



List of equipment for PALMS Kindergarten Activities

Topic	Kindy Activities	Equipment
1. Rocks, Fossils & Minerals	Handling Rocks	Per class or small group: <ul style="list-style-type: none">• Selection of different rocks for students to examine
	Pet Rocks	Per student: <ul style="list-style-type: none">• Large, smooth pebble• Craft supplies to personalise rocks e.g., markers, paints, googly eyes, plasticine
	Fossil Tales	(not an activity but a list of suggested book titles)
	Fossil Kits	Fossil kits may be borrowed in WA from Australian Earth Science Education https://ausearthed.com.au/wp-content/uploads/2021/02/Kits-for-Loan_WA.pdf
	Fake Fossils	Per student: <ul style="list-style-type: none">• Textured object such as a shell, leaf or figurine• Plasticine (enough to fit object being used) Optional: <ul style="list-style-type: none">• Plaster of Paris• Water• Container to mix in• Spoon• Safety glasses (to be worn when mixing up plaster) Alternative option: <ul style="list-style-type: none">• Air drying clay or play dough





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1. Rocks, Fossils & Minerals	Budding Palaeontologists	<p>Per class or batch of 'dinosaur eggs'. Quantities will vary depending on the size and number of 'eggs' being made.</p> <p>For Method 1 -</p> <ul style="list-style-type: none">• Roughly equal amounts of sand, coffee grounds and flour• Salt (about half the quantity of flour used)• Water (enough to dampen mixture)• Mixing bowl or container• Spoon• Objects to encase in 'eggs' such as dinosaur figurines• Tray• Hammer <p>For Method 2 -</p> <ul style="list-style-type: none">• Bicarbonate soda• Mixing bowl or container• Water (enough to dampen bicarb soda)• Spoon• Objects to encase in 'eggs' such as dinosaur figurines• Tray• Vinegar• Dropper <p>Optional - food colouring</p>



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1. Rocks, Fossils & Minerals	Making Tracks	<p>Per student or small group:</p> <ul style="list-style-type: none"> • Damp sand • Dinosaur feet shapes cut from heavy card or wood <p>Optional:</p> <ul style="list-style-type: none"> • Plaster of Paris • Water • Mixing container and spoon • Safety glasses (to be worn when mixing up plaster)
	Crystal Construction	<p>Per class:</p> <ul style="list-style-type: none"> • Saturated solution of sugar, salt, or Epsom salts* made with water (enough for at least 100mL per student) <p>Per student:</p> <ul style="list-style-type: none"> • Cup (clear is best) • Short length of rough string or wool tied onto a stick or straw • OR pipe cleaner OR pop stick OR kitchen sponge <p>*Safety note- students should NOT consume Epsom salts</p>
	Gold Rush	<p>Per class:</p> <ul style="list-style-type: none"> • Small rocks painted gold • Sand - sandpit or trays of sand • Water <p>Per student:</p> <ul style="list-style-type: none"> • Round shallow dish



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1. Rocks, Fossils & Minerals	Making Sediments & Rocks	<p><i>Part 1 - Making sediments</i></p> <p>Per student or small group:</p> <ul style="list-style-type: none"> • Friable rocks (Pieces of brick may be substituted if no rocks are available) • Newspaper or large tray • Safety glasses • Gloves <p>Optional:</p> <ul style="list-style-type: none"> • Mortar and pestle • Water • Paintbrush and paper <p><i>Part 2 - Making rocks</i></p> <p>Per student or small group:</p> <ul style="list-style-type: none"> • Paper cup • Epsom salts solution (1-part salts to 2-parts water) • Sand <p>Optional:</p> <ul style="list-style-type: none"> • Objects to embed in 'rock' or create imprint 											
	Exploration Table	<p>Range of objects for students to independently explore. Suggestions:</p> <table border="0"> <tr> <td>• Rocks</td> <td>• Rulers</td> <td>• Stationery supplies</td> </tr> <tr> <td>• Crystals</td> <td>• Tape measures</td> <td>• Water in eye droppers or spray bottles</td> </tr> <tr> <td>• Fossils</td> <td>• Balance scales</td> <td>• Unglazed tiles</td> </tr> <tr> <td>• Magnifying glasses</td> <td>• Shells</td> <td>• Volcano models</td> </tr> </table>	• Rocks	• Rulers	• Stationery supplies	• Crystals	• Tape measures	• Water in eye droppers or spray bottles	• Fossils	• Balance scales	• Unglazed tiles	• Magnifying glasses	• Shells
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2. Soil	What is Soil?	Per student or small group: <ul style="list-style-type: none">• Gloves• Garden tools or spoons to dig with Teacher demonstration (1 set of equipment): <ul style="list-style-type: none">• Soil• Glass jar or clear plastic container with lid• Water
	How Does Your Garden Grow?	Per class: <ul style="list-style-type: none">• Pots or cups to grow plants in• Seeds or seedlings (fast growing varieties are best)• Sand• Soil• Water• Access to equipment to view YouTube video
	Worm World	Range of suggested activities - see resource
	Water in Soil	Per group: <ul style="list-style-type: none">• Three empty steel food cans with sharp edges removed• Clean, dry sand (enough to fill can)• Moist soil (enough to fill can)• Three squares of paper big enough to cover top of can



