**Prep**

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| **Things to include** | **Term 1** | **Term 2** | **Term 3** | **Term 4** |
| **Big idea** **Topic or question****Estimated time frame****Initiating shared experience**How the investigation might proceed**Curriculum links**  | **Big Idea: Water****Properties of water****What can we do with water?****2 weeks****Free exploration with water. Water tubs, different containers, sponges, eye droppers, squeeze bottles, sieves, egg beaters, washing up liquid.**Student questions could lead to questions and investigations about capacity, dissolving, where did the water go (make a puddle on the ground, draw around it, soak it up with the sponge- where did it go?) Which container holds the most? How can we change the water? **Floating and sinking****What happens when we put objects in water?****3 weeks****Science experiments: have big tubs of water and a wide range of objects such as wood, paper, plastic, heavy things, corks. Encourage children to find out what things float and what sink.** Use the experience to develop questions/wonderings that can be tested. Eg do heavy things sink and light things float? Do all things made of plastic float? Do bottles float?Further exposure to learning that you can ask questions and experiment to find the answer. May also lead to designing and making things that float (boats)**Bubbles****How can we make different types of bubbles?** **3 weeks****Bubble blowing activity**Leading to children using senses to describe, creating wonderings about bubbles, eg how big, how fast, what shape, what mixture, and learning that you can ask questions and experiment to find the answer.**Science, Design Technologies**  | **Big Idea: Food****What do different foods look like, smell like, feel like, sound like and taste like?****2 weeks****Fruit and vegetable tasting experience, use 5 senses to describe and compare different foods (could use a company like market fresh)** Student questions could lead to exploring different types of food, food categories, and cultural foods.**How can we grow/make our own food?****4 weeks****Either visit a local vegetable garden and/or walk to the local supermarket/green grocer to buy ingredients to do some cooking.**Leading to planting own vegetable garden or designing and making own healthy recipes/café using the design process**Health and PE, Science, Economics, Design Technologies****Big Idea: Place****What’s in our Community?****4 weeks****Local community walk to discover local resources- places of interest, parks, playgrounds, people, services.**How this evolves will depend on what places of interest you can walk to- or consider public transport. Children’s questions will depend on experience but will allow you to explore geography concepts of places and mapping and civics concepts such as people in our community- roles (shopkeeper, police, ambulance, service industries, different types of jobs etc) Encourage using this experience to involve children in creating (through a construction activity) a community. What are the features of a community- what are the needs? What would we include in the community we construct?**Geography, Civics, Health** | **Big Idea: Living things** **What are the different features of animals?****3 weeks****Animals in the classroom, pet parade, or incursions eg. ‘The Zoo Comes To You’**Student questions could lead to exploration into the features of animals, classifications, similarities and differences, of animals they know or see at the zoo.**Where do animals live?****4 weeks****Zoo excursion**Leading to an introduction to the researching process at the whole class level- model how you can ask a question then use sources of information to find answers.**What do animals need to grow and survive?****3weeks****Hatching chickens (or rabbits, butterflies or frogs) and/or****Visit to the local Vet or guest speaker (Vet, animal rescue worker, animal lover)**Develop student wonderings and investigate using the research process ways find out more about animals they are interested in, how animals grow and change, or how to care for animals.**Science, Geography, Civics** | **Big Idea: Movement** **How do things move?****2 weeks****Movement exploration experience. Have a wide range of objects eg cylinders, balls, cubes, heavy objects, light objects, slinkys, their own bodies etc. In an outdoor environment with different surfaces and some slopes give students time to explore how things move in different ways.**Develop and explore student questions about how things move. Establish scientific language to describe how things move and formally introduce the scientific process**How do things move?****In the Air****4 weeks****Kite flying experience or paper plane competition**Leading to experiments using the scientific process eg. Which goes faster, further, etc?Designing and making things that fly eg. rockets, balloons, paper planes, kites.**Science, Design Technologies****Big Idea: Change over time****Toys and Games of the Past****How did our Parents and Grandparents play?****4 weeks****Grandparents day. Invite older generations of the family to come and teach children games they used to play when they were kids, or toys they used to play with.**Develop student questions about the games and toys of the past. Use research process to find out answers to our wonderings.**History** |

