

Math Trail

Using Mathematical Modelling to Enhance Learning

Student Desired Learning Outcome

A Christian who is an innovative Problem – Solver and Effective Communicator.

Objective

- To provide opportunities for students to display 21CC through Mathematical Modelling. (CIT 1.1c)
- To encourage collaborative learning through ICT tools. (ICS 1.3c)
- Develop in students a global awareness on the issue of depleting natural resources and the role Singapore plays. (CGC 2.1c)

Implementation

Types of Questions in Math Trail

Computational Questions

Drill and practice to achieve mastery

Analytical Questions

Achieve 21 CC through Mathematical Modelling and ICT tools

During the Trail

- Students learnt about Green Facts – measures Changi Airport has implemented to promote sustainable living. (CGC2.1c)
- Provided students with the opportunity to make assumptions based on sound reasoning and simplify problems into mathematical models. (CIT 1.1c)
- Cognitive process displayed by students is recorded on video and uploaded onto their group blogs.

After the Trail

- Students commented one another's video to promote collaborative learning through ICT tools. (ICS 1.3c)



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Sample of an Analytical Question in the Math Trail

Suggest a way to calculate the distance of the linkway connecting Terminal 3 and Terminal 2 without using any measurement tools. Record a video of your response and upload it onto your group's blog.

Collaborative learning through ICT tools



Out-of-the-box thinking



Mathematical Modelling



Achieving CIT 1.1c and ICS 1.3c

