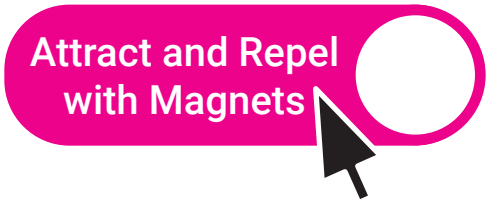
Parent and Carer Information: Year 3 Science

This guide helps you to track the progress of your year 3 child as they develop through the subject of science. In year 3, children learn the key skills that form the basis of their science education, including studying living things, changes of state and the practical skills of investigations and experiments. Practising these skills at home can be a great way to your boost child's confidence and complement what they learn in the classroom. This guide outlines how you, as parents and carers, can best support your child's year 3 science journey, with an easy-to-follow flowchart of what they will learn and clear goals for you to work on together.

Click on each topic to head to the relevant category on the Twinkl website to find super resources to support your child.



Attract and Repel with Magnets

Alternatively, you can follow the web url **www.twinkl.co.uk/resources/parents** to get to the Twinkl Parents Hub.

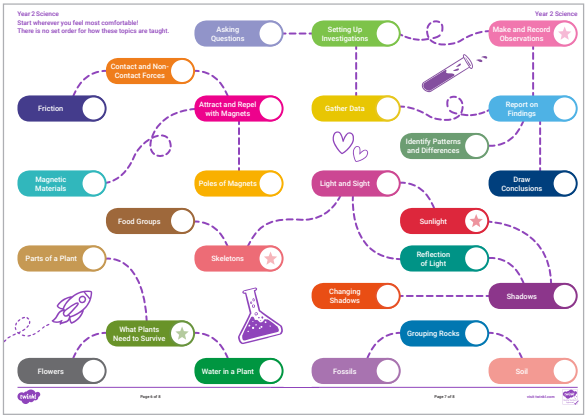
We have also included handy tick boxes, so you can easily check off when you have covered each topic, and you can keep on track with your child's studies. You can also use the 'traffic light' system to record your child's confidence, and how they feel about the topic you have covered together.

Stick the other pages together to create a display poster for both you and your child to fill in. Complete with handy tick boxes, this chart is ideal for helping to support your child's studies from home.

I feel unsure about this.

I feel okay about this.

I feel confident about this!



We hope you find the information on our website and resources useful. The contents of this resource are for general, informational purposes only. This guide is intended to offer parents general guidance on what subject areas tend to be covered in their child's year group and where they could support their children at home. However, please be aware that every child is different and information can quickly become out of date. There are some subject areas that we have intentionally not covered due to the nature of how they are taught or because a trained professional needs to teach these areas. We try to ensure that the information in our resources is correct but every school teaches the national curriculum in its own way. If you would like further guidance or are unsure in any way, we recommend that you speak to your child's teacher or another suitably qualified professional.

Asking Questions

Your child can ask sensible questions to find out more about a scientific subject. They can pose a question that they wish to test using an investigation or experiment.

Setting Up Investigations

Your child can create an investigation or experiment to test a question that they have set. They think carefully about what they want to find out and decide how they can test this. They think of rules for the investigation and ways of recording what they find out.

Make and Record Observations

Your child can make observations of what they see happen in an investigation or experiment they carry out. They can record measurements of what is happening by using simple equipment such as rulers, timers, scales and measuring jugs.

Gather Data

Your child can gather together the measurements they take during an investigation or experiment and can record this data in tables, graphs and charts. This makes the information more visual and easier to understand.

Report on Findings

Your child can report back what they have found in an investigation or experiment. They can present what they did, what they found out and what this means to other people, using both spoken and written feedback. This can include presentations, display posters and write-ups.

Identify Patterns and Differences

Your child can recognise patterns in what they have found out during an investigation or experiment. They can say if a set of results supports or disproves what they were trying to find out.

Draw Conclusions

Your child can look at the information they gather from an investigation or experiment and decide what this means. They can apply this information to their initial question and decide on an answer. Also, they can suggest ways that their investigation or experiment could be improved or changed to test a further question.

Contact and Non-Contact Forces

Your child can recognise that a lot of forces need contact between objects to work. For example, pushes, pulls and friction all need some form of contact to happen. However, they understand that magnets can work over a distance. Magnets do not necessarily need to be in contact with something else to exert a force.

Friction

Your child can identify that things move at different speeds across different surfaces. They understand that a rougher surface will make it more difficult for an object to move while a smoother surface will make it easier. They can identify that this is because the friction is increased on a rougher surface and decreased on a smoother surface.

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Magnetic Materials

Your child can name some materials that magnets are attracted to and some that they are not. They can group and sort these materials based on whether they are attracted to a magnet or not.

Poles of Magnets

Your child can identify that a magnet has two poles, a north and a south one. They understand that this affects whether a magnet is attracted or repelled by another magnet. The opposite poles are attracted to each other, whereas the same poles repel each other. For example, north and north will push away from each other, south and north will pull together.

