worksheets with online versions, use technology to redesign tasks or create new ones. For instance, show videos to extend children's understanding of a topic or current issue (e.g. global warming), and safely transport them to far-flung learning journeys around the world via virtual or augmented reality.

2. **Adopt differentiated instruction.** Ensure lessons are age-appropriate and allow children to learn at their own pace. A good resource is the Nurturing Early Learners Framework's guidelines on using information and communications technology.

3. **Provide access to all.** Give children, regardless of background, equal opportunities to access technology. This is potentially the greatest equaliser for our children.

FOR EDUCATORS

CHRISTINA VAN HUIZEN is a Social Service Fellow and Senior Assistant Director at the Community Psychology Hub. In partnership with preschools, she is the Team Lead for the Inclusive Support Programme (InSP) piloted by ECDA.

AVA WANG is a Senior Quality Specialist at My First Skool and an ECDA Fellow. As an EC practitioner for 27 years, she advocates lifelong learning and is passionate about coaching educators to uphold quality care and education for all children.

THRiVE

TIPS AND IDEAS FOR THE **PHYSICAL, LANGUAGE, COGNITIVE** AND **SOCIO-EMOTIONAL DEVELOPMENT** OF YOUR CHILD

Do you know that Singapore is one of only three modern city-states in the world? The others are Monaco and Vatican City.

learn

18 | How technology brings art to life

grow

21 | There's nothing like red and white bites for National Day

play

22 | Spark creative play with a homemade toy camera

Digital art like this projection of moving vehicles encourages the development of problem-solving skills as children need to facilitate the flow of traffic by moving giant blocks around

THE ART OF IMMERSION

Technology is driving innovation in how art is made and displayed, putting children at the heart of it.

Art can be so much more than dusty, two-dimensional masterpieces hung in quiet halls. With the advent of digital technologies, artists have new means of self-expression. As for museums, technology is transforming the visitor experience and making it more immersive and enjoyable, especially for young children.

"The use of technology enables 'look but don't touch' artworks to transcend the rule, and to become fluid and alive. Visitors can contribute to the artworks while the art responds to their presence," says Ms Emma Lee, Manager (Museum Education) at ArtScience Museum. Its permanent exhibition, *Future World: Where Art Meets Science*, does just that.

In the exhibition, visitors are able to engage with a collection of digital art installations that stimulate their senses while they interact with the artworks. For instance, children can 'touch' butterflies fluttering around the space and discover what happens to them. They can slide down an interactive display of flowers that blossom in response to the children's movements. They can co-create art pieces by sketching housing blocks or vehicles that are scanned and transferred to a virtual 3D townscape. They can also arrange giant blocks to create a network of roads, railways and waterways.

"Through these experiences, children gain knowledge about cause-and-effect and get to collaborate," says Ms Lee. "Most importantly, children are free to express themselves creatively. With no right or wrong answers, they can develop a curious mindset and learn to embrace new ideas."

FULL STEAM AHEAD

Art and technology are integrated into STEAM (science, technology, engineering, art and mathematics) education. This multidisciplinary approach helps children explore and understand the world in new ways. Ms Elaine Chan, Senior Manager (Learning) at National Gallery Singapore, explains, "Through STEAM, children are supported in learning about their environment. It enhances logical and critical thinking through problem-solving and experimenting, detailed observations as well as thoughtful reflection."

Consider the Gallery's *My INK-credible Adventure* exhibit, created by local artist Yeo Shih Yun. In this space, children are invited to fill up the digital canvas with colourful ink blobs, strokes and splatters through movements, sounds and body gestures. Nearby is the Ink Studio, where children can watch robots make brushstrokes at random and discover different ways to create an ink painting.

"Through art, children learn to describe what they see, and connect or compare what they see in the artworks with what they know and have experienced. Children are encouraged to consider an artwork from multiple perspectives, and use their imagination to create stories about it," says Ms Chan.

Children make art by using body movements and sound instead of paint in this interactive exhibit

Watching robots work their 'magic' with paintbrushes

Turning 2D sketches into virtual 3D models

She suggests some guiding questions to ask children:

- **Look & Describe:** What do you see in the artwork? What words would you use to describe it?
- **Explore & Discover:** What does this artwork remind you of? What do you find most interesting about it?
- **Imagine & Interpret:** What would you title this artwork? Why do you think the artist made it?

For families planning a visit to the museum, Ms Chan and Ms Lee share some tips to keep children meaningfully engaged:

- **Encourage your child to use their senses.** Ask what they see, hear, smell or touch. Play 'I Spy' together and take turns to identify shapes, colours and objects in artworks.
- **Let your child interpret art in their own way.** Bring a clipboard, paper and a pencil so that your child can sketch in the galleries. Invite them to pose like a sculpture or imitate the expression of a figure in an artwork. Talk about the artwork and share your thoughts and feelings about it.
- **Remember to have fun.** Allow sufficient time for an unhurried visit, including for open-ended play in the museum's play areas.