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2. Soil	Exploration Table 2	<p>Range of objects for students to independently explore. Suggestions:</p> <ul style="list-style-type: none"> • Soil • Sand • Sediment • Glass jars or clear plastic containers • Magnifying glasses • Plastic tweezers • Pop sticks • Spoons • Funnels • Empty containers • Sieves or colanders • Paper, glue & sticky tape • Water • Plants in pots • Cooked spaghetti • Insect figurines
3. Water	Puddles and Rain	<p>Teacher demonstration (1 set of equipment):</p> <ul style="list-style-type: none"> • Level concrete area outdoors • Chalk • Sunny day
	Protostorming Rainwear	<p>Per class (enough for all students):</p> <ul style="list-style-type: none"> • Range of materials to make models (items from recycling bin or craft supplies) • Glue • Sticky tape
	Drinking Plants	<p>Per student or small group:</p> <ul style="list-style-type: none"> • Celery stalks with leaves on • Cup • Water • Food colouring (red or blue give best results) <p>Alternative option:</p> <ul style="list-style-type: none"> • White flowers, such as carnations



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3. Water	Do Plants Like Salty Water?	Per group: <ul style="list-style-type: none">• Fresh water• Salty water For Option 1: <ul style="list-style-type: none">• Established plants or seedlings in pots For Option 2: <ul style="list-style-type: none">• Alfalfa or other fast-growing seeds• Cotton wool• Saucer or container lid
	Who Needs Water?	Class discussion only (maybe pencils and paper)
4. Natural Processes	Day and Night	Class discussion only
	Shadow Play	Per student or pair: <ul style="list-style-type: none">• Clear, sunny outdoor area• Chalk Optional: <ul style="list-style-type: none">• Device to take photos• String or measuring tapes
	Seasonal Change	Class discussion only. Access to local Indigenous seasonal calendars would be useful <ul style="list-style-type: none">• Class weather board



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4. Natural Processes	On Shaky Ground	<p>Per class:</p> <ul style="list-style-type: none">• Large container of jelly to act as a 'shake table' OR stiff cardboard and balloons OR stiff springs sandwiched between sheets of wood <p>Per student:</p> <ul style="list-style-type: none">• Supplies to make towers such as dry spaghetti, marshmallows, straws, biscuits, blocks, Lego
	Lava-ly Activities	<p>Teacher demonstration (1 set of equipment):</p> <ul style="list-style-type: none">• Candle• Matches or lighter• Container to catch molten wax <p>*Safety note- students should NOT be allowed to touch molten wax or get close to lit candle</p> <ul style="list-style-type: none">• Optional - Samples of volcanic rocks - basalt, pumice, scoria, rhyolite, andesite• Access to equipment to view YouTube video and/or DVD/BluRay• DVD/BluRay of 'Inside Out' to view short animation 'Lava' in special features• Sand pit and water• Red and yellow streamers to construct classroom volcano



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5. Space	Blast Off!	Per student: <ul style="list-style-type: none">• Pencil and paper• Materials to construct a space rocket (items from recycling bin or craft supplies) Teacher demonstration (1 set of equipment): <ul style="list-style-type: none">• Balloon• Straw• Sticky tape• Length of string to reach across classroom
	Outta This World	Per student or small group: <ul style="list-style-type: none">• Strong magnet (neodymium magnets work well) * Safety note - strong magnets can pinch fingers <ul style="list-style-type: none">• Press-seal bag• Paper plate• Microscope or USB camera
	I'm Standing On Mars!	Per class: <ul style="list-style-type: none">• Paper, card or fabric to make flat models of planets• Scissors



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5. Space	The Astronaut's New Clothes	<p>Per class:</p> <ul style="list-style-type: none">• Long pieces of paper or card (enough to join together to be able to trace around one student to make one astronaut for the class to dress)• Pencil• Materials to make astronaut clothing such as paper plates, aluminium foil, plastic bags, plastic tubing, latex gloves• Thick, adult size gloves• Objects to pick up such as blocks, jigsaw puzzles• Plastic crate or cardboard box• Long rubber gloves• Strong tape• Scissors or craft knife <p>Optional:</p> <ul style="list-style-type: none">• Goggles, visor or face shield
	Reading List	(not an activity but a list of suggested book titles)