Stage three Classes: ASD/CE- S3a, S2CE, S1CE, S2	Autumn	Spring	Summer
2022-2023	Growing up and growing old Offspring, reproduction, growth, child, young/old stages (examples - chick/hen, baby/child/adult, caterpillar/butterfly), Life cycle, reproduce, sexual, sperm, fertilises, egg, live young, metamorphosis, asexual, plantlets, runners, bulbs, cuttings, characteristics, suited, adapted, environment, inherited, species, fossils	Material world Year 5 – topic 2 stretch/stretching Object, material, wood, plastic, glass, metal, water, rock, brick, paper, fabric, elastic, foil, card/cardboard, rubber, wool, clay, hard, soft, stretchy, stiff, bendy, floppy, flexible, rigid Shape, push/pushing, pull/puling, twist/twisting, squash/squashing, bend/bending,	Out of this world Year 5 – topic 1 Earth, Sun, Moon, star, (Mercury, Jupiter, Saturn, Venus, Mars, Uranus, Neptune), solar system, planets rotates, , orbit, spherical,
Sensory activities	 Look at photos of pupils themselves – to show progression from newborn baby/toddler/infant, etc. Visit to class – baby+mother+grandparent. Look at photos of parents as baby/toddler/child/teenager. 	 Compare bread and toast using all senses Use 'feely' bags to encourage using the sense of touch. Pupils describe what they can feel. Do any feel the same? Observe and compare things from the kitchen like powders (safe), liquids (safe), dough, cereals, vegetables and fruit. 	Fill a shallow container with sand or earth (or you could use flour) and smooth the surface. Hold a marble above the tray, let it go and watch it fall and make a crater in the sand. Try it again, dropping the marble from higher up, or using a different sized marble. Use a ruler to measure

- Discuss what children can do, and babies can't.
- Make collection of clothes babies/child's/adults.
- Collection of objects associated with different age groups.
- Listen and identify taped voices of different ages.
- Sequence photos of different aged people.
- Role-play taking on a different age.
- Taste and feel baby foods and relate to baby's needs.
- Make and taste homemade baby foods.

- Sort materials into those that can be squashed and those that can't.
 Discuss.
- How many times can you twist/bend something before it breaks?
- Which toys have things that bend? Twist?
- Draw a picture of plasticine and then how it would look after it had been squashed, twisted etc.
- Explore materials that will change shape when twisted, stretched etc but return to original shape when released.
- Drop plasticine and other objects onto the floor. What happens to them?
- Explore balloons that have different amounts of air in them.
- Which packaging materials can be bent, squashed etc.
- Make salt dough models. Discuss changes after they have been in the oven.
- Make Plaster of Paris
- Put ice cubes in a variety of places (in bags!) or use ice pops.
- Make jelly. How could setting be speeded up?
- Put a variety of liquids e.g. cooking oil, milk, sauce, salad cream etc in the freezer.

- the sizes of the craters you have made.
- Balloon rocket: <u>Steve Spangler</u> <u>Experiment DIY Sci Balloon</u> <u>Rocket (xplorationstation.com)</u>
- Stargazing bottle: fill plastic bottle with warm water, glitter glue, star sequins.
 Superglue the lid shut.
- Stomp rocket activity
- Junk modelling rockets
- Creating a replica of a planet.
 Use paper Mache/ shaving foam and paint to create texture
- Create shiny space suits for small world animals and dolls. Design a space suit thinking about the materials used.

		 Melt things like ice, butter, chocolate, ice cream etc. Make toast using a different setting on the toaster each time and compare to bread. What are the differences? Cook rice? Spaghetti? Chips? Compare before and after. Add vinegar to warm milk – the coagulated protein is used to make plastic. (Milk needs to be at 50°C). 	
2023-2024	Switched on Science - Year 5 topic me Circle of life Plant, seed, wind, animal, flower, grow, alive, dead Photosynthesis, pollen, insect/wind pollination, seed dispersal (wind dispersal, animal dispersal, water dispersal, Bulb, Pollination, Fertilisation, Sexual reproduction, Asexual reproduction	Super scientists Year 5 – topic 6 Ink, print, pens, colours, police, scientist, Forensic, scientifc evidence, scientifc investigation Fingerprint, Chromatography, Microscope, Classify, Fair test, DNA, Evidence, Timeline, Pattern, Survey,	Let's get moving Year 5- topic 4 Force, push, pull, twist, magnet, strength, weight, spring, lever, gear, pulley, bar magnet, Newton, Isac Newton, ring magnet, button magnet, horseshoe magnet, contact force, Galileo, non-contact force, magnetic force, friction, Air resistance, water resistance, force meter, reliable,
Sensory activities	Explore living domestic animals or real animal skin/fur – touch, look, smell, listen e.g. cat, dog, rabbit etc.	Finger print analysis. Using ink press a finger onto the deflated balloon and let it dry (do not smudge it) Blow up	DIY Sci - Soda Can Swinging Experiments With Steve Spangler (xplorationstation.com) Kinetic energy sensory swing

- Compare real living animals with stuffed furry toys for alive/not alive, warmth, respiration, wet/dry, sounds/no sounds, movement/no movement, food/no food.
- Attach pipe cleaners to a stick or a child's finger and dip into flour. Seed-bearing plants require pollination, often helped along by insects like bees and butterflies.

- the balloon to enlarge the finger print.
- Match footprints to the correct animal.
- Find your handprint investigation
- Using flour and a brush cover black card with flour. Children to dust the flour away to reveal an imprint.
- Grow a rainbow- Using principles of chromatography.
- Skittles chromatography
- Chromatography tie-dye t-shirts

- Experience a variety of pushes and pulls with every-day objects
 - very obvious e.g. pushing and pulling wheeled toys, opening and closing drawers and doors, rolling and cutting out pastry or dough, making bread, magnets – e.g. Brio train set, fridge magnets
 - less obvious e.g. blowing bubbles, balloons, writing on board, putting on clothes.
- Play skittles either with balls or blowing over with air e.g. from a hairdryer
- Play games to demonstrate understanding of push and pull e.g.

 turn up cards with words and/or symbols "push" and "pull" on and do action specified; roll dice with word/symbol and do appropriate action (could include other words like twist, bend, squeeze, stretch); board game with "push" and "pull" as stepping stones.