EXPERIENCE ART FROM HOME

Technology has made art easier than ever to access! Check out these online resources from the comfort of your living room:

- **ArtScience at Home**
  www.marinabaysands.com/museum/events/artscience-at-home.html
  ArtScience Museum presents online versions of its education activities such as talks, guided exhibition tours, hands-on art workshops and more.

- **GalleryKids!**
  www.gallerykids.sg
  National Gallery Singapore offers art tutorials, video stories, articles, games and other online art activities for families and children.

PHY-GITAL LEARNING JOURNEYS

When physical field trips to museums were suspended due to the pandemic, technology enabled the museums to bring their exhibitions to the preschools.

Earlier this year, K2 children at **Learning Vision @ Hwa Chong** participated in an online guided tour of ArtScience Museum's *Planet or Plastic?* photo exhibition under its *ArtScience at School* programme. The one-hour session gave them a close look at exhibits such as a photograph of popsicles made from contaminated water. It gave children insights into the effect of plastic waste on the environment and exposed them to the bigger picture of the global plastic pollution crisis.

"After the session, the children reflected on what they had learnt and came up with practical ways to reduce waste at home and in preschool. They created pledges to show their commitment as active advocates for the environment. At home, parents worked with the children to put their pledges into practice. They also brought recycled plastics from home and turned these into objects like pencil holders, as part of our centre's sustainability efforts," says Senior Teacher Ms Ng Jia Jia.

Children engrossed in the virtual tour

> I learnt about ocean pollution. We don't throw plastic and rubbish into the ocean because that will make it dirty. If the ocean is dirty, the creatures in it will not survive.
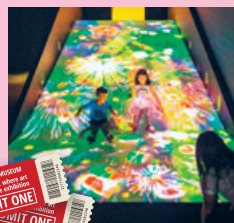
AARON JIROTMONTREE, 6

Reuse · Reduce · Recycle

Asking the tour guide questions during the live Q&A segment

# More To Explore

How to raise curious 21st-century learners.
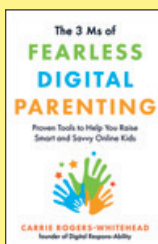
❯ The 3 Ms of Fearless Digital Parenting: Proven Tools to Help You Raise Smart and Savvy Online Kids

By Carrie Rogers-Whitehead
OverDrive link: nlb.overdrive.com/media/5808509

This book is a useful tool to help parents gain confidence in exploring the digital and technology minefield with their children. Through the '3 Ms' framework (Model, Manage and Monitor), parents and children will understand the different online media platforms and learn to use those platforms in a safe and responsible manner.

Contributed by Jade Teo, Associate Librarian, National Library Board
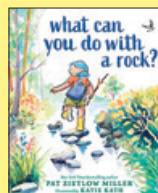
❯ What Can You Do with a Rock?

By Pat Zietlow Miller
OverDrive link: nlb.overdrive.com/media/6429184

An object can have many uses, and its possibilities are only limited by our imagination! In this picture book, children are encouraged to engage their five senses to discover the fun that a simple rock can bring. Be inspired to sort, build, play, share and more with rocks, as your child experiences the joy of creativity.

Contributed by Jia Ling Yap, Associate Librarian, National Library Board

LET'S GET REEL

Use technology to encourage critical thinking in different ways. For example:

● Engage your child in conversations when sharing screen time.

● Guide your child in thinking about what is on the screen to develop higher-order thinking skills such as analysing and evaluating.

● Encourage respectful behaviour when playing with others online, such as saying kind words and being patient.

For more parenting resources, visit **go.gov.sg/families forlifeparenting**.

FAMILIES for LIFE PARENTING

FOR YOUR DAILY DOSE OF EARLY CHILDHOOD INSPIRATION…

Grow@Beanstalk is your one-stop early childhood (EC) resource portal for inspiring stories, useful tips and activity ideas, as well as the latest happenings from the EC sector.

GROW@Beanstalk

Visit www.ecda.gov.sg/growatbeanstalk, or scan the QR code

Follow our Facebook page to stay updated and informed on the EC sector. You can also engage in healthy discussions with fellow educators and parents.

Beanstalk f

Connect with us at www.facebook.com/ BeanstalkSingapore, or scan the QR code

It's not just work when you work with children. If you aspire to make a lifelong impact, join us as an Early Childhood Professional to shape the next generation.

