

**ECDA -  
Science Centre  
Singapore  
Innovation  
Guidance Project  
Kitchen Science**

*A Warm Welcome*



# Introduction

- My First Skool – Choa Chu Kang Blk 212

Ms Amanda Lim - Acting Senior Teacher

Ms Nur Shaheila – K2 Teacher



- PCF Sparkletots Preschool @ Marsiling Blk 302 (CC)

Ms Nur Fatin – Senior Teacher

Ms Siti Nazrina – N2 Teacher



- Kinderland Preschool @ Woodlands Mart

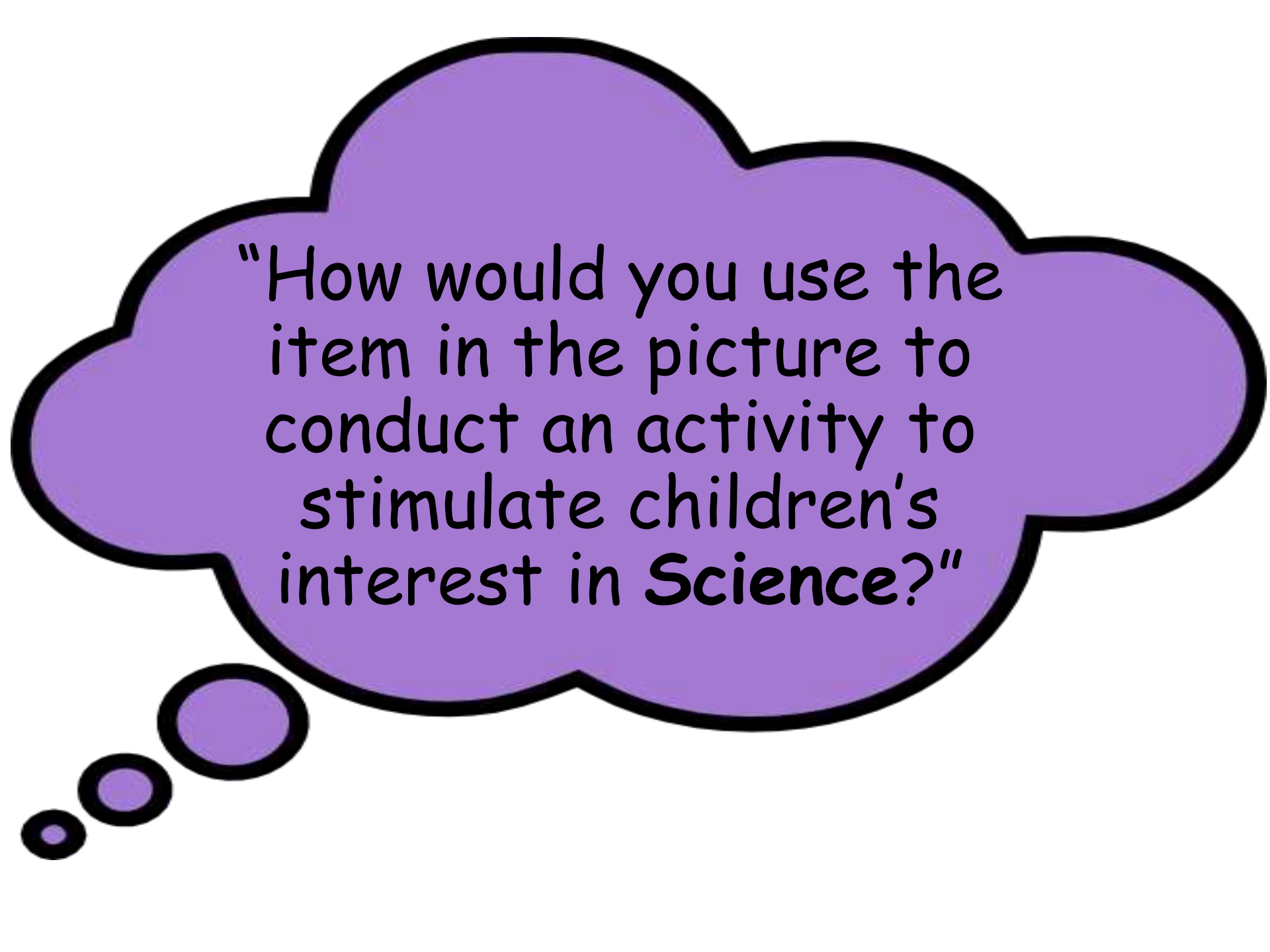
Ms Rathi Devi – Head Teacher

Ms Grace Lowella – English Language Teacher



# Warm-Up Activity





"How would you use the item in the picture to conduct an activity to stimulate children's interest in **Science**?"



