

# Workshop Lesson Plans

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**Date 1.**  
**Date: Jan 12, 2018**  
**Time: 1-4 pm.**

- Personal Intro (5 min)
- Intro to Program
  - Aims and Objectives (5 min)
  - Dates, Progression & Overview of Topics (15 min)

- Topic 1. Education
  - Part 1. What is Education?
    - History & Education through others' eyes (30 min)
    - Education through your eyes: 3 activities (50 min total)
  - Part 2. What is Secondary Education?
    - 3 activities (40 min)
- Reflection (10 min)

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**Day 2.**  
**Date: Jan 19, 2018**  
**Time: 1-4 pm.**

- Quick Review of Session 1 (10 min)
  - What is Education?
- Concepts to be covered:
  - Science, science education, science literacy, the scientific method, curriculum, curriculum design
- Skills to be covered
  - Defining science
  - Defining/identifying elements/goals of science education
  - Identifying elements of a curriculum design
  - Designing a curriculum
- Topic 1. What is Science education? What is Science Education?
  - Intro (15 min)
  - 3 Activities (40 min)
  - Final activity: Assessing ideas (10 min – during break)
- Topic 2. What is Curriculum design?
  - Intro (15 min)
  - Curriculum design (1 hour)
- Reflection (10 min)

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**Day 3.**  
**Date: Jan 26, 2018**  
**Time: 1-4 pm.**

- Quick Review of Session 2 (10 min)
  - What is science education?
  - Why create a curriculum design?
- Concepts to be covered:
  - Lesson plan, skills, thinking skills, higher level thinking skills, critical thinking, remembering/regurgitating, understanding, applying, analyzing, evaluating, creating/synthesizing
- Topic 1. Lesson Planning: Planning for Success
  - Why plan and example (20 min)
- Topic 2. Critical Thinking
  - Intro (15 min)
  - 4 discrepant events/Demonstrations & Explanations [2 hours]
- Reflection (10 min)

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**Day 4.**  
**Date: Feb. 2, 2018**  
**Time: 1-3 pm.**

- Quick Review of Session 3 (10 min)
  - Why make lesson plans?
  - What are higher level thinking skills why impart them to students?
- Concepts to be covered:
  - thinking skills, higher level thinking skills, critical thinking, open-ended problem, observation, prediction, hypothesis, the scientific method, investigation
- Topic 1. Model Lesson I: The Burning Issue of a Candel
  - Intro (10 min)
  - The Scientific Method: Observation, hypothesis, investigation, analysis and drawing conclusion (50 min)
- Topic 2. Model Lesson II: Some Light Magic
  - A lesson on exploratory learning (30 min)
- Reflection (10 min)

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**Day 5.**  
**Date: Feb. 9, 2018**  
**Time: 1-3 pm.**

- Viber or messenger group?
- Quick Review of Session 4 (10 min)
  - What's the Scientific method?
  - What's discovery learning?
- Concepts to be covered:
  - Observation, conclusion, questioning skill, hypothesis,
- Topic 1. Model Lesson III: Air Fire Water
  - Intro (5 min)
  - Observing and questioning, and planning an investigation (30 min)
- Topic 2. Model Lesson IV: Mastermind
  - Discovery learning (65 min)
  - <http://www.webgamesonline.com/mastermind/>
- Reflection (10 min)

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**Day 6.**  
**Date: Feb. 16, 2018**  
**Time: 1-3 pm.**

- Announcement: Feb. 23 session moved to March 9.
- Viber or messenger group?
- Quick Review of Session 5 (10 min)
  - What did you learn from the first part (Air Fire Water) of the last session?
  - What did you learn about Mastermind, the board game and how it's related to Science?
- Concepts to be covered:
  - Observation, pattern, discovery learning
- Topic 1. Model Lesson IV: Mastermind
  - What it can teach us about Science, doing science and teaching science [30 min]
- Topic. 2. Model Lessons V: Tackling problems of scientific nature [40 min]
- Reflection (10 min)

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**Day 7.**  
**Date: March 9, 2018**  
**Time: 1-3 pm.**

- Viber or messenger group?
- Quick Review of Session 6 (10 min)
  - What did you learn from the exercise analyzing Mastermind for the number of possible codes?
  - What did you learn from the exercise on tackling problems of scientific nature?
- Topic 1. Assessing For Success
  - Comparative study of questions in grade 9 and 10 science test papers and questions in MYP Science test paper [40 min]
- Topic 2. Curriculum Design
  - Revisiting and preparing some plans [40 min]
- Reflection (10 min)

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