






Outlined below is the 'sticky' knowledge for Year 3. We expect children to know and remember the following information, which is derived from our broader curriculum expectations. These concepts are revisited in our regular focused retrieval sessions – as well as through lessons, where prior knowledge is identified, built upon and extended.


Science	Plants	Light	Rocks	Forces	Animals including Humans
	<ul style="list-style-type: none"> The main parts of a flower are the petals, leaves, roots, stem and roots Water is transported around the plant through tubes called xylem vessels, moving from the roots to the leaves. Pollination is the process of transferring pollen from the male part of a flower (stamen) to the female part (carpel). Seeds disperse in different ways, including by wind, water, animals, or by exploding from the plant. 	<ul style="list-style-type: none"> We see objects when light reflects off them and enters our eyes. Materials such as mirrors, shiny metals, and light-coloured surfaces reflect light well. Some materials, called transparent materials, let light pass through them, such as glass and clear plastic. A shadow is formed when an object blocks light from reaching a surface. The size of a shadow can change depending on how close the object is to the light source or the surface. Strong light can be dangerous because it can damage our eyes, so we should never look directly at very bright light sources like the sun 	<ul style="list-style-type: none"> There are different types of rocks, including igneous, sedimentary, and metamorphic rocks. Igneous rocks are formed when molten rock cools and solidifies, sedimentary rocks are formed from layers of sediment that are pressed together over time, and metamorphic rocks are formed when existing rocks are changed by heat and pressure. Fossils are formed when plants or animals die and are buried by sediment, which hardens over time and preserves their remains or shapes. Soil is made up of small pieces of rock, organic matter (such as dead plants and animals), air, and water. 	<ul style="list-style-type: none"> A force is a push or a pull that can make an object move, stop, or change direction. Different surfaces affect how fast materials move because of friction; rough surfaces slow objects down more than smooth surfaces. Gravity is a force that pulls objects towards the Earth. Some materials are magnetic, such as iron, steel, nickel, and cobalt. Magnetic poles attract when opposite poles (north and south) come together and repel when the same poles (north and north or south and south) are near each other. Magnets can be used in everyday objects such as fridge doors, cupboard catches, and some toys to help things stick together or stay closed 	<ul style="list-style-type: none"> Animals need food, water, air, shelter, and exercise to stay healthy. A balanced diet is one that includes the right amounts of different types of food to keep the body healthy. Carbohydrates provide the body with energy. We have a skeleton to support our bodies, protect vital organs, and help us to move.


History	Stone Age	Iron Age to Bronze Age	Ancient Greece
	<ul style="list-style-type: none"> The Stone Age is called this because people used tools and weapons made from stone. The Stone Age ended as people began to use metals like bronze to make tools and weapons, leading to the Bronze Age. The three periods of the Stone Age are the Palaeolithic, Mesolithic, and Neolithic periods. Mesolithic people lived in temporary shelters such as huts, often near rivers and forests where they could hunt and gather food. New Stone Age (Neolithic) people began to farm, grow crops, keep animals, and live in more permanent settlements. 	<ul style="list-style-type: none"> The Bronze Age is named after the metal bronze, which was used to make tools, weapons, and jewellery. Travellers from mainland Europe brought new skills, including metalworking, farming methods, and new ways of living, which changed life in Britain. Bronze Age burials often included bodies buried with items such as pottery, tools, and jewellery, sometimes under burial mounds called barrows. In the Iron Age, people began using iron to make stronger tools and weapons, and farming and daily life continued to develop. Iron Age people lived in tribes and often built hillforts on hilltops for protection and as places to live 	<ul style="list-style-type: none"> The ancient Greeks settled in Greece because it had a warm climate, access to the sea for travel and trade, and land suitable for farming and building communities. The first Olympic Games took place in 776 BCE in Olympia, were held every four years, and originally included only one race, a footrace. Sparta was famous for its powerful army and the way its people were trained to be strong soldiers from a young age. Alexander the Great was a powerful king and military leader who created a large empire by conquering many lands across Europe and Asia. The Ancient Greek period began around 800 BCE and lasted for several hundred years


