

Summer Assignment 2019

All Axis STEM students are required to complete the summer assignment

Due: Wednesday, August 14



Overview:

In an effort to push students to work outside the traditional confines of academics, we would like you to start your Axis experience with some creation and innovation. We challenge you to build a functional musical instrument out of everyday (non-musical) objects.

This hands-on summer assignment has many goals. The goal of the creative component is to present a well-designed, functional product that not only performs accurately but also exemplifies your unique design and best work. The goal of the performance component is to both prove your product's functionality and to introduce yourself to the core. You will also complete a writing prompt that documents your innovation process for the instrument and the greater role of innovation in American history.

We are looking forward to seeing your best, most creative work.

Details:

- Create a musical instrument out of household objects that uses a mechanism to produce or modify the instrument's sound. This mechanism must be some moving part that creates or influences the sound.
 - Ex. A piano uses a "mechanism" when the musician pushes the keys which cause hammers to strike strings.
- Bring your functional instrument on the first day of school and be able to perform the song "Happy Birthday to You." You should also be ready to explain how you made it.
- Bring a typed and printed copy of the writing prompt to turn in.

Writing Prompt:

Reading Response

Read closely: [*What Was the Greatest Era for Innovation? A Brief Guided Tour*](#) by Neil Irwin

Respond to the following questions in one paragraph each:

1. Which innovation has made the greatest impact on American life? Explain your thinking in detail.
2. What is a common thread you see in the descriptions of innovation throughout the decades?

Respond to the questions with your own opinions, but be sure to refer to evidence from the article to support your claim.

Evaluation:

- each of the criteria below will be scored as Outstanding, Acceptable, or Poor



Functional self-made instrument	<ul style="list-style-type: none">• Your instrument is made out of non-musical objects repurposing on your part.• Your instrument allows for adequate tonal control, meaning you must be able to play eight different notes on your instrument.• The function of your instrument is the result of a mechanism composed of moving parts that that produces or modifies the instrument's sound.
Writing Prompt	<ul style="list-style-type: none">• Clear written expression• Reference to specific details/evidence• Ability to identify common threads in different case studies/examples/eras
Demonstration of your instrument	<ul style="list-style-type: none">• Bring your instrument and be able to demonstrate how it works• Be able to play "Happy Birthday to You" on your instrument.

Awards will be given for:

- The Most Creative Instrument
- Greatest Tonal Control
- Most Entertaining Performance

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Looking forward to seeing your creations!

Go to www.axisstem.org
for more information.