

<b>Unit Title</b>	<b>Forces and Space</b>				
<b>Subject group and discipline</b>	<b>Science: Physics</b>	<b>MYP year</b>	<b>1</b>	<b>Unit duration (hrs)</b>	<b>16</b>

**Inquiry: Establishing the purpose of the unit**

<b>Key concept</b>	<b>Related concept(s)</b>	<b>Global context</b>
Systems	<b>Movement</b>	<b>Orientation in Time and Space</b>

<b>Statement of inquiry</b>
The theory of how objects move within systems has changed throughout history

<b>Inquiry questions</b>
<p><b>Factual— What is a force?</b>  <b>What do forces do?</b>  <b>What types of forces are there?</b>  <b>How do we categorize forces?</b>  <b>What makes up our solar system?</b></p> <p><b>Conceptual— How do forces affect object/motion?</b>  <b>How do we represent forces?</b>  <b>Describe how forces cause changes.</b>  <b>Be able to represent motion in graphs</b></p> <p><b>Debatable— What is the difference between Mass and Weight?</b>  <b>What is gravity?</b>  <b>What forces exist and affect life, but we don't notice their effect?</b></p>

Objectives	Summative assessment	
<p><i>Learning objectives for the unit</i></p> <p>Aii apply scientific knowledge and understanding to solve problems set in familiar situations and suggest solutions to problems set in unfamiliar situations</p> <p>Bi outline an appropriate problem or research question to be tested by a scientific investigation</p> <p>Civ discuss the validity of the method</p> <p>Cv describe improvements or extensions to the method.</p> <p>Diii apply scientific language effectively</p>	<p>Outline of summative assessment task(s) including assessment criteria:</p> <p>Goal: Recognize issues in a scientific practical video and describe improvements. In manner of safety, accuracy of results (averages) and validity of results (variables)</p> <p>Role: PhD Students applying to be at the head of labs are being trained for their job as Lab supervisors as they will help out as supports for students and professors.</p> <p>Audience: Assessors of the students training to determine the quality of their judgment for carrying practicals in a safe and valid manner.</p> <p>Situation: Students will watch a scientific practical video, they will need to recognize mistakes or inadequacies. They will then need to describe improvements to the practical in manners of safety, accuracy of results (averages) and validity of results (variables).</p> <p>Purpose: A list of issues recognized from the video. A short paragraph of a couple sentences at most per list item describing a scientific idea for improvement of practical completion</p> <p>Standards and criteria: describe improvements or extensions to the method.</p> <p><b>Assessment Working Scientifically:</b> Recognize an issue in flying to mars and people wanting to live on the space shp throughout the journey. Outline a research question or issue(s) that exist and could arise.</p> <p><b>Assessment Fact Recall:</b> Exam style questions asking them to draw and label forces, for resultant forces and recognizing changes in</p>	<p>Relationship between summative assessment task(s) and statement of inquiry:</p> <p>Students will apply their knowledge of how objects move within systems to solve problems in familiar and unfamiliar situations</p>
<p><b>Approaches to learning (ATL) <i>These can be listed or you could offer some explanation of how they will be developed</i></b></p>		
<p>Thinking -</p> <p>Communication</p> <p>Social - working together in small groups to produce a list of practical procedural issues and produce a description of relevant improvements</p>		

Research - independent/cooperative research into existing issues in space travel and possible future issues

Self management