Geography	Climate and Water	Extreme Earth	Coasts
	<ul style="list-style-type: none"> A biome is a large area of the Earth that has a particular climate and types of plants and animals. Climate and biomes are closely linked because the climate of a place determines the types of plants and animals that can live there. There are different types of climates, including tropical, desert, temperate, polar, and Mediterranean climates. Each climate has its own main characteristics, such as temperature, rainfall, and the types of plants and animals that live there 	<ul style="list-style-type: none"> Earthquakes are caused by movements in the Earth's crust, when tectonic plates suddenly shift or collide. People choose to live in earthquake zones for reasons such as jobs, family, fertile land, and access to resources, even though there is a risk. The most active earthquake and volcanic areas are found along tectonic plate boundaries, especially around the Pacific Ring of Fire. One major earthquake disaster was the 2010 Haiti earthquake, which caused widespread destruction, many deaths, and left many people homeless. 	<ul style="list-style-type: none"> Living next to a coast has advantages such as beautiful views and access to beaches, but disadvantages include the risk of flooding and coastal erosion. Coasts change over time due to natural processes such as erosion, weathering, and deposition, often caused by waves, wind, and tides. Physical coastal features are natural features such as cliffs, beaches, and caves, while human coastal features are man-made structures such as piers, harbours, and sea walls. An example of a coastal environment in the UK is Jurassic Coast, and an example from another continent is the Great Barrier Reef.


Art and Design (knowledge of art and artists)	Drawing	Painting	Sculpture
	<ul style="list-style-type: none"> Perspective is a way of drawing that shows objects as they appear in real life, often making things look smaller as they get further away. A horizon line is used in art to show where the sky meets the land or sea and to help create perspective. The grid method helps in art by breaking an image into smaller squares, making it easier to copy or draw accurately. Shading is used to make drawings look more realistic by showing light, shadow, and depth. Different techniques can be used in art, such as shading, blending, cross-hatching, and using different types of lines and marks. 	<ul style="list-style-type: none"> A tertiary colour is made by mixing a primary colour with a secondary colour. There are six tertiary colours. Light and dark tones are created by adding white to make a colour lighter and black to make it darker. A colour wash is created using smooth, even brush strokes, often with watered-down paint. A cross-sectional painting shows the inside of something, as if it has been cut open to reveal what is inside. 	<ul style="list-style-type: none"> Slip is a mixture of clay and water that is used like glue to join pieces of clay together. Pieces of clay can be joined by scoring (scratching) the surfaces and using slip to stick them together. The appearance of clay can be changed by shaping, smoothing, carving, or adding texture. Clay can be decorated by carving patterns, adding shapes, painting, or glazing after it has dried. Materials such as sand, small objects, or natural items can be added to clay to create different textures and effects.

PSHE 	Relationships <ul style="list-style-type: none"> A personal goal is something you want to achieve. A challenge is something that is hard and needs effort. Rules keep us safe, fair, and organised. They help us make good choices. Our actions can affect how other people feel. Other people's views are important and should be respected. School values are Fairness, Respect, Ambition, Teamwork, Resilience, and Bravery. 	Celebrating Differences <ul style="list-style-type: none"> Families give love, care, and support and help us feel safe. Families can be different in size and the people in them. Family members sometimes argue or disagree. Conflict is when people argue or disagree. Being a witness to bullying means seeing someone being treated unkindly. Words can hurt if they are unkind or meant to upset someone. Hurtful words can make people upset and cause problems. 	Dreams and Goals <ul style="list-style-type: none"> Some people succeed by working hard and not giving up. Everyone has dreams and goals for the future. We can overcome learning challenges by practising and asking for help. We are responsible for trying our best in our own learning. Everyone has strengths as a learner. An obstacle is something that makes it harder to reach a goal. We can overcome obstacles by staying positive and trying different ways. We can improve our learning by thinking about what went well and what to do better next time. 	Healthy Me <ul style="list-style-type: none"> Exercise makes your body stronger and helps you stay fit. The heart pumps blood, and the lungs help you breathe. Eating too much fat and sugar can be unhealthy, but the right amounts keep you healthy. Some drugs are medicines that help us, but others can be harmful. Some things, places, and people can be dangerous. We can stay safe by following rules and listening to trusted adults. Our feelings can help us know if something is safe or unsafe, and we should tell an adult if we are unsure. 	Relationships <ul style="list-style-type: none"> How do different family members carry out different roles or have different responsibilities within the family? What is a gender stereotype? What are the skills of friendship? e.g. taking turns, being a good listener How do you keep yourself safe online? How can the lives of children around the world be different from yours? 	Changing Me <ul style="list-style-type: none"> How does your body change when growing up? Where does a baby develop in a woman? What do babies need from their parent/carer? What changes happen between being a baby and a child? What happens to your body doing puberty and why?


