



## Math Performance-Based Pathway Student Checklist

### Student Checklist

Student projects will all be unique and personalized to connect with the High School and Beyond Plan. However, no matter what you will be creating for your project, the following elements must be included in your work:

### Learning Experience Design & Planning

- Did you select a learning experience that has an authentic, real-world problem (aligned to your High School and Beyond Plan)? *Note: Throughout this checklist, the word "problem" is a general term for "a question that needs to be answered, or something that needs to be figured out, addressed, or solved."*
- Did you identify a problem within that learning experience that has enough complexity to be addressed with multiple approaches?
- Did you show that you could break down, analyze, and translate the context of the problem into mathematical representations?
- Did you develop a written plan to address that problem?

### Reflection

- Throughout the process, did you create a reflection (written, oral\*, or video) or set of reflections that show you are able to:
  - (1) make strategic assumptions and approximations to simplify complex problems?
  - (2) decompose complicated quantities into single objects or compositions of several objects?
  - (3) use recognized patterns or structures to make predictions or decisions?
  - (4) recognize calculations or results that repeat and use them mathematically through substitution or other processes?
- At the end of the learning experience, did you produce a reflection (written, oral\*, or video) that explains how you:
  - (1) correctly, efficiently, and strategically used a variety of tools and external mathematics resources to solve the problem?
  - (2) monitored and evaluated your progress, created procedural shortcuts, checked your work using different methods, adjusted your approach, and persevered through challenges?
  - (3) clearly identified which high school mathematics standards you learned and/or created evidence for during your learning experience?



- (4) connected your learning to your preparation for your post high school goals (from your High School and Beyond Plan) - including a self-evaluation of the skills and learning gained?

### **Creation of a Final Product:**

- Does your final product contain some elements (for example, a diagram, two-way table, graph, flowchart, and/or formulas) that demonstrate your ability to identify important quantities and map relationships?
- Did you describe the relationship between quantities, mathematically recognizing patterns, trends, and functions as applicable, and then use them to draw conclusions and make decisions?
- Did you create a written text, oral presentation, or video explanation that uses applicable vocabulary to communicate the following information (along with your final solution):
  - (1) stated assumptions, definitions, and previously established results that frame the problem?
  - (2) arguments and tentative conclusions through a series of logical statements that offer a hypothesis on the solution to the problem, including addressing counter-arguments or examples?
  - (3) description of a problem-solving process that highlights the meaning of symbols chosen, units of measure, precise calculations, patterns and structures within resulting quantities and expressions, and a way to determine if the result is plausible?

### **Proofreading and Attention to Detail:**

- In all of the evidence you plan to submit, have you reviewed your work using multiple methods and checked all solutions for reasonableness within the context of your learning experience?
- Have you used the [Math Performance-Based Graduation Pathways rubric](#) to review, self-assess, and revise the components of your project, or to seek feedback from others?