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| **Experimentation** | A full-scale working model used to test a design concept by making actual observations and necessary adjustments. |
| **Exponentially** | Systematic, scientific, documented study. |
| **Investigate** | The feel, appearance, or consistency of a surface, substance, or fabric. |
| **Model** | A method for collecting data. |
| **Modify** | Extremely rapid increase. |
| **Optimize** | To observe or study by close examination and systematic inquiry. |
| **Problem Solving** | The act of trying out a new procedure, idea, or activity. |
| **Process** | A visual, mathematical, or three-dimensional representation in detail of an object or design, often smaller than the original. A model is often used to test ideas, make changes to a design, and to learn more about what would happen to a similar, real object. |
| **Prototype** | Formation of mental visual images. |
| **Requirements** | Human activities used to create, invent, design, transform, produce, control, maintain, and use products or systems; a sequence of actions that combines resources to produce an output. |
| **Research** | An exchange of one thing in return for another; especially relinquishment of one benefit or advantage for another regarded as more desirable. |
| **Specification** | The process of understanding a problem, devising a plan, carrying out the plan, and evaluating the plan in order to solve a problem or meet a need or want. |
| **Testing** | The parameters placed on the development of a product or system. The requirements include the safety needs, the physical laws that will limit the development of an idea, the available resources, the cultural norms, and the use of criteria and constraints. |
| **Texture** | An act, process, or methodology used to make a design or system as effective or functional as possible within the given criteria and constraints. |
| **Trade-off** | Change to ensure accuracy. |
| **Visualization** | A detailed description of the design and materials used to make something. |