


A-Frame level

1	Overall aims: <ul style="list-style-type: none"> • -Explore the concept of gravity • -Explore the concept of level ground and slopes • -Develop mathematical skills • -Develop measuring skills • -Make predictions • -Strengthen fine motor skills
2	Vocabulary - keywords Triangle, A Frame, weight, level
3	Sustainable abilities developed <ul style="list-style-type: none"> • Systems thinking • Anticipatory competency • Strategic competency: • Collaboration
4	Pillars of sustainability included <ul style="list-style-type: none"> • Ecological • Economical
5	STEAM domains Science, Technology, Math
6	Teaching methodologies/activity outline The teacher explains that they need to build an A frame level in order to determine where level ground and slopes are situated in the garden. The teacher employs the NASA best engineering model ASK- children identify the problem, requirements that must be met and constraints that must be considered



	<p>IMAGINE- children brainstorm solutions and research ideas. They also identify what others have done.</p> <p>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</p> <p>CREATE - children build a working model, or prototype that aligns with design requirements and is within design constraints.</p> <p>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</p> <p>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</p> <p>At the ASK stage, constraints including using materials from the garden and setting</p>
7	<p>Expected learning outcomes</p> <p>The child will be able to:</p> <ul style="list-style-type: none"> • Explain what an A frame level does • Find materials to build the A Frame level • Use the Level Aframe to measure
8	<p>Assessment</p> <p>Find teachable moments throughout routines to reinforce concepts. Encourage children to build more level a frames and use them to measure slopes.</p>
9	<p>Equipment and materials to be used in learning unit (tools, ingredients etc)</p> <p>3 sticks of equal measure, twine, a stone</p>
10	<p>Kind of setting - lab, kitchen, outdoor etc.</p> <p>outdoors, garden</p>
11	<p>References - source:</p> <p> Permaculture Making and Using an 'A-Frame'</p>

