| **Science** **Core Learning** **Class 2** **YEAR B** |
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|  | **Autumn Term** | **Spring term**  | **Summer Term**  |
| **Unit of work**  | **London’s burning…so is Nantwich**Everyday materials and Uses of everyday materials – focus on comparing and change**Exploring change****Brilliant builders** | **Seas and coasts**Animals including humans – petsLiving things and their habitats**People and their pets****Habitats and homes** | **How does your garden grow?**Seasonal changesPlants – focus on plants and trees**Weather Art****Art and nature**  |
| **Prior Learning**  | Children have previously looked at properties of everyday materials | Children have looked at habitats and grouping animals | Children have looked at parts of plants and their basic needs |
| **Key Essential Knowledge** **(Nuggets)** | * Why do things melt?
* How do puddles disappear?
* How does water change?
* What is melting and boiling?
* Why doesn’t rain go through my coat?

* Why are different materials used for different purposes?
* What materials help to clean up? Why?
* Where do materials come from?
 | * What can we find living at school?
* Are all animals the same?
* Do all animals have the same needs?
* How can I help plants to grow?
* Why is farming important to our food chain?
* Why and how should we look after the environment?
* What do animals need and how can we help them?
 | * Why does our weather change?
* How can weather affect us?
* Why is it darker sooner in the winter?
* What is the sun and how is it helpful?
* What is a shadow and how do they change?
* What plants can I find in my garden?
* How do plants spread their seeds?
* What are the parts of a plant and are the parts of trees the same?
* What trees can we see? deciduous and evergreen.
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| **Progression of Learning in lessons-Objectives covered**  | Exploring change1. Can I observe changes to material and describe what I’ve seen?
2. Can I investigate how to melt ice quickly without breaking it?
3. Can I observe changes to a puddle and describe what I’ve seen?
4. Can I identify how water changes into ice and stream?
5. Can I identify whether wax is a waterproof material?
6. Can I identify what happens to a solid when it is heated up and cooled down?

Brilliant Builders1. Can I select materials and consider which one is best for fixing a broken umbrella?
2. Can I test materials and explore why some materials let water through and others do not?
3. Can I think about hard materials and their absorbent properties?
4. Can I test and explore different materials and their absorbencies?
5. Can I explore different fabrics and investigate their waterproof nature?
6. Can I explore the textures and properties of different materials?
 | People and their pets1. Can I explore and observe habitats around school?
2. Can I investigate habitat conditions for woodlice?
3. Can I compare the needs of different animals?
4. Can I understand the key differences between animals?
5. Can I explore and investigate what pets need?
6. Can I compare similarities and differences of pets?

Habitats and homes1. Can I understand what is needed to successfully grow plants?
2. Can I apply my knowledge of habitats to micro-habitats?
3. Can I understand the importance of farming in our food chain and the impact on protecting the environment?
4. Can I use my knowledge to plan and adapt my own micro-habitat?
5. Can I harvest edible foods and discuss their textures and taste?
 | Weather art1. Can I talk about the four seasons and what weather is associated with each season?
2. Can I investigate wind and how we can measure it?
3. Can I discuss the effects of wind and what happens on windy days?
4. Can i understand what a light source is and how light can be used?
5. Can I explore and discover how the sun’s position can be used?
6. Can I investigate and explore how shadows are made?

Art and nature1. Can I identify and name common plants and materials they are used for?
2. Can I explain how seeds can be dispersed?
3. Can I investigate how insects can affect plants and the role pollen has in creating new plants?
4. Can I name and identify parts of a plant?
5. Can I look at parts of a plant in detail?
6. Can I name and identify parts of a tree and name common trees?
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| **Core Learning****Skills** | Ask simple questions and recognise that they can be answered in different ways.Observe closely, using simple equipment.Identify and classify.Use their observations and ideas to suggest answers to questions | Ask simple questions and recognise that they can be answered in different ways.Observe closely, using simple equipment.Identify and classify.Use their observations and ideas to suggest answers to questions.Gather and record data to help answer questions | Ask simple questions and recognise that they can be answered in different ways.Observe closely, using simple equipment.Identify and classify.Use their observations and ideas to suggest answers to questions.Gather and record data to help answer questions |
| **Vocabulary** | Water, ice, melts, frozen, observe, materials, propertiesRough/smooth, flat/bumpy, sharp/blunt, wood, metal, plastic, glass, rock, materials, propertiesMagnetic, non-magnetic, metal, materials, properties | Notice, patterns, behaviour, habitat, living things, damp, shady, dry, Observations, prediction, habitat, Happy, healthy, explore, investigate, observe, Birds, fish, amphibians, reptiles, mammals, invertebrates, group, similarities and difference, Growth, germination, planting, edible, mini-beasts, habitats | Rain, snow, storm, thunder, lightning, warm, cold, forecast, summer, autumn, winter, spring, seasons |
| **End of Unit Application Task**  | What material would be suitable for a blanket?Why have you chosen this?What 3 materials could you make a bottle with? Sort these objects into natural and man made.Circle the three items that can be stretchedWhy is leather a good material for making shoes?Can you name a material that you could squash?Can you name a material that would not bend?Would wood be a good material for a spoon? Why or why not? | Why would an animal want to blend in with its surroundings?What is it called when an animal blends in with its surroundings?Each of these pictures shows something that iseither alive, used to be alive or something that has never lived. Draw lines to join them to the correct box.Each of these sentences describes something thatis either alive or not alive. Write either alive or not alive next to each statement: It does not need food. It can have babies (reproduce). It can grow and move.Match each animal to the most suitable habitatComplete this simple food chainMatch the minibeasts to their microhabitat | What does a plant need to grow?If I plant and seed and it doesn’t grow, why might this be?Why do plants produce seeds?Jack put some soil in a small pot. He planted the seeds and put the pot somewhere warm. The seeds did not grow. Why not?Why are most seeds hard on the outside?Draw a line to match the parts of the plant to their jobThe pictures below are of the life cycle of a bean. Put the numbers 1-6 in the boxes to order the cycle.What differences did you notice about the plants outside in summer and winter?What happened to the trees in Autumn. Why is this? |