Physical World Unit/Moving Things

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| **Stage** | | **Timing: 7-8 weeks/ 1 hour per week** | |
| **Knowledge and Understanding Outcomes** | | **Skills Outcomes** | |
| Objects move in different ways; objects have different shapes; objects move in different ways depending on their shape. | | Science K-10   * STe‑1VA shows interest in and enthusiasm for science and technology, responding to their curiosity, questions and perceived needs, wants and opportunities * STe‑4WS explores their immediate surroundings by questioning, observing using their senses and communicating to share their observations and ideas * STe‑5WT uses a simple design process to produce solutions with identified purposes * Ste-6NE identifies the way objects move depends on a variety of factors | |
| **Content – Key Ideas** | | **Values and Attitudes Outcomes** | |
| Students develop an understanding on how things move. They explore the push and pull forces they can use to move objects in such ways such as sliding, bouncing, and spinning. Through investigations, students observe and gather evidence about rolling objects and explore the idea of fair testing. | | * STe‑1VA shows interest in and enthusiasm for science and technology, responding to their curiosity, questions and perceived needs, wants and opportunities | |
| **Vocabulary** | | **Learning Support** | |
| Push, pull, motion, force, bouncing, spinning, rolling, power etc. | | ***Students with learning difficulties***  ***Gifted and talented students*** | |
| **Assessment** | | **Learning across the Curriculum** | |
| Students will be able to:   * Identify and describe some things that move, the ways they move and the parts that enable them to move.   Represent ideas about movement through drawing, writing and discussion. | | Aboriginal and Torres Strait Islander histories and cultures  Asia and Australia’s engagement with Asia  Sustainability  Critical and creative thinking  Ethical understanding  Information and communication technology ability  Intercultural understanding  Literacy  Numeracy  Personal and social capability  Civics and citizenship  Difference and diversity  Work and enterprise | |
| **Quality Teaching Framework** | | | |
| ***Intellectual Quality***  Deep Knowledge  Deep Understanding  Problematic Knowledge  Higher-Order Thinking  Metalanguage  Substantive Communication | ***Quality Learning Environment***  Explicit Quality Criteria  Engagement  High expectations  Social Support  Students’ self-regulation  Student direction | | ***Significance***  Background Knowledge  Cultural Knowledge  Knowledge Integration  Inclusivity  Connectedness  Narrative |

**Lesson 1 - Focus**

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| Outcome | Content | Teaching and Learning Activities | Resources | Notes and Register |
| STe‑1VA  STe‑4WS  STe‑6NE | Early Stage 1 - Working Scientifically  Students communicate by:  using a range of methods to share observations and ideas, such as drawing, informal and guided discussion, role-play, contributing to joint construction of short texts and/or using digital technologies (ACSIS012)   * working in groups to reflect on what they found interesting, liked or disliked about what they did, what was or was not expected and what they would do differently | Lesson 1:  **Movers and Shakers**   1. Introduce and play musical statues, in which students move freely to music. 2. Introduce the idea of being still, such as;   'What does it mean to be still?'  "Have you ever had to be still?"  "Where and when do you have to be still?"  3. Play musical statues as a class or in pairs. | Music/CD |  |

**Lesson 2 - Focus**

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| Outcome | Content | Teaching and Learning Activities | Resources | Notes and Register |
| STe‑1VA  STe‑4WS  STe‑6NE | Early Stage 1 - Natural Environment  The way objects move depends on a variety of factors, including their size and shape. (ACSSU005)  Students:   * observe the way a variety of familiar objects move, e.g. sliding, rolling, spinning and bouncing on the ground * identify that the way an object moves depends on its size and shape, e.g. tennis balls and blocks | Lesson 2:  **On the Hunt for things that move;**  1. Talk about how toys, animals, people and transport may move e.g. roll, slide, push, pull, fly, cogs etc.  2. What gives these objects the energy for movement?  3. Using an I-pad or digital camera explore how things move around the school/classroom such as bikes, small animals, cars, leaves or toys allow the students to discuss in small groups their findings.  4. If possible discuss as a whole class the pictures they took.  5. Ask students to write/draw in their science journals something they saw move inside the classroom, in the school grounds or outside the school grounds. | Scootle resources **Pushing and pulling** TFL-ID L700  <http://www.scootle.edu.au/ec/resolve/view/L700>  Assorted moving toys, camera/I-Pad |  |

**Lesson 3 - Focus**

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**Lesson 4 - Focus**

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**Lesson 5 - Focus**

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**Lesson 6 - Focus**

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**Lesson 7 - Focus**

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