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| **Science**  |
| **Unit Overview** | In this unit the children will explore materials and changing of state by exploring what happens to ice cream on a hot day.  |
| **Prior knowledge**  | Children have learnt about materials and their properties. They can name and sort common materials. Including natural and man-made.  |
| **Development Matters, ELG’s , NC**  | Children begin to predict and conduct fair tests. (ELG) Participate in small group, class and one-to-one discussions, offering their own ideas, using recently introduced vocabulary. (ELG)• Offer explanations for why things might happen, making use of recently introduced vocabulary from stories, nonfiction, rhymes and poems when appropriate. (ELG)• Express their ideas and feelings about their experiences using full sentences, including use of past, present and future tenses and making use of conjunctions, with modelling and support from their teacher (ELG) Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter(DM) Use new vocabulary in different contexts(DM)Use new vocabulary through the day. (DM)• Ask questions to find out more and to check they understand what has been said to them. (DM)Articulate their ideas and thoughts in well-formed sentences.(DM) • Connect one idea or action to another using a range of connectives. (DM) • Describe events in some detail. (DM)• Use talk to help work out problems and organise thinking and activities, and to explain how things work and why they might happen |
| **Unit Title:**  | **Substantive Knowledge-specifics**  | **Disciplinary Knowledge broader skills**  |
| * What happens to my ice cream in the sun?
* How can I stop my ice-cream from melting?
* What is ice cream made from?
 | * Ice cream is a cominbation of materials
* Children can make predictions based on personal and previous experiences.
* Ice cream melts with heat
* The liquid evaporates with heat.
* The other materials (ingredients) sugar and vanilla (etc) remain. This change is permanent (irreverbile) and when re-frozen only the fat (from the milk/cream) sugar and flavouring would remain.
 | * Talk about why things happen: what happens to playdough when it is squeezed? What happens to paint when you add sand etc…
* Describe objects and materials using simple language.
* Group different objects and materials according to specific properties.
* Children begin to predict and conduct fair tests.
* They begin to look at make simple conclusions.
* Record through observation
* Describe what they see, hear and feel while they are outside.
* Begin to make predictions
* Establish that we only change one variable.
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| **Vocabulary** | **Trips/ Visits/Useful Websites/ Resources** | **Key Misconceptions:** |
| **Substantive:****Melting** **Materials****Change****State****Heat****Temperature****Sun****Weather****Frozen****Cold****Evaporation** **Reaction /change** **Irreversiable /permanent** **Liquid** **Disappears** **Evaporates** **Disciplinary:****Fair test** **Observe****Measure**  | * Trip to formby seaside
* [Freezing and Melting Video Lesson | Early Years Topics (twinkl.co.uk)](https://www.twinkl.co.uk/resource/early-years-topic-lesson-freezing-and-melting-video-t-tp-2660932)
 | * Ice cream is a natural material and just exists as an individual material.
* The sun makes things melt unrelated to heat/temperature
* Once ice cream melts is disappears.
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