

Welcome to Spring 1!

This term we will be focusing home learning on ‘Properties and materials’. This will help consolidate the learning taking place in school.

All pupils must complete the tasks by Monday 5th February 2024.

All pupils are expected to do the following weekly set task alongside:

- ✓ **Daily reading—The expectation is that your child will read daily for a minimum of 20 minutes at home – using the online ‘Boost’ programme.**
- ✓ **Weekly maths – My Maths home learning tasks, maths games and activities on OneNote**
- ✓ **Weekly Spellings – see below**

Education must develop every child’s personality, talents and abilities to the full (UNCRC Articles 28 & 29). We can’t wait to see what you do and look forward to seeing your wonderful home learning.

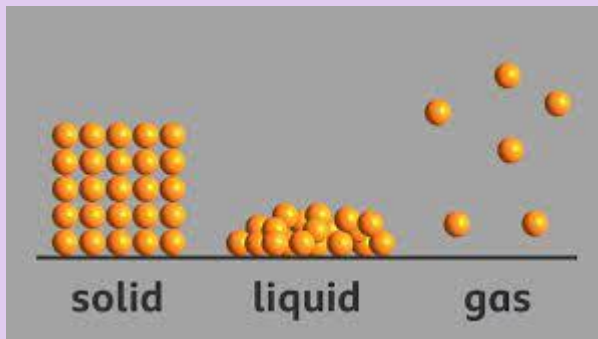
Yours Sincerely,

Year 5 Team

Focus – Properties and materials

Some facts about properties and materials:

- Materials have diverse properties like hardness, flexibility, and conductivity.
- Different materials serve specific purposes based on their unique properties.
- States of matter include solids, liquids, and gases, influenced by temperature.
- Everyday materials include wood, metal, plastic, glass, and fabric.
- Materials can undergo reversible changes (e.g., melting) and irreversible changes (e.g., burning).
- Mixtures combine materials without chemical reactions, while solutions involve dissolving.
- Recycling conserves resources and reduces environmental impact.
- Forces can impact materials, causing stretching, bending, or compression.



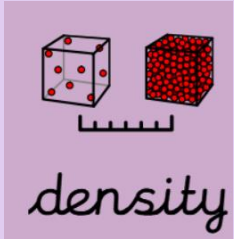







Reversible and Irreversible Changes





More information



- Transparent materials, like glass and clear plastics, allow light to pass through.
- Elastic materials, such as rubber bands, can stretch and regain their original shape.
- Some materials, like sponges, can absorb liquids, showcasing the property of absorption.

Key Vocabulary and definitions linked to Space

Word	Definition	Word	Definition
 <p><i>density</i></p>	The measure of how much mass is contained in a given volume of a substance. Denser materials have more mass packed into a specific space.	 <p><i>brittleness</i></p>	The tendency of a material to fracture or break without significant deformation. Brittle materials are prone to shattering.
 <p><i>conductivity</i></p>	The ability of a material to allow the flow of heat or electricity. Good conductors allow efficient transfer, while insulators resist the flow.	 <p><i>viscosity</i></p>	A measure of a fluid's resistance to flow. Materials with high viscosity, like honey, flow more slowly than those with low viscosity, like water.
 <p><i>transparency</i></p>	The property of materials that allows light to pass through, making objects on the other side visible. Materials like glass and clear plastics are transparent.	 <p><i>malleability</i></p>	The ability of a material to withstand deformation under pressure and be shaped into thin sheets. Malleable materials can be easily worked or hammered.
 <p><i>ductility</i></p>	The ability of a material to undergo significant deformation (bend or stretch) before breaking. Ductile materials can be drawn out into thin wires.	 <p><i>tensile strength</i></p>	The maximum stress a material can withstand without breaking when stretched or pulled. It measures the material's resistance to a force pulling it apart.