Design Technology 	Textiles: Cross Stitch and Applique <ul style="list-style-type: none"> Appliqué is a sewing technique where pieces of fabric are sewn onto another piece of fabric to create a design. A seam is the line where two pieces of fabric are sewn together. It is important to leave space for the seam so there is enough fabric to sew pieces together securely. Some products are turned inside out after sewing so the stitches are hidden and the item looks neater. 	Mechanisms: Pneumatics <ul style="list-style-type: none"> Pneumatic systems use air to make things move. Pneumatic systems are used to create movement in machines. They work by taking in air, squeezing it, and releasing it. Design ideas can be shown using drawings and labels. An exploded diagram shows all the parts of something separately. Thumbnail sketches are quick, small drawings used to plan ideas. 	Food Technology: Culture and Seasonality <ul style="list-style-type: none"> Seasonal food grows at certain times of the year. Different foods grow in different seasons in the UK. Flavour is how food tastes. Texture is how food feels. We must cut and peel safely using tools carefully. How food looks (presentation) is as important as taste. Foods with similar colours often have similar nutrients


RE (3) 	Hinduism <ul style="list-style-type: none"> Diwali is the Hindu Festival of Lights. Hindu children feel happy and excited during Diwali. Hindus celebrate Diwali by lighting lamps, sharing food and sweets, and spending time with family. 	Christianity <ul style="list-style-type: none"> The Nativity story is the story of Jesus being born in Bethlehem. People celebrate Christmas by giving gifts, sharing food, and spending time with family. Christians believe Jesus is the Son of God and was sent to bring love and hope. 	Christianity <ul style="list-style-type: none"> Jesus healed people by helping them get better from illness, making them well, and showing kindness. Christians describe Jesus' miracles as amazing signs of God's power that show he could heal, help, and care for people. 	Christianity <ul style="list-style-type: none"> The cross, bread, and wine are symbols that remind Christians of Jesus and the Last Supper. Christians believe Jesus' death is "good" because they think it showed love and forgiveness for others. 	Hinduism <ul style="list-style-type: none"> Hindus believe in many gods and goddesses, including Brahma, Vishnu, Shiva, Lakshmi, and Saraswati, who represent different parts of Brahman. Hindus believe Brahman is everywhere and in everything. 	Hinduism <ul style="list-style-type: none"> The River Ganges is in India and is important to Hindus because they believe it is a holy river. Hindus bathe in the River Ganges as a ritual to wash away sins and become spiritually clean.


Music 	Untuned Percussion	Structure	Musical Notation	Singing	Composition	Improvisation

