

**C31-C34**  
**STEM Hands-on Experiments**

<b>Workshop title:</b>	IQ challenges
<b>Workshop owner:</b> (Name of School/ Institution/University/Or ganization)	Universiti Tunku Abdul Rahman, FACULTY OF SCIENCE
<b>Description of workshop:</b> (objective, content, etc)	<ol style="list-style-type: none"><li>1. IQ car challenges Participants need to setup the traffic grid and solve the challenges using their ability and patience. The game has beginner, intermediate, advance and expert levels. Through this game, the participant will learn to play this game from a trial-and-error technique to more strategy based method.</li><li>2. Police Road block IQ challenges Participant need to stop the criminal from getting away in his stolen red car by blocking all escape routes with police cars. Participant will train to develop logical thinking skills and spatial reasoning abilities. The game has beginner, intermediate, advance and expert levels.</li><li>3. Red Storm Slide Block puzzle Participants need to move the game pieces around the maneuver the red game piece to the exit. This helps to develop logical reasoning, visual perception and improve cognitive thinking. The game has beginner, intermediate, advance and expert levels.</li><li>4. Magic Pyramid Puzzle Train the participant on sensitivity to colour, maths, imagination and problem solving skills.</li><li>5. Airport Traffic control puzzle game Train the participant to develop logical thinking skills, visual and spatial perception strategic planning skills.</li></ol>

<b>Age group:</b>	Above 6 years old
<b>Number of sessions &amp; Duration per session:</b>	9.00am-6.00pm

### **STEM Hands-on Experiments**

<b>Activity/Experiment title:</b>	Fun with 4 Colors Theorem
<b>Activity owner:</b> (Name of School/ Institution/University/ Organization)	Universiti Tunku Abdul Rahman
<b>Description of activity/experiment:</b> (objective, content, etc)	Learn how to color a territory map only using four colors such that all the adjacent countries must be in different colors. There are three different levels (easy, intermediate and hard).
<b>Time frame:</b>	9.00am-6.00pm

### **(B) STEM Hands-on Experiments**

<b>Activity/Experiment title:</b>	Home-made low-power telescope.
<b>Activity owner:</b> (Name of School/ Institution/University/ Organization)	Universiti Tunku Abdul Rahman
<b>Description of activity/experiment:</b> (objective, content, etc)	Demonstrate the optical theory behind telescope through a coarse-grained setup using lenses, retort-stands and other common apparatus.
<b>Time frame:</b>	9.00am-5.00pm

**(B) STEM Hands-on Experiments**

<b>Activity/Experiment title:</b>	Sudoku Challenge
<b>Activity owner:</b> (Name of School/ Institution/University/Organization)	Universiti Tunku Abdul Rahman,
<b>Description of activity/experiment:</b> (objective, content, etc)	Participants will solve the Sudoku problem three different levels (easy, intermediate and hard).
<b>Time frame:</b>	9.00am-6.00pm