Food Groups

Your child can recognise that a number of different food groups exist. They understand what the different food groups do for the body, for example, carbohydrates are for energy and proteins help the body grow.

Skeletons

Your child can describe that some animals have skeletons while others do not. They understand that the skeleton has a number of different purposes such as protecting vital organs, giving the body support, allowing the animal to stand and aiding with movement.

Light and Sight

Your child can explain that you need light to be able to see. They understand that when they see, light is travelling into their eyes. They recognise that darkness is a lack of light and we can't see in darkness because there is no light to enter our eyes.

Sunlight

Your child can describe that sunlight can be dangerous for your eyes and understand that you shouldn't look directly at the sun as this will damage your eyes. They can name a few ways that you can protect your eyes from the sun, for example, using sunglasses and hats.

Reflection of Light

Your child can explain that light reflects from surfaces. They can use mirrors to show how light reflects and travels in straight lines.

Shadows

Your child can recognise how shadows are formed. They describe how an opaque (not see through) object blocks the light and a shadow is created behind it. They understand that shadows are formed because light travels in straight lines.

Changing Shadows

Your child can change the shape and size of different shadows. They recognise that if you move the object closer to the light source, the shadow becomes larger, while if you move the object away from the light source the shadow becomes smaller.

Parts of a Plant

Your child can describe what different parts of a plant do. For example, they understand that the roots anchor the plant for support and absorb water and nutrients from the soil, or that the leaves absorb oxygen and light.

What Plants Need to Survive

Your child can understand that plants need air, soil, light, water, nutrients and space in order to grow and survive. They recognise that some plants can grow and survive with different levels of these things. For example, the cactus can live and grow without much water, the dragon plant can survive without much light and air plants don't need soil to grow.

Water in a Plant

Your child can describe that water moves around a plant. They recognise that the roots absorb water from the ground, the stem transports water up the plant, where it then moves around the leaves and flowers. They can use investigations, such as the coloured water experiment, to see how water moves up to the flowers.

Flowers

Your child can describe the role that flowers play in the life cycle of a plant. They understand that the flower is the part of the plant responsible for reproducing. They can describe that the flower attracts insects for pollination.

Grouping Rocks

Your child can compare the appearance and physical properties of different rocks. For example, they can say if a rock is hard or soft, solid or crumbly, smooth or rough and layered or all one colour. Using this information, your child can then sort and group rocks together.

Fossils

Your child can describe how a fossil is formed. They understand that a fossil can be formed when a creature dies and is buried in earth and silt. The creature's bones are then held in the rock and when they disappear they leave behind an imprint.

Soil

Your child can identify that soil is made up of rocks and organic material. They can describe that soil is a mixture of minerals, clay, silt, rocks and sand.

Above and Beyond

If you really want to go the extra mile, you and your child can review these sections to gain a greater understanding of each topic and push your learning further.

Solids, Liquids or Gases

Your child can name some materials that are liquids, gases and solids. They understand that the different states of matter have different properties. For example, liquids can flow and will change to the shape of the container they are in, whereas solids do not flow or move and they keep their own shape.

Teeth

Your child can identify that there are different types of teeth. They can name a few different types of teeth with a little support. For example, incisors, molars and canines.

Sunlight

Your child can recognise that not only can sunlight be dangerous for your eyes but also for your skin. They can describe how the sun can burn your skin if you are out in it for too long and can name different ways to protect themselves from the sun.

Plant Food Production

Your child can identify that plants are capable of producing their own energy internally. Unlike animals, who need to ingest food for energy. They can describe that leaves are important for turning sunlight, water and carbon dioxide into energy.

Year 3 Science

Start wherever you feel most comfortable!
There is no set order for how these topics are taught.

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Friction

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Magnetic Materials

Poles of Magnets

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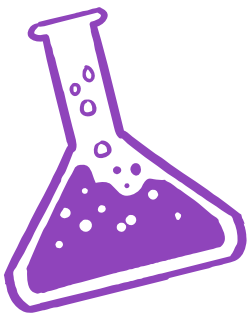
Skeletons

What Plants Need to Survive



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Explore and Discover More

Twinkl Go! is a digital platform, hosting interactive content such as videos, games, audiobooks and more. Twinkl Go! enables digital content to be streamed to your computer or mobile device.

Twinkl Book Club is our book subscription service. Enjoy our original works of fiction in beautiful printed form, delivered to you each half-term and yours to keep!

Twinkl Boost is a range of intervention resources, created to support and lift learning with children at every level. These include our easy-to-use SATs and Phonics Screening resources.

Imagine resources are designed to help your children to think creatively, question and imagine. Every week, a new topic consisting of five photos, each with related activities, is created.

Twinkl Originals are engaging stories written to inspire pupils from EYFS to KS2. Designed to encourage a love of reading and help curriculum-wide learning through accompanying resources.

Twinkl Kids' TV is our wonderful YouTube channel dedicated to fun and informative video style resources full of new and creative activities you can try at home!