**Benchmarks Exemplification - Supporting Paper: Sciences**

This paper has been published alongside the curriculum area video clip to give further guidance and context around the narrative on the video.

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|  | **Es and Os selected** | **Linked benchmark(s)** | **Context for learning** | **Learning intentions around selected activity** | **Success criteria around selected activity** | **Skills focus** |
| ***Planet Earth***  ***Materials*** | ***Sciences***  I can apply my know-ledge of how water changes state to help me understand the processes involved in the water cycle in nature over time.  SCN 2-05a  I have investigated different water samples from the environment and explored methods that can be used to clean and conserve water and I am aware of the properties and uses of water.  SCN 2-18a  ***Social Studies***  I can discuss the environmental impact of human activity and suggest ways in which we can live in a more environmentally-responsible way.  SOC 2-08a | ***Sciences***  Discusses the necessity of water for life, for example, for the growth of crops, for drinking and in river formation/flow.  Demonstrates understanding of the processes involved in the water cycle.  Uses knowledge of the water cycle to explain how the quantity of water on the Earth has remained approximately the same.  Investigates and discusses the methods used to purify water, for example, sedimentation, filtration, evaporation, desalination and the addition of chemicals such as chlorine.  Researches methods used to conserve water within the home, school and globally and communicates findings to others.  ***Social Studies***  Identifies at least three impacts of human activity on the environment.  Suggests at least three ways in which people can live in a more environmentally responsible way. | Water has been used as a context for learning within this bundle of experiences and outcomes. Learners have been learning about the water cycle within the *Processes of the Planet* line of development in the sciences. This learning is linked to water sampling activities where learners undertake practical investigations to find effective ways to clean and conserve water, such as sedimentation, filtration and purification.  Learning was then extended to look at the uses of water and how water can be conserved at home, in the school and globally. This supported Eco-Schools/Learning for Sustainability activity relating to United Nations Sustainable Development Goal 6: Clean water and sanitation.  Children were then given the opportunity to apply and deepen their learning by exploring the impact of humans on their environment in relation to flooding. The uses, conservation and purification of water in emergency situations, including flooding, was also a feature of this learning. | * I am learning about the processes involved in the water cycle. * I am learning about the uses of water and its importance to life on Earth. * Through practical investigations I am exploring ways to clean and conserve water in different environments. * Through the context of flooding I am learning about the impact of humans on their environment. | * I can discuss the importance of water for life and give at least three examples of how water is used. * I can explain the processes involved in the water cycle. * I can devise and carry out practical investigations to purify water. * I can interpret my findings and relate these to the wider world. * I can present my scientific findings effectively to others. * I can describe ways that water is conserved in the home, at school and globally. * I can express an informed view about the role of science in helping society and protecting the environment. * I can identify how human activity can cause flooding. * I can suggest at least three ways we can live in a more environmentally responsible way. | *Inquiry and investig-ative skills*   * Carries out practical activities in a variety of learning environ-ments. * Analyses, interprets and evaluates scientific findings. * Presents scientific findings.   *Scientific analytical thinking skills*   * Creative thinking through the engine-eering processes of design and construction.   *Skills and attributes of scientifically literate citizens*   * Impact of science on society. * Expresses informed views about scient-ific and environ-mental issues based on evidence. |