Online Safety 	Privacy <ul style="list-style-type: none"> I can keep passwords private and make them hard to guess. I can explain that I should only share information with people I trust and tell a trusted adult if I feel unsure or pressured. I can explain that connected devices can collect and share information about people. 	Online Relationships <ul style="list-style-type: none"> People with similar interests can connect online in different ways. Knowing someone online is different from knowing someone in real life. Trusting someone online is not the same as liking them, and we must be careful who we trust. People can change their mind about sharing if they feel worried or uncomfortable. Words and messages online can hurt people's feelings. We should ask for permission before sharing things online, just like we do offline. 	Health, Wellbeing and Lifestyle <ul style="list-style-type: none"> Spending too much time on technology can sometimes be bad for our health and wellbeing. Some activities are easy to spend a lot of time on, and they can be either good or bad for us. Some online activities have age limits, and it is important to follow them and talk to a trusted adult if we feel pressured or uncomfortable. 	Online Bullying <ul style="list-style-type: none"> I can be kind and respectful to others online, and this is important to keep everyone safe and happy. Bullying online can include mean messages, name-calling, or leaving someone out, and people can get help from a trusted adult or teacher.
	Online Reputation I can explain how to search for information about others online	Managing Online Information I can demonstrate how to use key phrases in search engines to gather accurate information online.	Self-image and identity I can explain what is meant by the term 'identity'.	Copyright and Ownership I can explain why copying someone else's work from the internet without permission

I can give examples of what anyone may or may not be willing to share about themselves online. I can explain the need to be careful before sharing anything personal. I can explain who someone can ask if they are unsure about putting something online.	I can explain what autocomplete is and how to choose the best suggestion. I can explain how the internet can be used to sell and buy things I can explain the difference between a 'belief', an 'opinion' and a 'fact' and can give examples of how and where they might be shared online, e.g. in videos, memes, posts, news stories etc. I can explain that not all opinions shared may be accepted as true or fair by others (e.g. monsters under the bed). I can describe and demonstrate how we can get help from a trusted adult if we see content that makes us feel sad, uncomfortable, worried or frightened.	I can explain how people can represent themselves in different ways online I can explain ways in which someone might change their identity depending on what they are doing online (e.g. gaming; using an avatar; social media) and why.	isn't fair and can explain what problems this might cause.
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<p>Computing</p> 	<p>General Skills</p> <p>Can you review photos in the Photos app, change filters, and add mark-up? Can you use a screenshot for a specific purpose, such as providing evidence of work? Can you organise your reading materials using the iBook's app?</p>	<p>Publishing (Pages)</p> <p>Can you add an image from Photos? Can you add and format a shape or icon? Can you crop an image appropriately? Can you create a flyer to advertise a holiday at a place you have been studying, like Greece in History?</p>	<p>Presentation (Keynote)</p> <p>Can you add an image from Photos? Can you add a shape or icon? Can you crop an image appropriately? Can you format a shape or icon? Can you add additional slides to a presentation? Can you produce a short presentation</p>	<p>Filmmaking (iMovie)</p> <p>Can you format images and sounds in the timeline? Can you edit objects in the timeline using cuts, stretching, and repositioning? Can you add soundtracks, sounds, music, or voiceovers? Can you produce a short film from still images explaining how mining has changed?</p>
	<p>Sound production (Garageband)</p> <p>Can you create a new project and name it? Can you alter the timing of a piece? Can you create a simple tune using smart instruments? Can you create a multitrack tune using instruments or loops? Can you produce a soundtrack that adds tone and mood to a performance of a poem linked to the Tin Forest?</p>	<p>Coding (Scratch)</p> <p>Can you record a sound? Can you animate a name? Can you animate a sprite? Can you add effects? Can you create a scene where a character describes their life, incorporating sound and effects? Can you use a sprite to describe features of a location, utilizing images as backgrounds related to a specific topic?</p>	<p>Social Media</p> <p>Can you create a new project and name it? Can you use and manipulate text for effect in a selfie film? Can you use images, text, and stickers effectively to support audience engagement in a presentation? Can you create a 30-second review of an artefact, such as volcanic rocks, to demonstrate your understanding?</p>	<p>VR/AR Reality Composer</p> <p>Can you collect data in a Numbers document and display it as a chart? Can you use a range of data collection techniques, including numerical, rating, and checklist methods? Can you present the results of a science experiment in table and graph format, linked to a specific topic such as forces in a parachute drop?</p>

