Title of My Health and Biomedical Science Project

Students names

Teacher name

School Name

This is a template that may need to be altered to fit the needs of your school or project needs and specifics. I recommend the teacher use this as part of the group's class grade to help show the progress as the team makes updates and iterations.

Dates to Remember

Preliminary Design Review	October- November
Critical Design Review	End of January- beginning of March
Final Design Review at Johnson Space Center	middle of April

Define the Problem you are trying to solve

- This should be your first step that is completed as soon as you have chosen a project. Most of this will be in the HUNCH project description but there may be other research you need to do to understand the environment of the Space Station, the Moon or other locations.

Research

- This should be started the first week of your project and will be continually updated as you work on your project.
- Are there existing commercial products that can satisfy the needs of the product? Are there good ideas that may need alteration?
- List where you found valuable information related to the problem and how you might solve it.
- Describe the main ideas that are important from the research
- Show pictures of what you are thinking about.

Brainstorm and Generate Ideas

- This should be started the first week of your project and will be completed by the second week.
- Attach photos of the sketches and list ideas each of the students suggested for solving the problem. This may take more than one page.

Identify criteria and specify constraints

- This should be started the first week of your project and may be updated as you work on your project and as you learn more while working.

- Criteria---this is what we need
- Constraints---these are problems we have to avoid

Develop and Propose designs and Choose among Alternative solutions

- This should be completed by the 3rd week of your project.
- Analyze the strongest ideas by listing out their pros and cons on this page. Choose one for your final product.

Implementing the proposed solution

- This should be started in the 3rd week. Depending on the complexity of your project you should be finished within the next week or two.
- Draw up your design in 3-D CAD or in sketches and apply all the specifications.
- Paste a drawing of your detailed CAD file or sketches onto the page with labels of the relevant parts so other people will understand what is important.

Make a model or prototype

- This should be started the 4th or 5th week. Your first prototype should be completed by the 6th or 7th week.
- Using paper, cardboard, cloth, wood, metal, plastic, 3D printing—make a model or prototype of your detailed drawing.
- Attach a picture of your prototype.

Test and Evaluate the solution and its consequences

- This should be completed once your prototype is completed and you have spent a day evaluating and trying out your prototype.
- Check all the requirements and limitations to see if you have met them all.
- List any that you did not meet.
- List any other problems you have found that could be fixed.
- What attributes did you like best.
- Include a picture of your prototype if it helps you describe the improvements you want to make

Refine the design

- This should be completed within the week after completing your prototype.
- Update your 3-D CAD drawing or sketches to reflect the improvements you need.
- You may find that you repeat this page several times depending on the complexity of your project. Testing your project to make it operate well will mean that you find problems that need to be fixed so it works the way you want. The little details are what makes your product stand out so that people want your design over another.

Build the final Design

- Attach 3 photos or more of your final design from different angles showing and labeling all the important aspects. Use multiple pages if needed.

Communicate the Process and Results

- This page should be started in the 3rd week as you draw up your project in 3D. Your development of the object may be influenced by how you use it. This will be updated as you make improvement on your project.
- Summarize the processes and provide complete and accurate drawings of your final design. Label all the parts in your drawing so it is easy for someone else not familiar with the project will understand your discussion on the project.
- Provide instructions on its operation or its use. Although it is obvious to you, not everyone will know how to use it.