Collaborative Research and Development ("Seed") Project 2022/23

NT0822

Developing Students' Creativity, Collaboration and Problem Solving Skills through Creating the Makerspace in the Secondary English Language Classroom

Native-speaking English Teacher Section, Education Bureau

1. What is a Maker and what is Makerspace?

2. What is our Makerspace project?

3. What does Makerspace look like in our project schools?

1. **What is a Maker and what is Makerspace?**

2. What is our Makerspace project?

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A Maker is Someone
who Engages in **the Act of Making
with purpose.**

Makerspace in education

"The world doesn't need more graduates with good grades. What the world needs is voracious, self-directed learners with the creative capacity to see the problems of the world as puzzles, and the tenacity to work on them, even in the face of adversity."

Gever TULLEY, founder of Brightworks School, a San Francisco

Makerspace is...

Human-centred	**Inquiry-based**	**Innovation-friendly**	**Trans-disciplinary**
Creative	**Empathetic insights**	**Radical ideas**	**Tangible outcomes**
Courageous	**Collaborative**	**Meaningful changes**	**Solution-oriented**

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Project Focuses

Agency

Choice

Intention

Action

Design Thinking

EMPATHIZE — IDEATE — TEST — DEFINE — PROTOTYPE

Collaboration

COLLABORATION

4 Thinking Routines

Parts Purposes Complexities
Parts People Interaction
Empathy: Think Feel Care
EMPATHY
Tinkering: Imagine if...

MAKERSPACE

ENGLISH

Project Objectives

Developing teachers' capacity to:

- explore **the integration of maker skills** in English Language KLA;

- cultivate the **makerspace spirit / maker mindset;**

- create **English language learning activities** supporting design thinking;

- identify effective suitable **learning and teaching strategies** that complement makerspace & empower students;
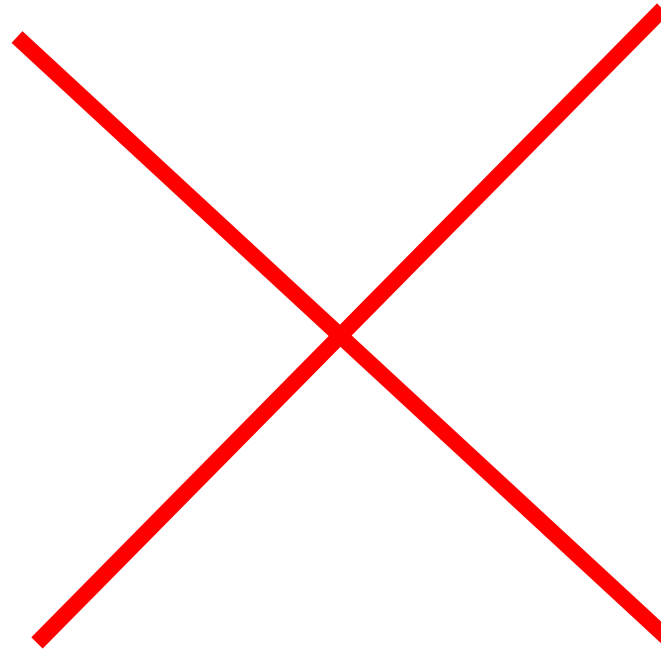
- identify **how to assess students** in the makerspace context.

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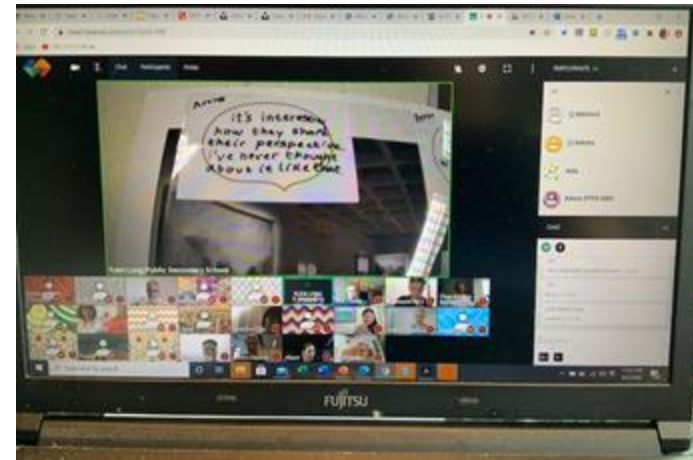# Maker tools in the English language classroom