<p>French</p> 	<p>I am Learning French - J'apprends le français</p> <p>I can find France on a map of the world if an adult directs me to some of the surrounding countries. I can repeat all my personal details in French and ask for the same information back when a teacher or adult gives me a model answer and allows me to practice. I can recognise some numbers from 1-10 in French. I can recognise some of the key ten colours in French</p>	<p>Les Animaux</p> <p>I can name and spell all ten animals in French with their correct article/determiner from memory and with high accuracy. I fully understand that articles/determiners work differently in French than they do in English and that I will always learn the article/determiner alongside the noun. I can say/write at least ten short phrases using the verb 'je suis' (I am) and each animal in French. I can do this from memory and with high accuracy.</p>	<p>Instruments</p> <p>I can name/spell all ten instruments in French with the correct definite article/determiner. I understand that the instruments do not all have the same definite article/determiner and know which definite articles/determiners go with each instrument confidently from memory. I can say/write ten short phrases on the ten different instruments in French from memory.</p>
	<p>I am able</p> <p>I can name and spell all ten action verbs in French from memory and with high accuracy. I can match these verbs to their picture easily. I can say/write ten phrases using the verb 'je peux' (I am able) and 'je ne peux pas' (I am not able) plus each action verb in French. I can put these structures together to form a more complex sentence with the conjunctions 'et' (and) & 'mais' (but), describing what I am and am not able to do in French.</p>	<p>Vegetables</p> <p>I can name and recognise all ten vegetables presented in this unit in their plural form. I can attempt to spell more than five of these vegetables in French with relative accuracy. I can ask somebody in French for a particular vegetable, using "Je voudrais" with no reminder first and know how to ask for one kilo or a half kilo. I can perform a very simple French role-play about buying vegetables at a market stall.</p>	<p>Ice cream</p> <p>I can name and recognise all ten ice-cream flavours as presented in this unit. I can attempt to spell more than five of these flavours in French with high accuracy. I can say in French that I would like an ice-cream using 'je voudrais'. I can specify in French what flavour ice-cream I would like.</p>

<p>PE</p> 	<p>Swimming</p> <p>Enter and leave the pool safely Listen to the instructor and follow instructions Follow poolside rules swim competently, confidently and proficiently over a distance of at least 25 metres use a range of strokes effectively [for example, front crawl, backstroke and breaststroke] perform safe self-rescue in different water-based situations</p>	<p>Handball and Mindfulness</p> <p>Know how music relaxes you Know how to respond to music through movement Know how to use movement to express how we feel Know how meditative poses can help our mind and focus Know how to create spaces Know how to pass and move into space to be able to score a goal</p>	<p>Symmetry and Asymmetry</p> <p>Know what symmetry it and asymmetry Know what different parts of our bodies we can move on Know how to move out of balances Know how to travel to new apparatus Know how to perfect sequences</p>
	<p>Tennis</p> <p>Know why we don't stand still in tennis. Know why we need to recover to the middle of the court to be ready. Know where to throw the ball Know where to position your hand on the racket Know how to beat the opponent</p>	<p>Cricket / Throwing</p> <p>Know how to throw the ball? Know the consequences of a good and a bad throw Know the aim of the game for batters and fielders. Know how to use our arms to throw with more accuracy Know where to look and what to do when fielding</p>	<p>Mindfulness</p> <p>Know why relaxation is important Know how we feel when we are energetic and running around Know why focus is important Know how to work with a partner to execute balances</p>

Retrieval Practise Sessions:

At Handale, we understand that regular retrieval practice embeds learning in to the long term memory – and as such, we aim to regularly retrieve prior learning through fun, low stakes retrieval opportunities.

If a teacher assesses that a concept or word is not well embedded, they must ascertain how this will be improved?

- Embedded in to a curriculum lesson
- Taught there and then – as part of the retrieval session
- Embedded in to the next few sessions to gain repeated exposure of the concept to aid overlearning

Over the year, with regular retrieval practice sessions, as well as revisit opportunities built in to the curriculum, it is hoped that the vast majority of children will have the above knowledge firmly embedded in to their long term memory.