3D Design & Printing Rubrics

	Beginning	Developing	Proficient	Mastery
Empathize	Asks the user provided questions and records responses.	Suggests and asks questions of the user and records responses.	Makes observations and asks questions to gain insights into user needs.	Uses observations, questioning and other methods to gain insights into user needs that they hadn't previously considered.
Define	Shares information about the user without identifying a problem.	Suggests problems that the user may have.	Clearly articulates a problem the user needs solved.	Clearly articulates a user need by forming an actionable problem statement.
Ideate	Explains an idea suggested by someone else.	Suggests an idea for solving the problem.	Generates at least 5 possible ideas including some original ideas for solving the problem.	Generates at least 10 creative, original and innovative ideas for solving the problem.
Prototype	Creates a model.	Creates a model related to the problem.	Produces a model or prototype that represents a proposed solution.	Produces a working model or prototype that can be used to fully test the proposed solution.
Test	Shows the user their model.	Asks the user what they think of their model.	Tests prototype and seeks feedback from user.	Designs tests to determine how well specific aspects of the solution meets user needs.
Collaboration	Completes tasks with direction that contribute towards the group solving the problem.	Completes task to contribute towards the group solving the problem.	Works collaboratively with a group to solve the problem.	Acts as a leader in a group to collaboratively solve the problem.

MAKERS EMPIRE

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