SHAPE OUR TOMORROW

Start a career in EC at www.ecda.gov.sg/ ShapeOurTomorrow, or scan the QR code

Check out our Instagram page for exciting developments in the EC sector. Be inspired by what educators say about giving a good start to every child.

Beanstalk

Follow us at @beanstalksingapore, or scan the QR code

Cherry On Top

Prepare these red-and-white mini bites for a National Day party.

Cherry cheesecake bites
MAKES 48

Follow these steps

1. **Preheat oven to 180°C.**

2. **In a bowl, combine cream cheese, eggs, sugar, vanilla and lemon juice with a wooden spoon or hand mixer until smooth.**

TIP! Use eggs and cream cheese at room temperature as they will blend more evenly and result in fluffy cakes.
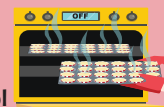
3. **Place mini cupcake liners in a 24-cup muffin tin. Put a vanilla cookie in each liner.**

4. **Top the cookies with cream cheese batter until it is ¾ full. Repeat steps 3 and 4 with another muffin tin.**

5. **Bake in oven for 15 minutes. Remove and let cheesecakes cool before storing in the refrigerator.**

6. **Top each mini cheesecake with cherry pie filling or jam before serving.**

Kids In The Kitchen
Let your child take a turn combining the cream cheese mixture, which helps build **arm strength**. They can also develop **hand-eye coordination** while assembling ingredients in the mini cupcake liners.

➜ WHAT YOU'LL NEED

- **450g cream cheese**
- **2 eggs**
- **¾ cup sugar**
- **1 tsp vanilla essence**
- **1 tbsp lemon juice**
- **48 small vanilla cookies**
- **1 cup cherry pie filling or cherry jam**

Cream cheese   Eggs   Sugar   Vanilla essence

Lemon juice   Small vanilla cookies   Cherry pie filling or cherry jam

Sign Of The Times

❯ **Products with the Healthier Choice Symbol** (HCS) are generally lower in saturated fat, sodium and sugar, and higher in calcium and wholegrains, compared to similar products in the same food category. Look out for these, and always eat in moderation!

Find out more at www.healthhub.sg/live-healthy/211/make_healthier_choice.

→ WHAT YOU'LL NEED

Small cardboard box

Flip-top lid (e.g. ketchup bottle lid)

Pen

Small bottle cap (e.g. milk carton cap)

Strong glue or sticky tape

Scissors or penknife

Wrapping paper, washi or coloured tape

Photo courtesy of www.ababyonboard.com

Through The Lens

Cultivate young shutterbugs with this fun camera craft.

Follow these steps

1. **Position the flip-top lid in the centre of the box and mark where the opening is. This will be the viewfinder.**

2. **Cut out two holes slightly smaller than the flip-top lid on both the front and back of the box, making sure they align.**

3. **Glue or tape the flip-top lid on the front of the box, with the opening over the hole. This will be the lens.**

   TIP! If you don't have a flip-top lid, use a toilet paper core or disposable cup cut down to size.

4. **Stick a bottle cap on the top corner of the box, for the shutter button.**

5. **Decorate with wrapping paper, washi or coloured tape. If you like, embellish with coloured markers, paint, stickers and other found materials, or make a strap out of a piece of ribbon taped to both sides of the box.**

Zoom In
HEY PARENTS! Use this DIY camera to spark **imaginative play** indoors and outdoors. Ask your child what they are 'photographing'; it can be real or make-believe. **Extend their learning** by looking at photos in newspapers, magazines or books, and initiate conversations about the subject matter.

Snap & Show
Your child's masterpiece could be featured in the next issue of *Beanstalk*! Submit a picture of your child's cardboard camera online at go.gov.sg/beanstalk-craft-submission or scan this QR code.

This craft is adapted from www.ababyonboard.com.

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5 TIPS TO KEEP CHILDREN SAFE ONLINE

GUIDE YOUNG USERS TO NAVIGATE THE INTERNET SAFELY AND RESPONSIBLY.

Besides watching videos and playing games online, today's preschoolers are also learning how to access the Internet for information, knowledge and communication. While this is important, Internet devices could expose them to dangers such as inappropriate content, cyber bullying, predators and identity thieves. Rather than completely restricting children's access to the Internet, parents should raise awareness of potential risks and guide them on how to address these.

1 KEEP DEVICES IN SIGHT
Monitor your child when they are using Internet devices. Check in to see what they are viewing online or intervene if they are spending too much time playing video games. Using devices in an open area, such as the living room or dining room, also deters children from doing something they know they are not allowed to do.

2 LAY DOWN RULES AND BOUNDARIES
Use a shared family device where children will need to seek permission or wait their turn. Limit screen time, or set a time and duration, such as allowing video games to be played for 15 minutes before dinner. Model positive online behaviour, such as respectful comments to friends' and family's social media posts. Explain what appropriate and inappropriate communication is, as well as cyberbullying.

