Foundation Course on Emerging Technologies: AI, AR, and 3D Printing

To help children develop a basic understanding of Artificial Intelligence (AI), Augmented Reality (AR) and 3D printing, we have created some Extra-Curricular classes on Saturdays. Using simple and understandable language, along with relatable everyday examples, the aim is to spark children's interest in technology and encourage them to explore how these technologies can be applied in creative and practical ways.

Artificial Intelligence (AI)	AI will be introduced as intelligent computers that can learn and assist us, such as voice assistants. By engaging children in games where they command toy robots to perform simple tasks, we will demonstrate how AI understands and follows commands. We will also showcase AI applications in daily life, like recommending cartoons or aiding in self-learning.
Augmented Reality (AR)	Children will be introduced to AR as a technology that adds digital elements to the real world through devices like tablets or smartphones. We will use AR applications to bring storybook characters to life or display virtual animals in the classroom.
3D Printing	We will explain 3D printing as a process of creating physical objects from digital designs in layers. The operation of a 3D printer and some simple printed products, such as toys or geometric shapes, will be demonstrated. Children will also have the opportunity to design their own simple 3D models using digital drawing tools, with some models being selected for printing.

These classes will be split into 3 different levels:

1. Beginner Level – Preschool and K1
2. Intermediate Level – K2 and above
3. Advanced Level – For those who have prior knowledge in AI, AR & 3D printing

	Existing Students at OEK	**Outside students**
Cost	Free of charge	$200
No. of classes	13 classes in Term 1 (following the school calendar) *There will be no make-up classes if cancelled due to bad weather and/or absent	
Dates	13/9, 20/9, 27/9, 4/10, 11/10, 25/10, 8/11, 15/11, 22/11, 29/11, 13/12, 10/1, 17/1	
Time	9:30AM – 11:30AM	
Deadline	Wednesday, 10th September	

REPLY SLIP

Name: _____   Class: PN / K1 / K2 / K3 Other: _____

☐   I am an <u>existing student</u> at OEK and I would like to join

☐   I am an <u>outside student</u> who would like to join (Cash / Cheque number _____)

I understand that this fee is non-refundable nor transferable.

Contact No.: _____

☐   Paid shuttle bus service to and from Mei Foo MTR station (availability depending on enrolment)

Parent's Signature: _____   Date: _____

Course Title: Foundation Course on Emerging Technologies: AI, AR, and 3D Printing

Course Objectives and Content:

To help preschool children develop a basic understanding of artificial intelligence (AI), augmented reality (AR) and 3D printing. Using simple and understandable language, along with relatable everyday examples, the aim is to spark children's interest in technology and encourage them to explore how these technologies can be applied in creative and practical ways.
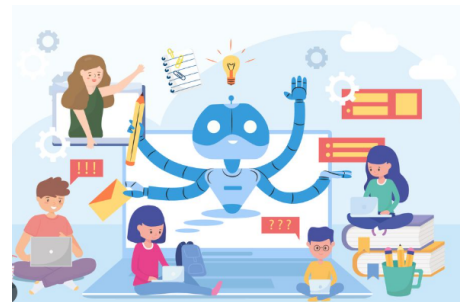
- Augmented Reality (AR):

Children will be introduced to AR as a technology that adds digital elements to the real world through devices like tablets or smartphones. We will use AR applications to bring storybook characters to life or display virtual animals in the classroom.

- Artificial Intelligence (AI):

AI will be introduced as intelligent computers that can learn and assist us, such as voice assistants. By engaging children in games where they command toy robots to perform simple tasks, we will demonstrate how AI understands and follows commands. We will also showcase AI applications in daily life, like recommending cartoons or aiding in self-learning.

- 3D Printing:

We will explain 3D printing as a process of creating physical objects from digital designs in layers. The operation of a 3D printer and some simple printed products, such as toys or geometric shapes, will be demonstrated. Children will also have the opportunity to design their own simple 3D models using digital drawing tools, with some models being selected for printing.

Teaching Methods:

Hands-on Learning: Provide ample opportunities for children to interact with technology through games, applications, and simple devices.

Storytelling: Incorporate stories featuring these technologies as main characters to make concepts more relatable and memorable for young children. After class, have children complete worksheets to reinforce learning.

Beginner Level：

AI: Get to know AI as smart computer friends that can learn and help us, like voice assistants.

AR: Learn that AR blends virtual elements with the real world, and explore this magical tech with devices.

3D Printing: Grasp the basic concept of 3D printing as turning digital designs into real objects, and observe the printing process.

Intermediate Level：

AI: Understand that AI acts like a smart buddy that can follow voice commands to do tasks.

AR: Use AR devices to showcase virtual characters and settings, and engage in simple creative activities.

3D Printing: Get hands-on with simple 3D printing tasks to spark creativity.

Advanced Level：

AI: Recognize how AI can support learning and decision-making, and utilize AI tools to discover new knowledge.

AR: Operate AR devices skillfully to create virtual works and expand imaginative horizons.

3D Printing: Participate in basic 3D printing activities to fuel creative thinking.