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| **Lesson Plan:**  |

**BC 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

**B3** analyse situations in which light is refracted

**Big Ideas and Skills learned at end of unit**

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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| --- | --- | --- | --- | --- | --- |
| Formula sheet | Unit test | Calculators | Rulers |  |  |

**Assessment Plan:**

**Summative - Unit Test**

**Hook and Introduction**

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| --- | --- | --- | --- |
| **Time** | **Activity** | **Teaching notes** | **Assessment** |
| Before class | * Instructions on board
 | * Clear table
* Set up dividers
* Grab a formula sheet at the front of the class
* Need: ruler, pencil, eraser, calculator
* Borrow from front (calculators need ID/phone)
 |  |
| 10:15-10:20 | * Unit test instructions
 | * Hand up for questions
* Time countdown at front
* Can stay until 15min after lunch starts
* Work on something quietly if finished early (corrections?)
* Leave class quietly when lunch starts
* Marked for Mr. Henderson's Physics grade
* Unit Test passed down the column - don't flip until I say go
 |  |

**Development**

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| **Time** | **Activity** | **Teaching notes** | **Assessment** |
| 10:20-11:35 | * Unit Test
 | * If done, can work on corrections.
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**Closure**

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| --- | --- | --- | --- |
| **Time** | **Activity** | **Teaching notes** | **Assessment** |
| 11:35-11:50 | * Unit Test
 | Good luck with everything! |  |

Reflection (Mulan)

Chorus

What is that image I see

Is it real

Or virtual

Is it up side down or is it right side up

...