

# The Electric Corner

ECDA Innovation Guidance Project  
in collaboration with  
Science Centre Singapore

“Creating Sparks and Buzz”



# Presenters :

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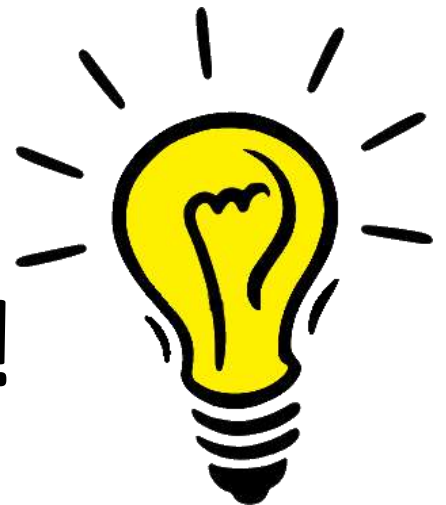
## **Michelle Wong**

PCF SPARKLETOTS PRESCHOOL  
@ Fengshan Blk 76 (CC)

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PCF SPARKLETOTS PRESCHOOL  
@ BISHAN NORTH BLK 257 (CC)

# A Warm Welcome!



# Your Challenge

## Creating Simple Electrical Circuit



Battery Holder



Bulb with bulb holder



Connecting wires



Battery

- The aim of the activity is to create a simple circuit to light up the bulb using four different components
- There are missing components in every kit per group
- Only one person from each group is allowed to move to other tables to find the missing components
- You are given 10 minutes to complete the task

# Share your thoughts :



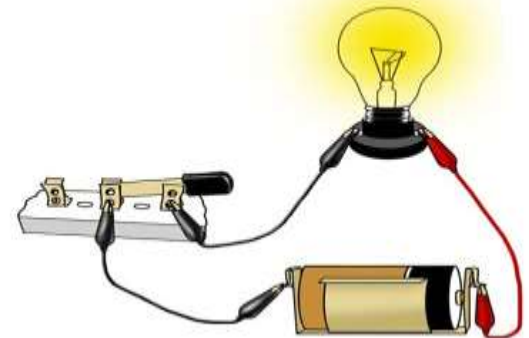
How was your experience working on the task?



What were the challenges faced?



How did you overcome the challenges?

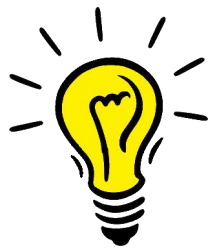




# Objectives of today's session

## Participants will be able to:

- ✓ understand how to engage children in the discovery of the world and to encourage curiosity
- ✓ discover the wonders of Electricity through hands-on experiences which will encourage teachers to adopt the Inquiry Based Learning Approach in their classroom
- ✓ Be inspired to plan for an authentic learning environment and experiential open ended-activities that instill a sense of wonder in children



# The Electric Corner (TEC)

## Introduction

- ✓ An Innovation Guidance project in which children are taught through an Inquiry Based Learning Approach to discover the wonders of Electricity through a variety of hands-on experiences
- ✓ Children were encouraged to predict, analyze and use their critical thinking skills to search for answers and develop their own conclusions
- ✓ Teachers played the role of a facilitator where they scaffold the learning process of the children and encourage each child to think and experience something new as an individual and as a group

# Let's Experience!



# **“Test it out!”**

Use the simple electrical circuit to test any 6 items that you have, to discover if it is a “conductor” or an “insulator” of electricity.

Record it in the chart provided.



# Conductors and Insulators

**Conductors** allow electricity to flow through them. Conductors are materials that can carry electricity - they conduct electricity. Metal materials such as copper, iron, steel and aluminum are all good conductors of electricity.

**Insulators** do not allow electricity to flow through them. Materials such as wood, plastic, rubber and glass do not carry electricity and are called insulators – they don't conduct electricity.



