



## Greenville Engineering Academy Supplemental Application Materials

Thank you for applying to the Engineering Academy! Participation in the Engineering Academy is a big commitment that requires about 80 hours each year for 3 years. We are looking for students who are persistent, responsible, have an interest in and/or an inclination towards engineering, and have done well in appropriate math and science courses. To help us determine if this is you, we will ask you to submit the following materials as part of the online application:

1. We want to know how you are doing in school, especially in math and science classes, so we will ask you to **upload to the application an electronic copy of your transcript or grade report**. An unofficial transcript or grade report is acceptable. If you need help getting your transcript or grade report, please see your guidance counselor. If you are submitting this application prior to getting your final grades from the 2021-2022 school year, we will ask you to submit final grades for us when we are reviewing your application.
2. We want to know if an adult in your life thinks you will be a good fit for the Engineering Academy. **Find an adult to serve as your reference for the program and ask them to complete [this form](#)**. Once you receive the form back, upload it to your online application. Here are some ideas of adults who could serve as a reference for you: teacher, school counselor, mentor, coach, employer, or another adult who can tell us more about you. Your family members may **not** serve as your reference. *Submitting a reference form is optional for the completion of your application, but we highly encourage you to submit the form as it will help us get to know you better.*
3. We want to know more about your interests, thoughts, and plans. **As part of the application, you will be asked to respond to two prompts**. For the second prompt, you will have 3 options and may choose 1. Both prompts are opportunities for you to share more about yourself with us. There are no wrong answers. You may submit a written response, or you may submit a video of yourself responding to the prompts. Video submission tips are listed under “Application Tips” below. All written responses should be clearly handwritten or typed. If typed, the responses should be double-spaced, Times New Roman 12pt. font, and use standard margins.

**Prompt 1. You must respond to this prompt: What excites you most about engineering or the Engineering Academy, and why? What do you hope to gain from your participation in the program?** Response should be 1-2 pages if written or 2-3 minutes if recorded.

**Prompt 2. Choose one of three options below for a response.** Response should be 1-2 pages if written or 2-3 minutes if recorded.

*Option 1:* Engineers often learn through failure. They ‘fail forward’ and see it as an opportunity to improve. Describe a problem you tried to solve in the past. Talk about the following things in your response:

- What was the problem?
- Why was it an important problem to try and solve?
- How did you solve/try to solve the problem?
- What failures or setbacks did you face and how did you deal with these?

*Option 2:* Engineers try to solve real-world problems with practical solutions that use math and science. Tell us about a problem in your community that you would like to help solve as an engineer. Talk about the following things in your response:

- What is the problem?
- Why do you think this is an important problem to solve?
- How would you try to solve this problem? What possible engineering solutions would you try?

