|  |  |  |  |
| --- | --- | --- | --- |
| **Resources** | **How is it organised and why** | **Link to EYFS / Research / C of EL** | **Adult Role** |
| **Inspiration**   * Pictures of maps, blueprints, interesting buildings, buildings that the children are interested in, etc. * Non-fiction books about design, architecture and construction * Map of the world   **Open ended building materials**   * Sticks * Driftwood * Fabric pieces * Balsa wood * Cardboard tubes * Large buttons * Stones, pebbles, shells * Astroturf pieces   **Tools for measuring**   * Measuring tape * Rulers * Spirit level   **Planning and designing**   * IPad * Labels * Clip boards * Pencils * Graph paper * Safety goggles * Hi-vis jackets   **Construction Resources**   * Lego, mobile and other construction type materials * Wooden fences/ farmyard resources * Train set pieces and trains * Wooden car park * Range of Vehicles | Spacious, light filled area with plenty  of floor space   * Open ended construction materials placed in labelled containers- balsa wood etc. * Safety goggles hanging up on hooks * Tools pictured in labelled containers, * Clipboards and pencils located within easy reach * Lego and other construction materials placed on open shelves in labelled containers. * An area designated for “work in progress” with children encouraged to care for ongoing projects. * Inspiration and reference materials placed on a shelf/ on the wall so children can extend their investigations/creation | * Open ended materials provide many possibilities linked to EAD * Tools for measuring linked to Maths * Choosing materials to build and construct linked to PSE * Using different sized material and holding them in place linked to PD * Using construction resources like Lego require hand muscle strength linked to PD * Children respect other constructions through the protected “work in progress area” linked to PSE * Working in close proximity to others, respecting their space linked to PD and PSE * Planning creations linked to Maths * Working on large scale construction with others linked to PD * Using tools safely and appropriately linked to PSE and PD * Feeling confident in one’s ability to work on something with a purpose in mind linked to PSE, PD, * Engineering practices- making constructions stable linked to Maths and UW * Designing structures linked to Maths and UW * Making comparisons linked to Maths * Investigating inclines and declines, how things work linked to UW * Representing their lived experiences through constructing linked to PSE * Using story books and reference materials of buildings around the world linked to UW and Literacy * Talking through their ideas linked to CL * Drawing up ideas linked to Literacy * Talking through the process linked to CL * Explaining their product or outcome linked to PSE * Using technology as a way to communicate their construction linked to UW and PSE * Recognise environmental print linked to Literacy * Finding creative solutions to challenges linked to CEL | * Focus on children's dispositions of learning i.e. observe the way children approach their learning (characteristics of effective learning) * Listen and observe how children interact with the environment, the materials and others (peers). * Allow children the joy of experiencing materials/ resources for the first time. * Use what you see and hear to reflect with children to clarify ideas. * View oneself as a co-learner, a knowledgeable other. * Relaunch materials in a provoking way that targets deep learning, stimulating neural pathways * Support children with the design process, for example, encouraging children to draw lines on a cardboard box before cutting and so on * Introduce new techniques to children with purpose rather than novelty * Encourage children to discover and problem solve through drawing on reference books and so on * Be there for children to help clarify their thinking/designs * Foster resilience in children by reflecting together when they are faced design/construction challenge * Create collaborative "critical" spaces by encouraging children to provide feedback on peers constructions * Model “thinking out loud” investigative language… * *I wonder…* * *I think…* * *It could be…* * *Maybe if I…* * *How did you think of that?* * *What makes you think that?* * *I didn’t think of it in that way, could you explain your idea further?* * *That has got me thinking…* * Some of the key vocabulary may include: * *Create* * *Design* * *Decision* * *Choice* * *Structure* * *Stable* * *Hold/ squeeze* * *Direction (Up/down/above)* * *In/out* |