



Planning for retention  
Key of Knowledge | Year 4

Outlined below is the 'sticky' knowledge for Year 4. 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. Number in brackets is amount of knowledge points expected per unit.

|  | Animals including Humans                                                                                                                                                                     | Living things and their habitats                                                                                                                                                                                                       | States of Matter                                                                                                                                                                                                                                                                                              | Electricity                                                                                                                                                                                                                                                                                                                                                                           | Sound                                                                                                                                                                                                                                                                                                                                                                                       |
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|                                                                                   | <p>The parts and functions of the digestive system.</p> <p>The different types of teeth and their functions.</p> <p>The parts of a food chain are producer, consumer, predator and prey.</p> | <p>Living things can be grouped in a variety of ways and classification keys can help to group, identify and name a variety of living things.</p> <p>Environments can change and this can sometimes pose dangers to living things.</p> | <p>Materials can be compared and grouped together according to weather they are solids, liquids or gases.</p> <p>Some materials change state when they are heated or cooled.</p> <p>Evaporation and condensation are parts of the water cycle.</p> <p>Rate of evaporation is associated with temperature.</p> | <p>Many common appliances run on electricity.</p> <p>A simple circuit can be made using cells, wires, bulbs, switches and buzzers.</p> <p>A lamp will only light in a simple circuit if it is part of a complete loop with a battery.</p> <p>A switch opens and closes a circuit.</p> <p>Conductors, conduct electricity but insulators don't.</p> <p>Metals are good conductors.</p> | <p>Sounds are sometimes made by something vibrating.</p> <p>Vibrations from sound travel to the ear.</p> <p>Links between the pitch of a sound and features of the object that made it can be made.</p> <p>Links can be made between the volume of a sound and the strength of the vibrations which made it.</p> <p>Sounds get fainter as the distance from the sound source increases.</p> |

|  | History | Romans                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Vikings                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Ancient Egypt (1)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
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|                                                                                   |         | <p>The Ancient Roman civilisation began in 753BC when the city of Rome was founded.</p> <p>Britain had lots of goods, land and slaves, which the Romans wanted.</p> <p>The Roman Emperor Julius Caesar, made two failed attempts to invade Britain.</p> <p>100 years later, Emperor Claudius took over the South of England.</p> <p>Before the Romans successfully invaded Britain in 43 AD, the land was inhabited by Iron Age people, known as the Celts.</p> <p>These people lived in separate tribal kingdoms each with their own Celt leader.</p> <p>Boudica was a queen of the Celtic Iceni tribe.</p> <p>Boudica was a queen of the Celtic Iceni tribe and the wife of King Prasutagus.</p> <p>When the Romans invaded, they allowed King Prasutagus to continue to rule his tribe however, when he died, the Romans wanted it back as they didn't believe women had the rights to land or power</p> <p>Boudica convinced other Celtic tribes to help her rebel.</p> <p>The Romans eventually defeated Boudica and her Armies.</p> <p>The Romans introduced one central government, built new forts, new settlements and an extensive network of roads to make it easier to travel and trade.</p> <p>Britain became cleaner and more civilised.</p> <p>The Roman armies left Britain in 410AD because their armies were needed to defend other parts of the empire.</p> | <p>Ironstone mining began in Redcar and Cleveland in the 1840s</p> <p>Many other mines opened in the next 20 years as the industry grew across the Borough.</p> <p>People travelled from far and wide seeking work and many settled with their families and a community was soon established.</p> <p>The families of miners found it difficult to manage on the wages that they received so many children had to leave school to gain work to bring money into the family home.</p> <p>Working in the mines was dirty, physically demanding and dangerous due to the risk of explosion and unstable structures.</p> <p>Tom Leonard worked at South Skelton Mines office and as the region's ironstone industry was rapidly dwindling, his dream arose to open a museum to preserve, display and interpret this integral part of local history for posterity.</p> <p>The prosperity of the opening of the mines (1848) and the changes to the area contrasted significantly with the closure of the mines (1958)</p> | <p>Ancient civilisations came about after people began to settle into villages which then grew to become cities.</p> <p>The earliest civilisations tell us that the location of where a group settled was very important for its ability to grow and succeed.</p> <p>The River Nile's waters made the land surrounding the river's banks extremely fertile and a perfect place to grow food for future farmers.</p> <p>Over time, the farming villages along the River Nile grew and turned into early towns and cities.</p> <p>During the same time period as the Bronze Age in Britain, the Ancient Egyptian civilisation was thriving with enormous cities and temples and Pharaoh kings ruling over the lands.</p> <p>The Ancient Egyptians believed in life after death.</p> <p>They used a process called mummification to preserve the body after death because it was needed for the afterlife.</p> <p>Pyramids were built as tombs for Pharaohs and Queens and they held treasures for the afterlife.</p> <p>The boy king Tutankhamun the last of this dynasty to reign over Egypt.</p> <p>He is famous because his body was found by the archaeologist, Howard Carter in 1922, almost fully intact and full of treasures.</p> <p>The Egyptians' inventions and discoveries have shaped the modern world that we live in today.</p> |