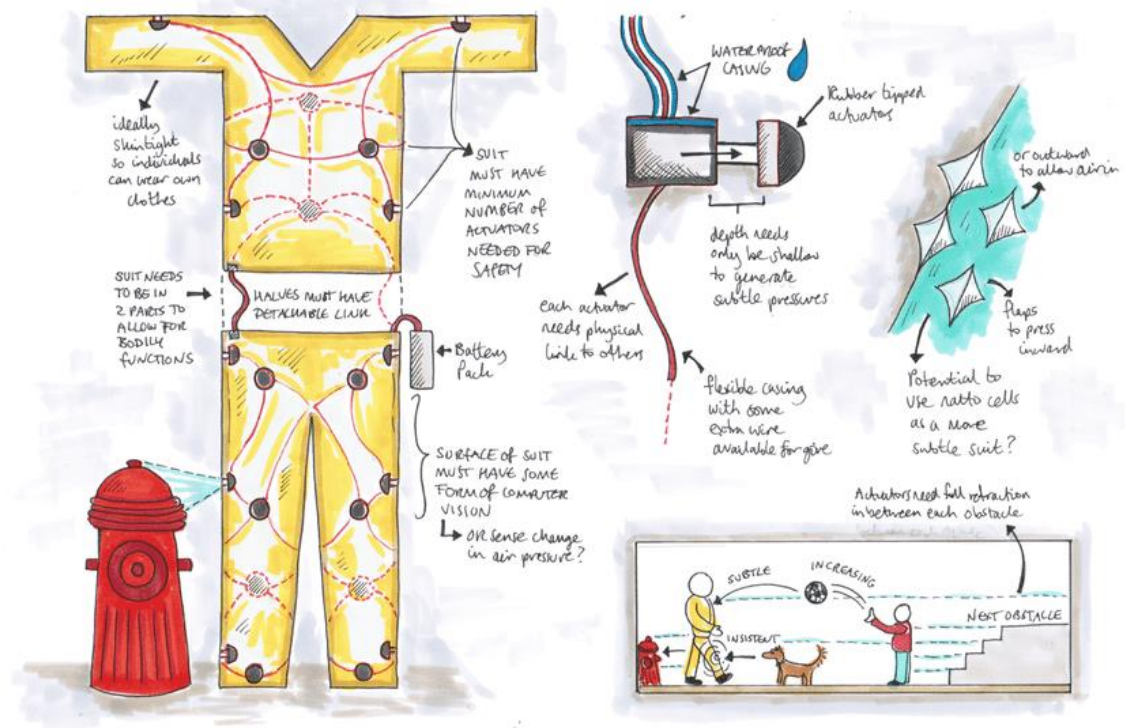




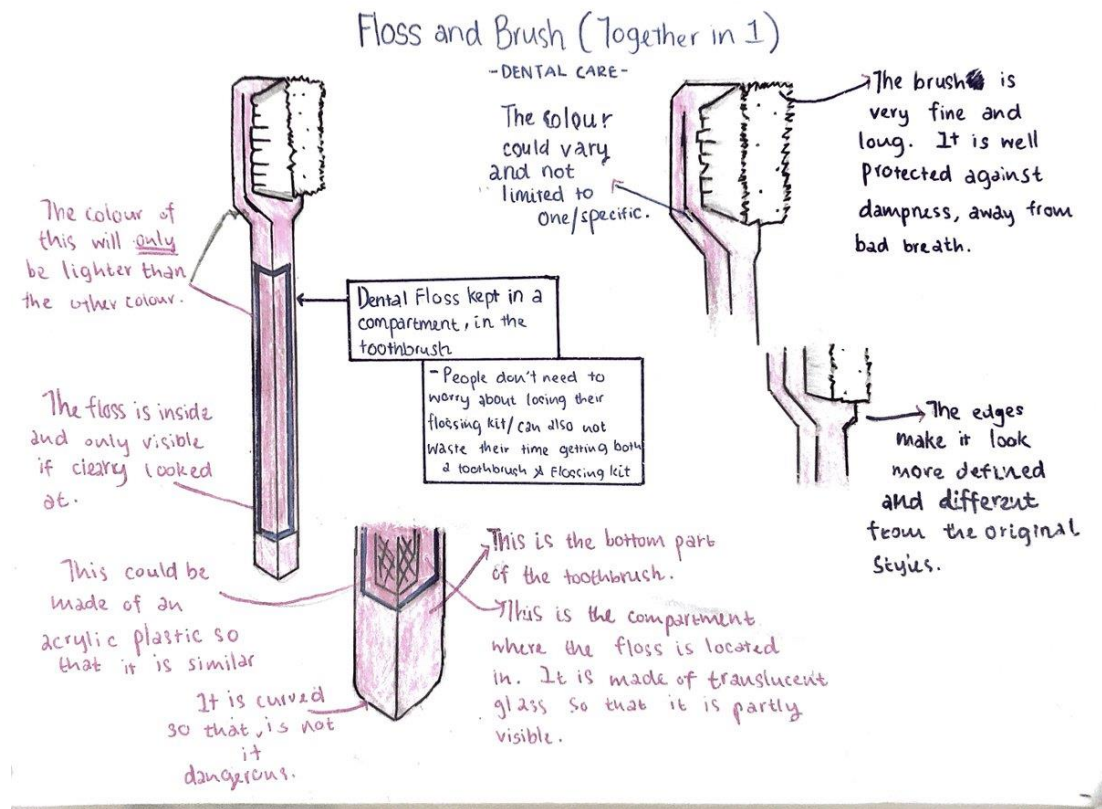
*Option 3:* Whether you need to take food to school, on a day trip or a picnic, having a container to carry it in can be a great help. Your task is to design the perfect lunchbox. Your lunchbox must be easy to carry and must have space for food and drink for at least one person. Here are some questions to get you thinking:

- What shape should your lunchbox be?
- How big should it be?
- How strong and/or light should it be?
- Will it keep your food and drink hot or cold? If so, how?

Tell us about your design for the perfect lunchbox by submitting one or more annotated sketches. An annotated sketch is a drawing of your design where you also describe and explain what it is, how it will work, and what it will be made of using labels and short blocks of text (see the example below). Be sure to also explain what shape you chose and why and what makes your lunchbox different from other lunchboxes you have seen before? If you like, you can record a video of yourself presenting your design and annotated sketch(s) or maybe even a prototype of your design.



An annotated sketch of a wearable safety suit for the blind by Miriam Sturdee  
[https://www.researchgate.net/figure/Annotated-sketch-and-ideation-around-theme-of-wearable-safety-suits-for-the-blind\\_fig20\\_323993556](https://www.researchgate.net/figure/Annotated-sketch-and-ideation-around-theme-of-wearable-safety-suits-for-the-blind_fig20_323993556)



An annotated sketch for a 2-in-1 brush and floss toothbrush by Mr G  
[https://twitter.com/mrcg\\_dt/status/1323069412589514757](https://twitter.com/mrcg_dt/status/1323069412589514757)

## Application Tips

- Submit all documentation requested including the high school transcript, response to the two prompts, and completed reference form. (Completed reference form is optional, but highly encouraged).
- Properly review the instructions for both prompts. Ensure that you answer the entire prompt by responding to all parts of that question and meet the length specification.
- If you decided to submit a video, it is important to check that the video is complete. Check that the video did not end abruptly while you were talking. While the video must show you speaking, and must have clear video and sound, the production value of the video will not be considered in the review.
- When recording your video remember to choose a quiet location that is free from distractions and loud background noise.
- Steps to submit a video response:
  1. Make sure you set up the correct permissions so that the application reviewers can access your videos.
  2. Then, share a link to the video in the application so the Next Engineers team can view it.
  3. Upload your video to a free video hosting site, such as [YouTube](#) or [Vimeo](#), or upload your file to a free file storage site, such as [Google Drive](#) or [Dropbox](#).
  4. You will provide the link to the video in your application.

