Kids Lab 4 Sustainability



Building a Pizza Oven	
1	Overall aims: • Explore the concept of combustion • -Make predictions • -Strengthen fine motor skills •Develop fire skills • -Deepen understanding of the science of cooking
2	Vocabulary - keywords Combustion, chemical reaction, fuel, oxygen, smoke, heat conductor, passive heat, terracotta,
3	 Systems thinking Anticipatory competency Normative competency: Strategic competency: Collaboration Critical thinking Self-awareness
4	 Pillars of sustainability included Ecological Social Economical
5	STEAM domains Science, Math, Engineering
6	Teaching methodologies/activity outline The teacher employs the NASA best engineering model ASK- children identify the problem, requirements that must be met and constraints that must be considered IMAGINE- children brainstorm solutions and research ideas. They also identify what others have done.



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PLAN- children choose two to three of the best ideas from their brainstormed list and sketch possible designs, ultimately choosing a single design to prototype CREATE - children build a working model, or prototype that aligns with design requirements and is within design constraints. TEST children evaluate the solution through testing, they collect and analyse data; they summarise strengths and weaknesses of their design that were revealed during testing IMPROVE Based on the results of their tests, children make improvements on their design. They also identify changes they will make and justify their revisions At the ASK stage, constraints will depend on the setting and fire by-laws in their region and the materials are limited to two large terracotta pots, several red bricks and a metal grille 7 **Expected learning outcomes** The child will be able to: assist in building a pizza oven • -assist in building a fire -assist in the preparation of a pizza -understand the basics of fire safety explain the concept of combustion -understand the concept of renewable fuel -understand the difference between Greenwood and dead wood learn from mistakes 8 Assessment Find teachable moments throughout routines to reinforce concepts. Encourage children to keep their eye out for kindling and firewood throughout play. Ask children "what else could we cook in our "oven"? 9 Equipment and materials to be used in learning unit (tools, ingredients etc) Wood, Flint, tinder, water, watering cans, two terracotta pots, several red bricks, metal oven or bbg grille, pizza ingredients



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