

<b>Unit Title</b>	<b>Waves</b>				
<b>Subject group and discipline</b>	<b>Science</b>	<b>MYP year</b>	<b>2</b>	<b>Unit duration (hrs)</b>	<b>18</b>

### Inquiry: Establishing the purpose of the unit

<b>Key concept</b>	<b>Related concept(s)</b>	<b>Global context <i>choose 1 and then drill down to exactly which aspect of these the unit will focus on</i></b>
Change	Energy	Fairness and development Human capability and development

#### Statement of inquiry

*This needs to be non-subject specific (as far as possible) and connect the key concept, related concepts and Global Contexts*

Energy can be transmitted causing change, this has led to an increase in human capability and development

#### Inquiry questions

How can a person in the UK video call somebody in Australia?

**Factual—** What is a shadow?

What are longitudinal and transverse waves?

Why does light grow faint at a distance?

How do we see and hear things?

**Conceptual—** How is a shadow formed?

How can waves allow us to see the unseen?

How can white light be turned into a rainbow?

**Debatable—** How can sound be perceived without speakers?

How does our perception through senses affect our understanding?

If we cannot see it or hear it does that mean that something doesn't exist?

#### Objectives

**Summative assessment** *This does not always have to be a GRASPS task but it does need to involve students demonstrating progress by transferring the skills and knowledge they have learnt to a real-life context. An analytical essay or practice exam questions (not quizzes) counts as real life context. Students need to construct a response using the knowledge and skills they practised in the unit.*

*Learning objectives for the unit*  
 Ai outline scientific knowledge  
 Aiii interpret information to make scientifically supported judgments.

Outline of summative assessment task(s) including assessment criteria:

Assessment 1 – plan a practical into finding the best sound proofing material– Bi and Biv

Relationship between summative assessment task(s) and statement of inquiry:

Students will apply their knowledge of waves to real-world uses of waves which have

<p>Bi outline an appropriate problem or research question to be tested by a scientific investigation</p> <p>Biv design scientific investigations.</p> <p>Cv describe improvements or extensions to the method.</p>	<p>Assessment 2 – speed of a wave practical in water - Cv</p> <p>Assessment 3 – GRASPS – all links to phone + choice of part of EM spectrum - Ai and Aiii</p>	<p>played a key role in human capability and development.</p>
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**Approaches to learning (ATL) *These can be listed or you could offer some explanation of how they will be developed***

- Thinking
- Communication
- Social
- Research
- Self management