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| **Science** |
| **Unit Overview** | Materials and their properties  |
| **Development Matters and ELG’s** | * Explore the natural world around them, making observations and drawing pictures of animals and plants (ELG)
* Know some similarities and differences between the natural world around them and contrasting environments, drawing on their experiences and what has been read in class. (ELG) Understand some important processes and changes in the natural world around them (ELG)
* Recognise some environments that are different to the one in which they live (ELG)
* Understand some important processes and changes in the natural world around them, including changing states of matter (ELG)
* Use a range of small tools, including scissors, paintbrushes and cutlery.

• Begin to show accuracy and care when drawing* Know some similarities and differences between the natural world around them and contrasting environments, drawing on their experiences and what has been read in class.

• Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter.* Work and play cooperatively and take turns with others
* Participate in small group, class and one-to-one discussions, offering their own ideas, using recently introduced vocabulary.

• Offer explanations for why things might happen, making use of recently introduced vocabulary from stories, nonfiction, rhymes and poems when appropriate. • 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. |
| **Unit Title:**  | **Substantive Knowledge-specifics**  | **Disciplinary Knowledge broader skills**  |
| Key Questions:What is a materil and what is an object? What properties do materials have? Which material is the strongest and why do you think that-how do you know? How can we test?Which materials are used to build houses and why?Which construction will hold the most weight? What will stop the Big Bad Wolf from blowing it down?  | * Children will be able to name a range of different objects, their material and their basic features/properties.
* Children will be able to make simple predictions
* Children will recognise which materials are used to build houses and explain why.
* Children will begin to recognise which materials occur naturally.
 | * They classify objects according to a criteria

• 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.
* They classify objects according to a criteria
* Describe what they see, hear and feel while they are outside.
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| **Vocabulary** | **Trips/ Visits/Useful Websites/ Resources** | **Key Misconceptions:** |
| **Substantive:**Hard, soft, smooth, course, rigid, firm, solid, brick, plastic, paper, card, concrete, glass,wood, rock, flexible, rigid, bendy, straw, sticks, hay, back , material **Disciplinary:**Fair testConclusionPredict/hypothesiseTry outPractise Experiment AccurateTrue | * Fairytale- the 3 little pigs building homes.
 | * All houses are built of brick.
* Everyone lives in house.
* Boxes are good materials to build toy houses.
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