Language

4 Thinking Routines

Handbooks from Project Schools

Developed as a student and teacher reference and
as a reminder of participation in the project

Passion Projects
S3 ELAN 2021/22

Lok Sin Tong Yu Kan Hing Secondary
S.1 English Language

Makerspace

Name: _____ ( )
Class: _____ Group: _____

The MSS Makerspace Guide
2020/2021

Makerspace "Seed" Project
Gertrude Simon Lutheran College

Handbook 2020/21

Professional Development

Makerspace in Action (1)
STFA Seaward Woo College

Adam Wittenberg

Before:

- Language Arts & Oral Lesson
- Class reader, phonics & oral practice

Setting up:

- Adam's interest in marketing materials
- Cross-curricular collaboration with I.T.

Focus Question: How can we design marketing materials to appeal to a target audience?

How do logos work and how do they influence us?

Objectives:

- Thinking routine: Parts, Purposes & Complexities

- Multimodality

- Curiosity and creativity

Other aspects

Logos, Slogans, and Product Packaging

Our start-up companies:
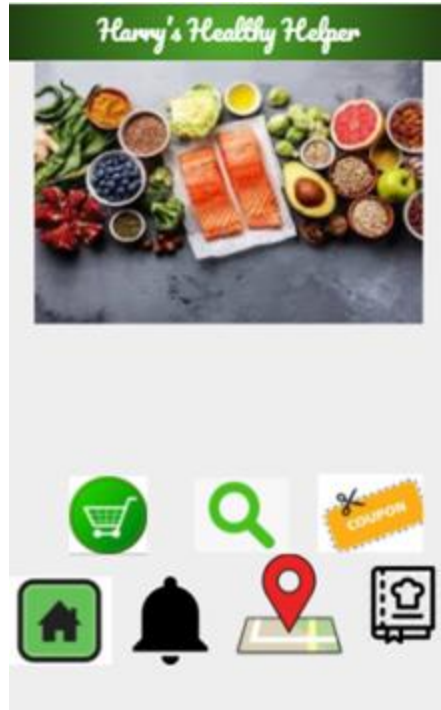
Kelly's
Kindergarten