|  | Geography | Locational Knowledge                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Place                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Human and physical geography                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Geographical skills and fieldwork                                                                                                                                                                                                                                                                                                                                                                                                                                     |
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|                                                                                     |           | <p>Eight European countries, including their capital cities, are France (Paris), Germany (Berlin), Spain (Madrid), Italy (Rome), Sweden (Stockholm), Netherlands (Amsterdam), Poland (Warsaw), Greece (Athens).</p> <p>The two largest seas in Europe are the Mediterranean Sea, the Baltic Sea.</p> <p>Latitude and longitude can be used to locate key places.</p> <p>Several North and South American countries are Canada, USA, Brazil, Mexico, Argentina, Chile, Peru, Colombia.</p> | <p>A place might be like in the future by considering how things might change, such as the construction of new buildings or the impact of climate change.</p> <p>Differences between living in the UK and a country in Eastern Europe, such as Poland, could include the weather, food, and daily routines.</p> <p>Their local area might have been a farming community in the past, but now it has more houses, shops, and roads due to urbanization.</p> <p>The Amazon rainforest and the Amazon River can be located using an atlas or globe, with the Amazon River flowing through South America, primarily in Brazil.</p> | <p>The main features of a river include the source, mouth, tributaries, and riverbank.</p> <p>The water cycle features include evaporation, condensation, precipitation, and collection.</p> <p>The water cycle can be explained through diagrams showing how water moves through the environment.</p> <p>Symbols are used on maps to represent physical features like rivers, mountains, and forests.</p> <p>Localities can change over time with reference to physical features, such as roads being built or coastlines eroding.</p> <p>The differences between living in the UK and a Mediterranean country (e.g., Spain) include warmer weather, different foods, and a more outdoor lifestyle in Mediterranean countries.</p> | <p>Information about a place can be collected and organised into a report.</p> <p>Graphs can be used to record data, such as temperature or rainfall, from various locations.</p> <p>Geographical questions about a place can be posed and answered using fieldwork observations.</p> <p>Detailed sketches and plans can be made and refined for accuracy.</p> <p>A journey within the UK can be planned using a road map, and a simple itinerary can be created.</p> |

|  | PSHE | Relationships | My Body, My Health | Life Cycles | Keeping Safe & Looking after myself | People who help me | Living in Our World | Feelings & Attitudes, Mental Wellbeing |
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|                                                                                     |      |               |                    |             |                                     |                    |                     |                                        |

|  | Art and Design (knowledge of art and artists) | Drawing                                                                                                                                                                                                                                                                                                                                                                                  | Painting                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Sculpture                                                                                                                                                                                                                                                                  |
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|                                                                                     |                                               | <p>Complementary colours are opposite on the colour wheel.</p> <p>Tones are blended with little visual appearance of intervals (pencil, pastel)</p> <p>identify a wider range of different moods associated with colour (other than warm and cool) – e.g., vibrant, calm, love, relaxed, fiery, angry, powerful, moody and sad.</p> <p>Scale is a comparison of size between objects</p> | <p>There is a difference between shades, tints and tones (shade: Shade is a hue or mixture of pure colours to which only black is added, Tint: mixture of pure colours to which white is added, Tone: mixture of pure colours to which only pure grey is added (equal amounts of black and white).</p> <p>Different paint types have different properties (e.g., the varying consistency and glossiness or watercolour and poster paint).</p> <p>Lines can be used expressively to portray mood (curvy - calm, straight – angry)</p> | <p>Rolling out 3D shapes and form them into an object required flat slabs, created with a rolling pin, raised with two pieces of wood.</p> <p>The clay can be decorated by imprinting or through relief techniques.</p> <p>Joining should be seamless by using 'slip'.</p> |

|  | Design Technology | Structures                                                                                                                                                                                                                                                                                                                                                        | Food Technology: Culture and Seasonality                                                                                                                                                                                                                                                                                                                             | Mindful Moments timer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
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|                                                                                     |                   | <p>frame structure is a type of structure made from a framework of connected parts.</p> <p>A 'free-standing' structure can stand on its own without support.</p> <p>A pavilion is a decorative building or structure for leisure activities.</p> <p>Cladding is applied to structures for different effects.</p> <p>Aesthetics refers to how a product looks.</p> | <p>The amount of an ingredient in a recipe is known as the 'quantity'.</p> <p>Safety and hygiene are important when cooking.</p> <p>The following cooking techniques are used:sieving, measuring, mixing/stirring, cutting out, and shaping.</p> <p>Budgeting is important when planning ingredients for a recipe.</p> <p>Products often have a target audience.</p> | <p>AVariables are used in programming to store and manipulate data.</p> <p>Some of the features of a micro:bit include buttons, a display, and sensors.</p> <p>An algorithm is a set of instructions to be followed by the computer.</p> <p>It is important to check code for errors (bugs) to ensure it works correctly.</p> <p>A simulator can be used to check if code works before installing it onto an electronic device.</p> <p>'Ergonomic' refers to design that is comfortable and efficient for users, while 'aesthetic' refers to how something looks.</p> <p>A prototype is a 3D model made out of cheap materials that allows us to test design ideas and make better decisions about size, shape, and materials.</p> |



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|  |  |  | The nationality can be explained, with the knowledge that pronunciation changes for boys and girls, e.g., "Je suis anglais" (for a boy) and "Je suis anglaise" (for a girl). |  | feminine objects) is applied to the classroom objects.<br><br>The ability to recall and state in French what is and isn't in the pencil case is developed, both in spoken and written form. | Plural forms of nouns in French, such as "des croissants" (some croissants), can be used with confidence.<br><br>The ability to confidently ask for food and drink in a French salon de thé is developed, using correct vocabulary and sentence structure. |
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| <div>PE</div> <div></div> | Invasion Games<br>(Football Lacrosse Tag Rugby Handball) | Dance      | Striking and Fielding<br>(Rounders and Cricket) | Athletics |
|                                                                                                            |                                                          |            |                                                 |           |
|                                                                                                            | OA                                                       | Gymnastics | Net Wall Games<br>Tennis                        |           |
|                                                                                                            |                                                          |            |                                                 |           |

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.