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| **Lesson Plan:** |

**Prescribed learning outcomes**

**B1** analyse the behaviour of light and other waves under various conditions, with reference to the properties of waves and using the universal wave equation

**B2** use ray diagrams to analyse situations in which light reflects from plane and curved mirrors

**Big Ideas**

1. Waves transfer energy via oscillations of particles in the medium. Matter does not transfer.
2. Decouple displacement-position vs. displacement-time graphs and use these to solve problems
3. Pictorially and physically manipulate light. This means being able to position mirrors and lenses to re-direct and focus light.
4. Differentiating virtual and real images by meaning, from calculations, and ray diagrams.
5. Explain the consequences when waves interact with each other and with objects with different penetrance

**Material and equipment needed**

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| laptop | projector | problem sets | funny video | more videos? |  |

**Assessment Plan:**

**Formative -** Inquiry questions discussed in class and worksheet handed in this class or next class

**Hook and Introduction**

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| **Time** | **Activity** | **Teaching notes** | **Assessment** |
| 10:15-10:25 min | * Funny video | * If time end of day, can show other videos * Have music on while class comes in |  |

**Development**

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| **Time** | **Activity** | **Teaching notes** | **Assessment** |
| 10:25-11:30am | * Tutorial quiz | * Student groups of 3-4, hand in individually * Graded as quiz * Phones, notes, books, teacher, peers as resource | * Tutorial quiz |

**Closure**

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| **Time** | **Activity** | **Teaching notes** | **Assessment** |
| 11:30-11:35am | * Check in with the class | Enjoy Spring Break!! Another video? |  |