3 DO YOUR HOMEWORK
Review apps and programmes to ensure they are suitable. Check browser histories and the recycle bin to vet the sites your child has visited. From time to time, sit with them to ensure the games they play and the videos they watch are appropriate. Have conversations with your child. For example, you can start with, "That looks like an interesting game. Can you teach me to play too?", and then use the opportunity to talk about appropriate content or online safety.

4 INSTALL PARENTAL CONTROLS
Adjust privacy settings on devices. Use parental controls to set screen time limits. Use safe search or content restriction settings on browsers to filter out inappropriate websites and content. If you use TV streaming services, set up profiles for different members. Block in-app purchases and disable one-click payment options. You can also disable camera and video functions to prevent children from accidentally taking and posting photos or video clips of themselves.

5 DISCUSS THE DANGERS
Talk about online dangers and how to recognise suspicious behaviour or activity. Some video games have in-game messaging features that may allow strangers to communicate with your child. Highlight the risks of communicating with people they do not know and divulging personal information (e.g. phone numbers, where they stay, which preschool they go to). When you come across dubious links or pop-up ads, explain why one should not click on them. Encourage your child to ask you if they are unsure or curious about what they see online.

For information on media literacy, visit **www.betterinternet.sg** or scan this QR code.

WE'VE GOT MAIL!

Parents share innovative uses of technology in their children's learning and play.

✉ Nature is the best learning tool. Every weekend, we bring our daughter Kayla out to parks and playgrounds and explore the nature around us. She can learn so much by looking, touching, smelling and listening. On one of our trips to the park, we found a saga tree. She was so amused by the little red seeds inside the dried pods and had fun searching for more. Then came the technology. We looked up what the flowers and young pods look like on our smartphone, which helped Kayla learn about colours and shapes. We also introduced mathematical problem-solving by adding or deducting the number of seeds.

SUPEE-ORN CHAN, mother of a girl, aged 5

Use technology to extend learning from a trip to the park

Identify your child's interest from digital platforms and bring it offline

✉ My son Luis is fond of watching cartoons that have cars in them. To support his offline learning, I help him draw cars on his writing board or in his notebook, and then we make up stories involving these cars. It's a good way to teach him new words, and he also learns to relate them to the scenarios he sees on TV.

BANASHREE MAHANTA, mother of a boy, aged 3

✉ To nurture my daughter Ayra's inquisitive mind, I started a 'Research Time' activity which incorporates YouTube videos into our home learning. Every week, she is free to explore any topic of interest, for example, how crayons are made. She types the question in the search engine box, and we pick out a suitable video to watch together. Then she draws or jots down notes in her 'Research Book'. Ayra looks forward to these weekly sessions. The whole process is child-led and gives her a sense of ownership over her learning.

ADILAH MOHD, mother of a girl, aged 6
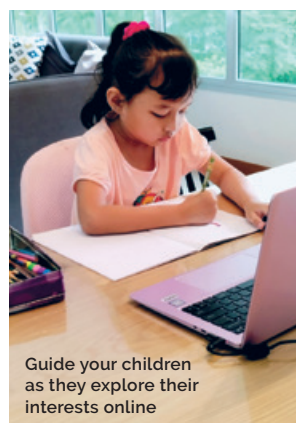
Guide your children as they explore their interests online

HOME GROWN

We showed you how to make a drink carton planter in the Apr–Jun 2022 issue. Some of you adapted it in creative ways!

GOH JIE YANG, 5

GUO RUIHANG, 4

JOHAN LIN, 4

TOGETHER WE SOAR

Parents, share how you have used community resources such as the parks, beaches, playgrounds, museums and/or other places to support your child's learning and development. Attach a photo with your anecdote and your submission may appear in the next issue of *Beanstalk*!

To share your story, go to **go.gov.sg/beanstalk-mailbag** or scan this QR code.

🎁 We have three **Grab vouchers** to give away to the best letters!

fun times

LIFE IN THE FUTURE

Take a guess how these technologies will evolve in 30 years!

TELEPHONE
Rotary dial phone → Smartphone →

COUNTING DEVICE
Abacus → Calculator →

MUSIC PLAYER
Gramophone → Portable media player →

WORD PROCESSOR
Typewriter → Laptop →

TELEVISION
Cathode ray tube TV → Flat screen TV →

→ **Hey Parents!**
This activity encourages creative and critical thinking. Encourage your child to imagine and draw what technologies could look like in future. Follow up with questions such as "Why did you draw this?" or "How would this work?". You may also ask other questions such as "What else can it do?" or "Is there a different way to do it?" to challenge and facilitate your child's critical thinking.