Science Environment Planning Aged Reception

Resources	How is it organised and why	Link to EYFS / Research / C of EL	Adult Role
Life Science – Child friendly herbs and plants with spray bottle – Encased insects /fossils – Metamorphosis figurines – Shells of various sizes – Sea urchin shells/starfish – Rocks – pebbles – Mortar and pestle – Dried flowers e.g. sunflowers – Oasis (floral foam) **Non-fiction books** – Books about seasonal changes, machines etc. – Books about scientific theories/experiments **Investigative/ recording tools** – Empty wooden sections tray – Twine – Paper, clipboards and pencils – Microscope – Scales – Thermometer – Torches (kinetic) – Test tubes – Mirrors – Magnifying glasses	– Specimen collection station with wooden pegs, jars, bags, markers, blank labels, oasis microscope and measuring tools (weights, rulers etc.) – The plants positioned at the entrance to the area guides children visually into the space – Having enough table space allows children the room to try out discoveries – Natural items are presented in sectioned containers according to category/ name or alphabetical order – Blank spaces between objects (specimens) on shelf (visual/written labels) – Reference library positioned in dry area of the space allowing for easy access – Tongs, tweezers, empty jars, magnifying glasses in labelled jars – Thermometer positioned close to sink with a rack of test tubes and eye	– Investigating light through using prisms, kinetic torches, light table and reflective mobiles, linked to UW – Examining items closely, linked to UW – Weighing and measuring natural objects, linked to Maths – Testing out simple machines (ramps and pulleys), linked to MD – Experimenting with colour and change linked to EAD – Investigating how materials can transform linked to UW – Collecting natural resources from outside and recording them, linked to Maths & CL – Making choices, accepting challenges and embracing serendipity, linked to PSE – Using reference books to find and discover, linked to Literacy – Labelling and recording discoveries linked to Literacy – Using tools to support experiments (i.e. mortar & pestle, eye dropper), linked to PD – Operating simple machines, linked to PD – Caring for living things (i.e. plants), linked to PSE & UW – Classifying objects according to attributes of size, species, colour and so on, linked to UW – Talking about the investigative process, linked to CL	– Be a co-constructor, a fellow learner who is passionate and enthusiastic about investigating – Ask questions that can facilitate deeper levels of inquiry… – Provide constructive feedback on children's processes – Offer direct help when asked. – Model thinking out loud to encourage children to talk about the "here and now" – Instigate provocations that require a collaborative response – Suggest strategies to help children on the journey of discovery – Use scientific language: – Observing – Predictions – Hypothesising – investigating – problem solving – Change – Same – Different **Questions** – What do you notice about ….?

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– Utensils for investigating: tongs, tweezers and so on – Empty jars – Kaleidoscopes – Note books and pencils **Physical science** – Exploring books about: wood, rubber, rock, glass, metal, paper, plastic – – Set of simple wooden machines – Manual wind up carousal – Kinetic wind up torches – Snow globes – – Bicycle pumps – Magnet squares – – Books about weather conditions: – clouds. rain, sunshine, wind, snow and lightening	droppers. Diluted bottles of food colour nearby – Prisms positioned in light filled part of the area – Machines on low access shelving with silhouettes to identify where they go		– What are you attempting to ……? – What do you think will happen? – If you change ……then …….. Encourage children to use feedback to revisit learning