**Journal 1 Grade 3S**

**1- Due to the pandemic the world has faced in the last two years you have only participated in two Capstones. How has this shortcoming affected you, and what plan do you have to compensate for this? \***

Personal Reflection/Team Collaboration

**2- Alternative Energy is among the crucial Egypt’s grand challenges. In accordance with the Egypt 2030 vision, the dependence on alternative energies is a must to handle to the great demand on energy and to achieve breakthrough developments in other challenges. Give examples of TWO other grand challenges that are related to addressing the energy challenge. Explain how these two challenges will be positively affected due to increasing the utilization on alternative energies. \***

Using the Engineering Design Process (EDP)

**Journal 2 Grade 3S**

**1- Through the previous capstones you have been gaining experience by working at different roles and responsibilities. Working in a team requires utilizing the best potentials of each member. Describe one skill that you possess that is related to your experience and potential. Explain the best Capstone team role which matches this skill. \***

Personal Reflection/Team Collaboration

**2- The design requirements are very important to be specified in capstone project as they are the general characteristics of how a successful project should be. Describe two design requirements of your capstone project and explain why they are important. \***

Using the Engineering Design Process (EDP)

**Journal 3 Grade 3S**

**1- This is your last capstone project. These capstone projects have helped you develop your personality, and you have learned a lot. Select one positive attitude in your personality that improved from working in capstone projects and one negative attitude that you modified to be positive. Describe how you modified your negative attitude to make it positive. \***

Personal Reflection/Team Collaboration

**2- You should be working on constructing your prototype. There are many considerations to make sure it will work as expected. Specify one measurable criterion you considered while constructing your prototype. How will this criterion contribute to the achievements of your requirements? And how will you measure this criterion? \***

Using the Engineering Design Process (EDP)

**Journal 4 Grade 3S**

**1- At the end of your capstones and working as a team member, you are preparing to move on to university where you will again work on project teams. What personal skill have you learned through teamwork at your STEM school that you will take with you to your university teams, and how will it make your teams better? \***

Personal Reflection/Team Collaboration

**2- "One of the most important steps in Engineering Design Process is communication. The poster is one of its methods along with your oral presentation. Describe the properties of an excellent graph or chart containing your data that makes it understandable to the reader without the rest of the poster." \***

Using the Engineering Design Process (EDP)

**Journal 5 Grade 3S**

**1- In your capstone, you faced a problem which benefits from going on a field trip, but unfortunately the school didn't give you permission. What is an alternative plan you will have to overcome this situation and how will your project still benefit? \***

Personal Reflection/Team Collaboration

**2- Your poster is an important part of communicating your project according to the EDP. It will be important to do this well in university. Explain one difference between the abstract and introduction and why this difference is important. \***

Using the Engineering Design Process (EDP)