Time frame:

Phase 1:
ICT: sensors for data logging+ WiFi
PHY: Radiation , evaporation

Phase 2: Prototyping
Shelter for workers in the site near Homantin station

Math prior knowledge:
Slope
Mean mode median
Surface area and volume

Week	Date	Physics	ICT	Math
14	25/1		Building data logger	
15	2/2		Building data logger	
Lunar New Year Holiday				
16	22/2	Radiation Experiment * Visit	Smart living	
17	1/3		Smart living prototyping	
18	11/3	Prototyping		
19	26/3	Building (take home)		
Easter Holiday				
20	16/4	Building (take home)		
21	24/4	Building (take home)		
22	3/5			Testing
23	14/5	Review/ modification (take home)		
24	22/5			Student Sharing

-ICT will conduct a prototyping for automation for the shelter. Good work from students will be selected to the 60+ project next year

ICT (Information and Communication Technology)

- Basic Micro:bit Coding [Micro:bit coding tutorial]
- Temperature and Humidity Sensor Interfacing [Micro:bit temperature sensor tutorial]
- Data Logging to Local Storage [Micro:bit data logging tutorial]
- Data Logging to in between Micro:bits (radio transmission) [Micro:bit data logging tutorial]
- Introduction to IoT Module [Micro:bit IoT module tutorial]
- Cloud Platform Integration with ThingSpeak [ThingSpeak with Micro:bit tutorial]
- Data Extraction and Analysis from ThingSpeak [ThingSpeak data analysis tutorial]

PHY (Physics)

- Experiment Design using Micro:bit [Physics experiment with Micro:bit]
- Investigating Radiation Absorption and Emission [3D printed box radiation experiment]
- Graph Analysis: Calculating Slope of Temperature vs. Time Graph [Slope of temperature time graph]

MATH (Mathematics)

- Project introduction to students
- Determining Slope of a Straight Line [Slope formula]
- Fitting a Best-Fit Line using Google Sheets [Linear regression in Google Sheets]
- Mathematical Modelling with Authentic Data [Math modelling with real data]
- Building of smart shelter
- Project Management: Briefing, Testing, and Documentation [Project management for science experiments]