

NASA Design Process	NGSS	Design Squad (PBS Kids)
<b><u>Ask:</u></b> Students identify the problem, constraints and limits for the problem.	<b><u>Define Problem:</u></b> Students are identifying the problem to be solved and identifying the criteria to be successful, the constraints and limits.	<b><u>Identify the Problem:</u></b> Students develop an understanding of the expectations for the problem.
<b><u>Imagine:</u></b> Brainstorm ideas. Conduct research to see what others have already did.	<b><u>Design Solutions:</u></b> Students are generating a number of solutions then evaluating them to see which best meets the criteria	<b><u>Brainstorm:</u></b> Students develop as many possible solutions to the problem.
<b><u>Plan:</u></b> Choose best idea to develop a sketch and prototype	<b><u>Optimize Solutions:</u></b> Students test the final product and make changes to improve the design.	<b><u>Design:</u></b> Students pick the best solution and develop a plan to build.
<b><u>Create:</u></b> Students build their model aligned with the criteria and constraints.		<b><u>Build, Test, Evaluate and Redesign:</u></b> Students build their design, test to see how well it works and then makes changes to make the design better.
<b><u>Test:</u></b> Students will evaluate their prototype through tests and evaluate the data collected.		<b><u>Share:</u></b> Students share their final project with others.
<b><u>Improve:</u></b> Based on the results of the tests, students make changes to improve their model.		

**Similarities:**

- All three models has students developing an understanding of the problem and identifying the criteria and constants.
- All three have students developing a solution that they created followed by testing and reevaluating to make the product better.
- All three emphasised that the model is not a linear process and the steps can be done in any order.

**Differences:**

- The design squad has students sharing their work with others. A large emphasis on collaboration and communication.
- Research was emphasised only in the NASA design process.