# Kitchen Science

"How can we stimulate scientific inquiry skills in preschoolers through kitchen science activities?"



# What is Kitchen Science?

Kitchen Science involves the learning of scientific concepts of everyday materials that can be found in the kitchen, through safe and purposeful exploration and experimentation.

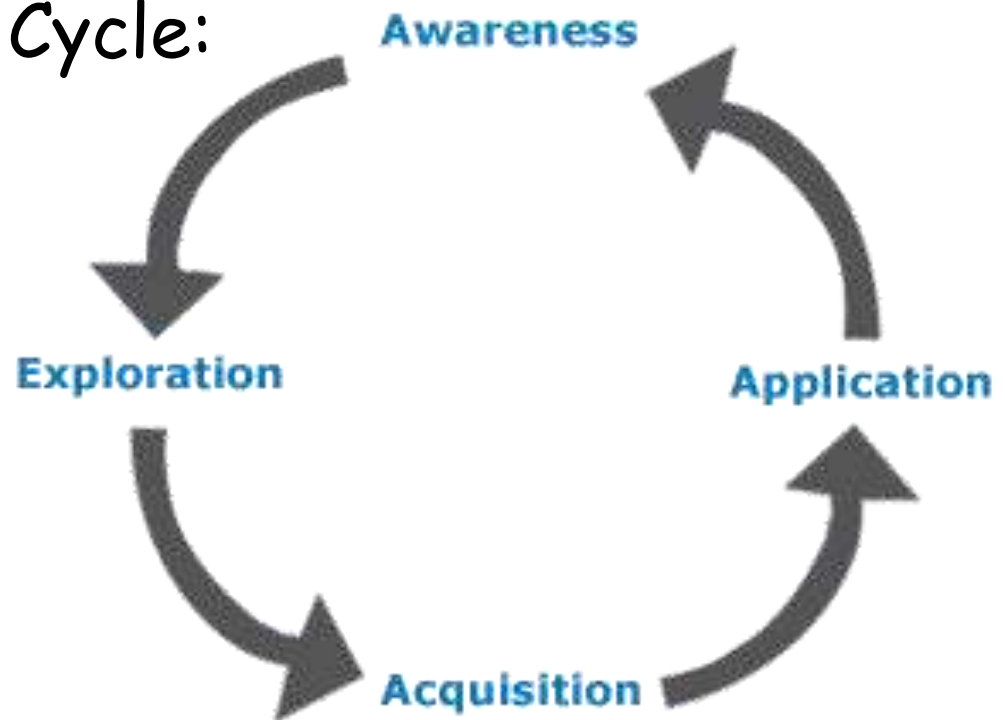
Objectives:

- To capture and develop pre-schoolers' imagination, curiosity and creativity through scientific inquiry
- To enable pre-schoolers to understand that science is all around us, through **safe** and **purposeful** exploration and experimentation of materials found in the kitchen
- To equip pre-school educators with knowledge and skills to be able to design child-initiated scientific inquiry lessons related to kitchen science through fun and unintimidating ways
- To set up authentic science discovery corners/ environments related to kitchen science that would spark the curiosity of the pre-schoolers



# Implementation Process

- Selection of topic based on centre's curriculum and the children's interest
- Planning of lessons and activities through the Children's Learning Cycle:



# Learning Cycle

## Awareness

- Learning journey to Science Centre Singapore
- Setting up of Science Discovery Centre





# Learning Cycle

## Exploration

- Carrying out scientific experiments according to the lesson plans
- Self-discovery and independent learning at the Discovery Centres

Separating solids from liquids



Self-discovery

Rainbow Yarns



# Learning Cycle

## Acquisition

- Engaging in discussions
- Peer Learning
- Reflection
- Equipping children with observation skills



# Learning Cycle

## Application

- Engaging families and Community



Parents participated in volcano workshop  
- Kinderland Woodlands Mart



Intergeneration Event: Reaching out to the elderly  
- My First Skool Choa Chu Kang



Baking with parent volunteers  
- PCF Sparkletots Marsiling 302



# Let's Explore!

Different shades of blue



Creating Colours



Dancing Colours

# Discovery Learning Centres & Classroom Environment

- Children are encouraged to extend their learning through the planned activities in the learning centres
- Task cards are placed at the discovery learning centre to encourage meaningful play, curiosity, and independent learning.