**Year 1**

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| **Big idea** **Topic or question**Estimated time frame**Initiating shared experience**How the investigation might proceed**Curriculum links**  | **Big Idea: Exploring Scientific phenomena and change****Light** **How can we make light?****2 weeks****Science experiments, free exploration of the concept of light using torches, light boxes, sun and shadows, glow in the dark materials, mirrors, material, cellophane, water.****Sound****How can we make sound?****2 weeks****Science experiments, free exploration of the concept of sound using musical instruments, containers, rice, stones, sand, string, elastic bands, jars with water, natural materials****Solids and liquids****How can we make things change?****4 weeks****Science experiments observing, describing and changing states of matter**Each topic is an opportunity to embed the scientific process of inquiry. Use the experience to generate questions that can be explored through further testing. Introduce the scientific process to further explore their ideas.Each topic could also lead to designing and making products using their scientific knowledge, eg musical instruments, recipes (kitchen chemistry)**Science and Design Technologies** | **Big Idea: Human Body****How does our body work?****5 weeks****Drama Tool Box- Full Body Investigators**Generate student wonderings after the experience about the body, how it works, and what it needs. Use the research process to help students find answers to their wonderings. Use resources such as information books, websites, animations, 3D models, posters and photographs, video clips and people (doctors, nurses, health professionals, sports people, and nutritionists) as ways of finding out.**How can we keep our bodies fit and healthy?****‘Let’s get physical’ day- rotating workshops involving nutrition and being active activities** **5 weeks**Use the workshops to generate questions about how to keep ourselves fit and healthy with an emphasis on nutrition and being active. Investigations may involve research or trying new things. Guest speakers such as: health professionals, people in the fitness industry or sporting coaches/players, and nutritionists as resources for finding out.**Health and PE, Science,** | **Big idea: Life in the Past****How did people live in the past?****5 weeks****Sovereign Hill, Werribee Mansion, Cooper’s Settlement, Yarrabee Old School experience (or equivalent) visit.** Leads to wonderings that allow students to explore what life was like in the past- researching using family members as sources of information, role-playing life in the past.**History****Big idea: Earth and change****Day and Night****How does the sky change?****5 weeks****Visit to the planetarium****Skylab****Night time BBQ and star gazing****Shadow and sun experiments**Student questions could lead to an investigation into day/night, weather, seasons, sun, moon and shadows or space depending on student interest. Wonderings may lead to using the research or scientific processes to find out.**Science, Geography** | **Big Idea: Living Things****Mini-beasts****5 weeks****Use the field study process and go on a mini-beast hunt in the school grounds or a local natural area. Take magnifying glasses, ipads to record, specimen jars, gloves, etc. OR book a mini-beast incursion.**Generate student wonderings after the experience and use the research process to investigate mini-beasts and habitats that students are interested in. May lead to creating a worm farm or a mini-beast habitat as a sustainable action.**Science, Geography, Civics, Design Technologies****Big Idea: Celebrations****How do people celebrate Christmas in different ways?****5 weeks****Plan, prepare and conduct a cultural celebration such as Diwali, or a Christmas celebration, for children to participate in. Or CERES run a cultural celebrations program.**Use this experience to share and compare ways in which children and their families celebrate. Invite parents, family members, other people in the community to come in and share their cultural celebrations and traditions. Students can investigate their own family celebrations and traditions and bring in stories, photos or artifacts to share and compare. Students may want to investigate how Christmas is celebrated in other places and compare this to the story of Jesus’ birth. **History, Geography** |

**Year 2**

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| **Big idea** **Topic or question**Estimated time frame**Initiating shared experience**How the investigation might proceed**Curriculum links**  | **Big idea: Food processes and systems****Farm to table****Where does our food come from?****5 weeks****Visit to a farm eg Animal Land or Bundoora Farm or Collingwood Children’s Farm**Gather and research student wonderings. Could also lead to using the design process to create and cook different recipes, or planting a vegetable/herb patch, or may diverge into other products from farms eg- wool, spinning, weaving, knitting, or timber- paper-making, woodwork. **How are food products packaged and marketed?****4 weeks****Visit to a local market or shopping centre to observe how food products are displayed, marketed and packaged. Compare natural produce to processed foods, eg fresh apples and apple roll ups.**Have students compare the nutritional value of natural and processed foods, what the information on the packaging tells you and whether you are getting value for money. Gather student wonderings and investigate. This may lead to students developing campaigns of their own or informing/persuading others.**Health and PE, Science, Economics, Design Technologies** | **Big idea: Force and movement** **How do things move?****5 weeks****‘Wheels day (Wheely Wednesday)’ children bring in things with wheels, eg bikes, scooters, roller skates, toy cars, trains, prams etc to explore. Investigate what happens when you move across different surfaces, down ramps, the components of the system that makes the object move.**Leading to experiments using the scientific process eg. Which goes faster, further, inclined planes, forces, etc. Could then lead to further exploration of how things move through the air, through water, on land. Generate further questions that can be tested through the scientific process such as does the shape and size of the kite affect how well it flies? Which materials are more effective to make boats with? **How can we make things that move?****5 weeks****Excursion to Lego design centre or design problem solving tasks at school.**Using the design process have students investigate ways of designing things that move then construct, test and improve them. Use a variety of materials including recycled.**Science, Design Technologies** | **Big idea: Culture****Who are the Aboriginal people? What’s their story?****5 weeks****If possible, visit a local site significant to indigenous people (or the Koorie Heritage Trust, Botanical Gardens, CERES) to explore the story of the local Aboriginal people. OR Invite an Indigenous person to share aspects of their culture and history through their story. E.g. Annette Sax from Yarn Strong Sista or contact your local council.**Have students generate questions about Indigenous people. Use the research process plus immersion in the Arts to find out and make connections.**Who are we? What’s our story?****5 weeks****Rotating activities related to different cultural or family traditions, stories, arts, music, dance etc or cultural incursion eg Nexus Arts, Cultural Infusion, guest performing artists OR visit to a cultural precinct such as Footscray market or Melbourne**Experiences as catalyst for students investigating their own cultural backgrounds and sharing their family stories, traditions, , artefacts etc. Or researching countries of interest and their features, stories, arts, etc. Opportunity to explore geographical concepts through locating places in a globe/map.**Geography History Civics** | **Big idea: Ecosystems and sustainability****Eco-systems****How do environments sustain life?****5 weeks****Excursion to LaTrobe Wildlife Centre or Ecolinc to explore concepts of eco-systems and sustainability, particularly in relation to water environments.**Gather student wonderings and use field study or research process to explore and find out. Make connections to the interdependence of living things within an eco-system and how people use these environments and how human actions impact on them.**How are eco-systems similar or different?****5 weeks****Visit a local waterway and re-visiting the “Field Study” Inquiry process observe and collect information about that environment/eco-system OR visit to some diverse environments such as a beach, wetland, forest etc. Experiences can also be set up in the classroom to experience diverse environments if an excursion is not possible.**This could lead to further research about environments students are interested in. Possibility of using the problem solving process to identify a sustainable action they could take, or using the design process to create a habitat or environment.**Science, Civics, Geography, Design Technologies** |