Home Learning Tasks		
Week 1	Week 2	Week 3
<p>Article 2: Non-discrimination All children have all these rights, no matter who they are, where they live, what language they speak, what their religion is, what they think, what they look like, if they are a boy or girl, if they have a disability, if they are rich or poor, and no matter who their parents or families are or what their parents or families believe or do. No child should be treated unfairly for any reason.</p> <p>Reflection Task: Think about a time when you felt treated unfairly or discriminated against. How would the world be different if everyone was treated equally? Write or draw about it.</p> <p>Project: Identify and collect materials around your homes. Classify them based on properties (e.g., hard, soft, transparent). Create a visual display or chart.</p> <p>Resources - Everyday household items, chart paper, markers.</p> <p>Another way of presenting this could be to take photos of the materials and create a digital collage or presentation.</p>	<p>Article 5: Family Rights Governments should let families and communities guide their children so that, as they grow up, they learn to use their rights in the best way. The more children grow, the less guidance they will need.</p> <p>Reflection Task: Discuss with your family about activities that you enjoy together. How do these activities contribute to a happy and supportive family environment? Share your thoughts in a drawing or a short paragraph.</p> <p>Project: Conduct simple experiments to explore material properties (e.g., testing which materials float or sink, measuring flexibility). Record observations in a mini-lab report.</p> <ul style="list-style-type: none"> • Introduction • Materials and Methods • Experiment 1: Floating and Sinking • Experiment 2: Measuring Flexibility • Data Analysis • Conclusion • Reflection 	<p>Article 8: Identity Children have the right to their own identity – an official record of who they are which includes their name, nationality and family relations. No one should take this away from them, but if this happens, governments must help children to quickly get their identity back.</p> <p>Reflection Task: Create a personal identity map that represents who you are, including your interests, culture, and dreams. Reflect on the importance of respecting and celebrating the unique identities of others.</p> <p>Project: Use different materials to create artwork. Discuss how material choices impact the art. Display the creations in a virtual art gallery or physically at home.</p>  <p>Resources - Art supplies, recycled materials, camera.</p> <p>Another way of presenting this could be to create a digital art gallery using</p>

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	<p>Resources - Variety of materials, containers of water, rulers, notebooks.</p> <p>Another way of presenting this could be to create a poster or a short video explaining the experiment and findings.</p>	platforms like Padlet or present the physical art with a guided video tour.
Week 4	Week 5	Week 6
<p>Article 10: Family Reunification If a child lives in a different country than their parents, governments must let the child and parents travel so that they can stay in contact and be together.</p> <p>Reflection Task: Imagine being separated from your family for a long time. How would you feel? Write a letter or draw a picture expressing your emotions and the importance of staying together as a family.</p> <p>Project: Investigate recyclable materials at home. Create a plan to reduce waste and recycle. Document the process and changes made.</p>  <p>Resources - Recycling bins, information on local recycling guidelines, a notebook.</p>	<p>Article 13: Freedom of Expression Children have the right to share freely with others what they learn, think and feel, by talking, drawing, writing or in any other way unless it harms other people.</p> <p>Reflection Task: Think about a time when you expressed yourself creatively (through art, writing, or speaking). How did it make you feel? Create a piece of art or write a short paragraph about the importance of expressing your thoughts and ideas.</p> <p>Project: Design and build a small bridge using different materials. Test its strength and discuss the properties that make it sturdy.</p>  <p>Resources - Craft materials, small weights, books for testing.</p> <p>Another way of presenting this could be to create a short video showcasing the bridge-building process and testing results.</p>	<p>Article 17: Access to Information Children have the right to get information from the Internet, radio, television, newspapers, books and other sources. Adults should make sure the information they are getting is not harmful. Governments should encourage the media to share information from lots of different sources, in languages that all children can understand.</p> <p>Reflection Task: Explore a topic you are curious about. Research and write a short paragraph on how having access to information helps you learn and understand the world better. Reflect on why it's essential for everyone to have this right.</p> <p>Project: Write a short story or create a comic strip where materials come to life with unique personalities based on their properties. Illustrate and share with classmates.</p>

Another way of presenting this could be to develop a step-by-step guide or infographic to share recycling tips with classmates.



Resources - Paper, markers, creativity.

Another way of presenting this could be to turn the story into a digital book using online tools or present it as a narrated video.

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Spellings

Every week you will have a spelling test. Please learn the spellings.

	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7
Group 1	owl snow cried field glass love	dream head her under Plum come	moon book beard bear blink some	rain stay same flag one once	soil boy spoon step ask friend	see meet each happy twist school
Group 2	redo replace dislike disagree misbehave reappear refresh unclean untruthful misunderstand	superstar supercar supermarket superman superwoman supernatural strength sentence straight strange	antifreeze antisocial antiseptic anticlockwise subheading submarine subtitle subdivide continue surprise	autograph automobile automatic subtitle supermarket superman antifreeze antisocial subheading autobiography	happily angrily easily sensibly fussily merrily greedily actually accidently occasionally	gently simply humbly sensibly horribly possibly terribly responsibly probably woman
Group 3	borough advice nutritious confidential suspicious thorough nuisance parliament privilege secretary	admiration admirable adorable application applicable consideration considerable vegetable committee community	change changeable notice noticeable charge chargeable correspond accompany apparent	payable likeable enjoyable reliable actionable dependable comfortable remarkable understandable immediately	sensible visible visibly possible possibly horrible horribly terrible terribly incredibly	aisle isle farther father guessed guest allowed aloud heard herd