Sam's
Sportswear

YoYo's
Ice Cream

Harry's
Health Food

The App Design Using Google Slides
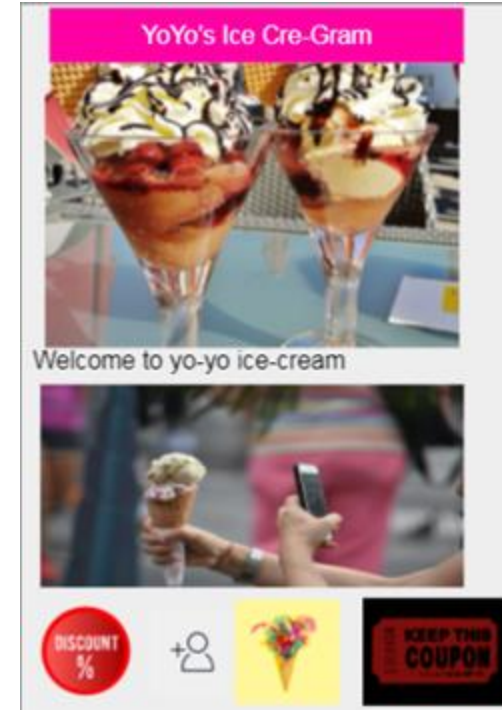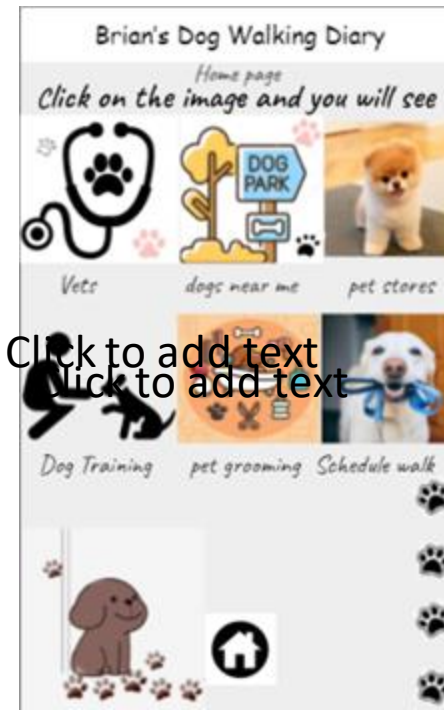
- Text, image, colour and layout
- Collaborative
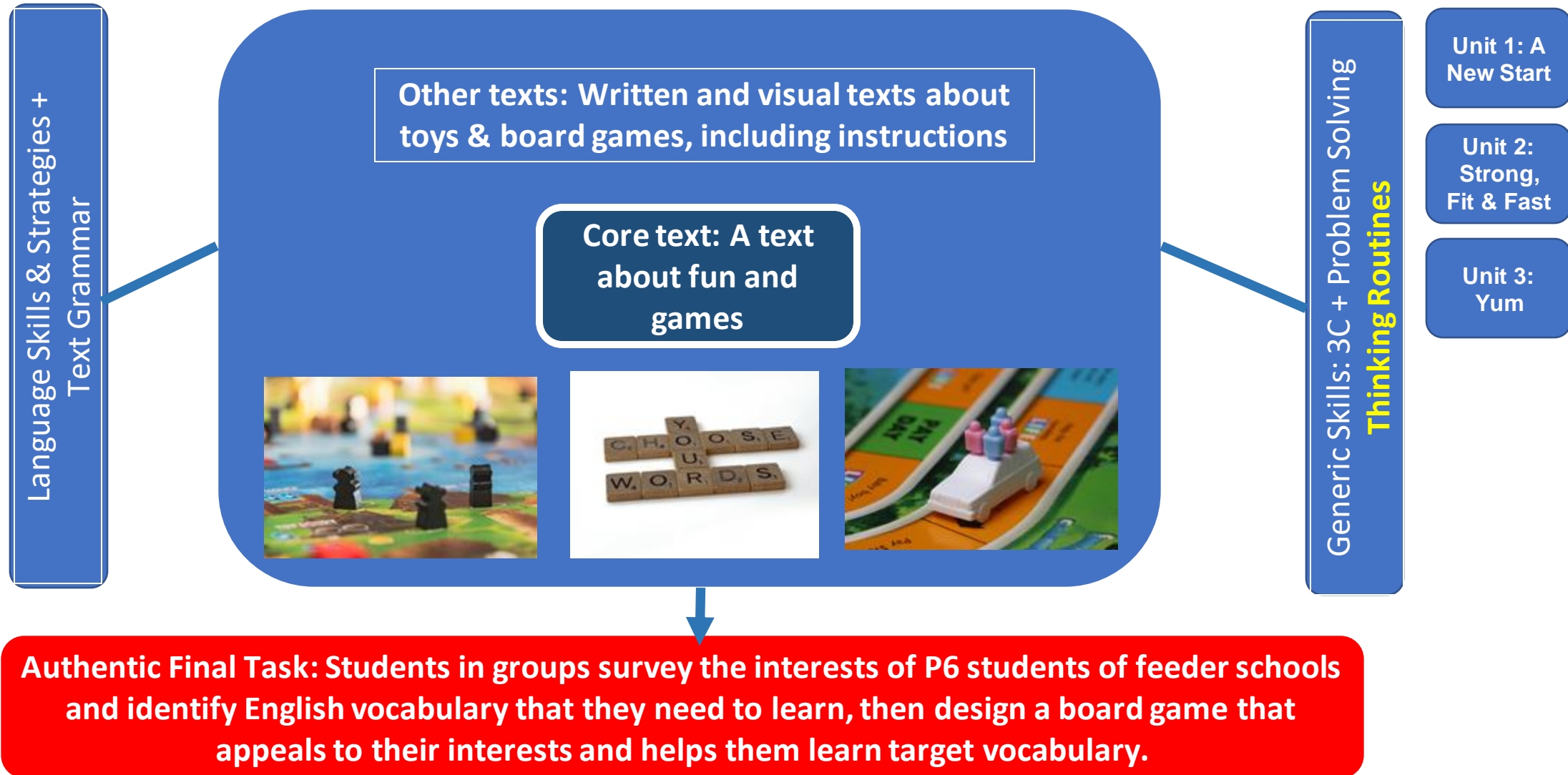
- Hyperlink function mimicked the way an app works