# Let's make Ring Light!

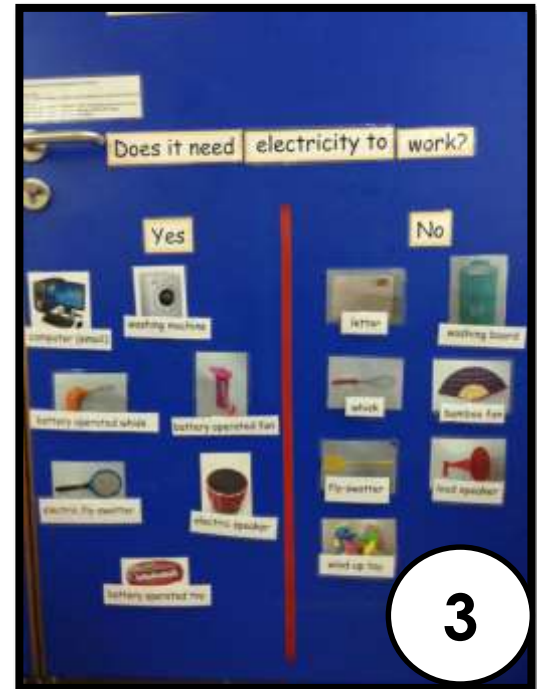


Procedures and steps to  
complete the LED ring

# Learning Environment



Learning environments are set up to provide engaging, stimulating and challenging experiences to promote critical thinking skills.





# Activity at learning corner:

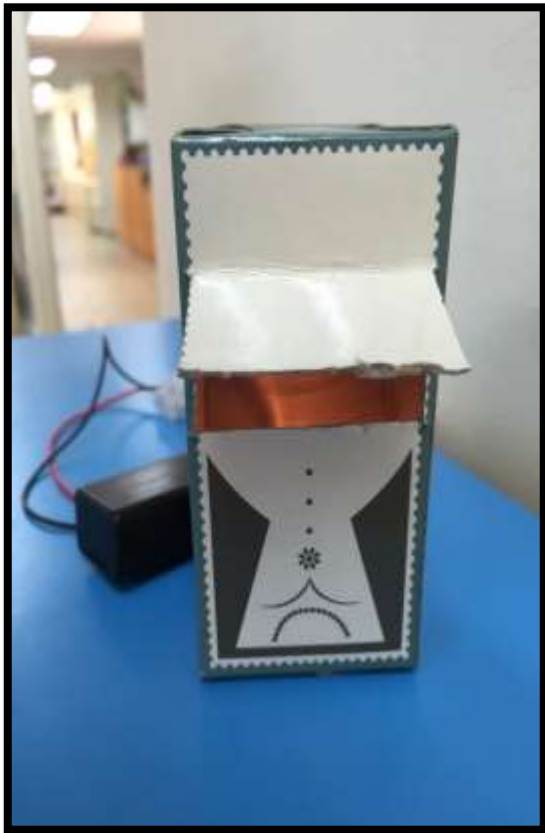


# **Activity at the learning corner:** Creating simple electrical circuits



# Family Partnership

Family participation is important as it supports children's learning and development in school.







Children made lanterns with their families in the centre using recyclable materials.





Children engaged parents and grandparents by demonstrating how to connect an electrical circuit.

Children were exploring magnets, batteries and copper wires with their families.



# Community Partnership

Collaboration with the community provides a platform for teachers to inculcate values such as compassion, respect for others, gratitude and sense of responsibility in children.







Partnership with Community Chest to raise funds for children with special needs



# Professional Development

## As a mentor:


-  Acts as an advisor in guiding the mentees by providing support and feedback
-  Shares knowledge and experience related to the project
-  Able to acquire new skills and knowledge by facilitating other mentee centres
-  Strengthens interpersonal skills and provides opportunities to reflect on my own practices




# Professional Development

## As mentees:

 Planning & evaluating lesson plans related to the theme of Electricity

 Acquiring effective questioning techniques

 Reflecting and evaluating teaching strategies

 Willingness to explore more experiential learning strategies related to the project

 Improved quality of teaching and professionalism

Q&A