

EDUCATOR LED VISIT POWERHOUSE, ULTIMO

SCIENCE AND TECHNOLOGY, PHYSICAL WORLD Stage 2

In this program school groups examine artefacts such as the F1 Rocket Engine on loan from the Smithsonian's National Air and Space Museum, USA and the Soyuz re-entry module replica. Using active inquiry techniques learners will discover and discuss how forces and different forms of energy affect space exploration.

EXHIBITION	OBJECT	THINKING ROUTINE
Space	F1 Rocket Engine	<p>See, Wonder, Connect</p> <ol style="list-style-type: none"> 1. Look closely: What do you notice? Make many observations. 2. What questions do you have? What do you wonder about? 3. How could this connect to subjects you study in school? 4. How could this connect to your personal interests or hobbies?
	Soyuz Re-entry module	<p>Explanation Game</p> <p>I notice that...</p> <p>And then following that observation with the question: Why is it that way? or Why did it happen that way?</p>

SYLLABUS LINKS

SCIENCE AND TECHNOLOGY Stage 2

OUTCOME/S		
Stage 2	ST2-8PW-ST	Describes the characteristics and effects of common forms of energy, such as light and heat.
	ST2-9PW-ST	Describes how contact and non-contact forces affect an objects motion.

CONTENT	
Stage 2: Physical World	<ul style="list-style-type: none"> • Describe the effects of heat energy, for example: melting, expanding. • Identify that both pushes and pulls can be classified as contact and non-contact forces.

INQUIRY AND FOCUS QUESTIONS	
Physical World	<p>How do light, heat and electrical energy make things happen?</p> <ul style="list-style-type: none"> • How can objects affect other objects with or without touching them? • How can we use forces and energy in a product or system?

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SCIENCE Stage 2

EDUCATOR LED EXPERIENCE

Sample Itinerary for a 10am booking

9.45am	Arrive at Powerhouse, main entrance, Harris St, Ultimo. Learners can use this time for a toilet break or to have a snack.
9.55am	Museum Visitor Service Officer (VSO) meets group and checks booking details.
10.00am	VSO leads group into the Museum to cloak school bags, toilet stop if needed, welcome and Acknowledgement of Country.
10.10am	Educator/s – groups of 15 learners + teacher/supervisor Expert museum educators engage small groups of learners (15:1) at two selected artefacts or galleries. Discussions and activities are aligned with Physical World content.
10.55am	Whole group reunited for a wrap up and farewell to Powerhouse Educators. Free exploration of galleries with teachers/supervisors until 11.50am.
11.50am	Reclaim cloaked bags, toilet stop if needed.
12 noon	Depart Museum.