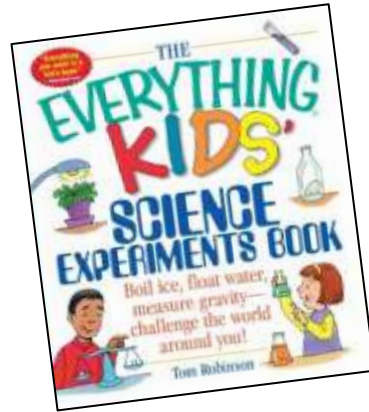
# Tips in setting up the learning centre.

- Identify a suitable area in the classroom that has a window nearby (if possible).



# Tips in setting up the learning centre.

- Gather some science related books.
- Picture books will help children visualize concepts.



# Tips in setting up the learning centre.

- Provide materials that children can touch and manipulate.



Children having hands on experience on making the dough



Children having hands on experience on extracting the colours from the plants.

# Tips in setting up the learning centre.

- Provide age-appropriate activities that the children can investigate on their own.



Children conducting simple experiment to test out ideas and prediction.



Children carrying out simple investigation using a wide variety of tools and equipment.





# Tips in setting up the learning centre.

- Record sheets may be provided for simple recording of their findings.



Children carrying out their experiment and comparing their results to their task card.



Children recording their finding through drawing and writing.





# Involving Parents

Kinderland Preschool, Woodlands Mart

- SG50 Carnival - Start Small Dream Big Project

The K1 classes involved in Kitchen Science conducted a parental Workshop on "Volcanos" using items found in the kitchen and set up a sales booth, selling home-made ice-cream using simple chemistry concepts, on Young Entrepreneur Day.

- Proceeds from the sale of the home-made ice-cream and tickets to the parental workshops were donated to the ST pocket Money Fund for charity to benefit children from low-income families to support them through school.

# Ice-Cream Making Workshop with families (Kinderland Woodlands Mart)



Children and families working together to make ice-cream. Through this activity, family-child bonding is enhanced.



# Volcano Workshop with families (Kinderland Woodlands Mart)



Children demonstrating what they have learnt through the Kitchen Science project.

# Intergeneration Event (My First Skool CCK)

- Collaboration with Chua Chu Kang Zone 4 RC, My First Skool Choa Chu Kang Blk 212 and My First Skool Choa Chu Kang Blk 208

Making push-pop cakes with families



Mr. Gan Kim Yong,  
Minister for  
Health, giving an  
Opening Address



# Intergeneration Event (My First Skool CCK)

- Collaboration with Chua Chu Kang Zone 4 RC, My First Skool Choa Chu Kang Blk 212 and My First Skool Choa Chu Kang Blk 208



Reaching out to the elderly living in the neighbourhood: Children interacted with the elderly and presented home-made gifts as a way of showing appreciation





# Baking For Charity (PCF Marsiling)

## Brainstorming

- We started brainstorming on how we can play our part to help the community, making use of the learning from kitchen science project.
- Baking is fun and involves interesting kitchen chemistry concepts!



## Visiting a Bakery

- We then headed down to the bakery to have more ideas on what we can bake. We decided to make chocolate and vanilla muffins!



# Baking For Charity (PCF Marsiling)

## Selling Idea to Parents

- We shared our idea with the parents to get their support and involvements



## Baking & Packing

- We prepared and packed for over 200 hundred muffin orders for charity sales.

# Professional Development of Preschool Educators

- Enhanced teachers' competency on inquiry-based approach
- Increased teachers' confidence and interest level in teaching kitchen chemistry in the preschool classroom
- Improved teachers' content knowledge of age-appropriate science concepts
- Promote professional sharing among colleagues and early childhood educators from other centres.

*How will you grow?*



# Children's voices

- “I like baking the coloured cakes because I like to mash the purple sweet potatoes. I like Kitchen Science lessons because it is fun!”
- “My favourite lesson is placing flowers in coloured water. It is exciting to see flowers change colours!”

# Review:

# Kitchen Science

"How can we stimulate scientific inquiry skills in preschoolers through kitchen science activities?"





**QUESTIONS**  
**And**  
**Answers**

Thank You!