Makerspace in Action (2)
LST Yu Kan Hing Secondary School

Project Unit: Games

Language Skills & Strategies + Text Grammar

Generic Skills: 3C + Problem Solving **Thinking Routines**

Other texts: Written and visual texts about toys & board games, including instructions

Core text: A text about fun and games

Unit 1: A New Start

Unit 2: Strong, Fit & Fast

Unit 3: Yum

Authentic Final Task: Students in groups survey the interests of P6 students of feeder schools and identify English vocabulary that they need to learn, then design a board game that appeals to their interests and helps them learn target vocabulary.

Progressing from S1 to S2 at LST Yu Kan Hing

Progressing from S1 to S2 at LST Yu Kan Hing

Progressing from S1 to S2 at LST Yu Kan Hing

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IMAGINE IF...

FINDING OPPORTUNITY

Choose an object or system. Ask questions such as:

How could you make it **more effective?** (work better)

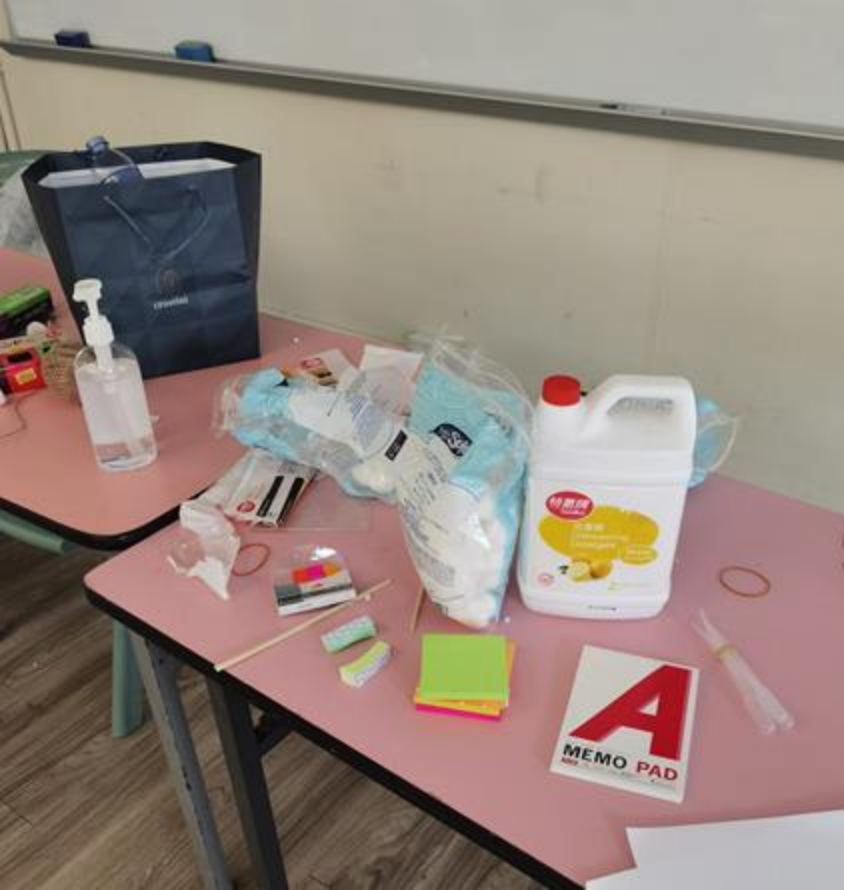How could you make it **more efficient?** (easier to use; faster to use)

How could you make it **more ethical?** (better for the community; easier to share; safer; more fair)

How could you make it **more beautiful?**

How could you make it _____?

Makerspace in Action
Marymount Secondary School

- clear direction
- environmental theme
- making elements infused
- thinking routines embedded into the design thinking process
- plentiful opportunities to use English

References

Lee, D. (2018). *Design Thinking in the Classroom: Easy-to-use Teaching Tools to Foster Creativity, Encourage Innovation and Unleash Potential in Every Student.* Ulysses Press.

Harvard Graduate School of Education. (2016). *Project Zero's Thinking Routines Toolbox.*
http://www.pz.harvard.edu/thinking-routines