



June 2022

Dear Class of 2026:

Welcome! We are so pleased that you have decided to join us. This year will be full of challenges and fun.

Your first challenge as a Tech Valley High School freshman is to nominate an **emerging technology** as the **Coolest On The Planet**. You'll do this by first exploring some fascinating emerging technologies that are being developed in our own **Tech Valley**, a region that stretches along the Hudson River almost the entire distance between New York City and the Canadian border. Then you'll broaden your search to other emerging technologies in other parts of the world.



What do we mean by **emerging technologies**? We're talking about innovative technologies that address the most pressing issues facing our planet today. The emerging technologies in the Tech Valley region often sound like science fiction, but they are real.

In order to meet your challenge, you will need to do some research. Below, we've included links to articles and videos that present several of the technologies in our region that we think are pretty cool. Explore these resources and see what you think.

But Tech Valley is not the entire planet, so you'll need to look further. Try Googling the technology categories below. What other cool **emerging technologies** can you find?

When you find the tech that is worthy of your nomination (it might actually be one of the ones in our region), then write a **one-page letter** to your peers, nominating the technology as the coolest. Include a complete explanation of your technology, the criteria you used in your selection, and persuasive evidence that supports your claim of *coolest*. Print out or copy the source you used to discover your technology. Bring your letter and source with you on the first day of school and be prepared to pitch your technology to your classmates.

Included in this packet is an optional graphic organizer you can use to record and organize your research, and a sample outline for your letter. Good luck. We can't wait to hear what you have to say!

Sincerely,
The Tech Valley High School Community

P.S. This assignment is also posted as a link on our school website, www.techvalleyhigh.org.

Emerging Technologies in the Tech Valley Region

Category	Link
Energy Storage	<u>First there was nano, now there's batteries</u>
Biotech	<u>BioHarvest Relocates from Israel to Albany</u>
Nanotech	<u>An Inside Look at CNSE</u>
Information Tech	<u>The Brain Does the Writing</u>
Advanced Materials	<u>Are Mushrooms the New Plastic?</u>
Augmented Reality / Virtual Reality	<u>What's the difference between VR, AR and MR?</u> <u>The Best VR Apps in 2019</u>
Artificial Intelligence (AI)	<u>IBM Center</u>
Transportation	<u>The Science of Self Driving Cars</u>
Food and Sustainability	<u>Dairy company uses AI to analyze milk quality without the use of chemicals</u>
Space	<u>18 Wild Space Tech Ideas NASA Is Looking At</u>

RUBRIC

Essential Question: What is the coolest emerging technology on the planet today?

Product: Nomination Letter answering the essential question

CRITERIA	DEVELOPING (Below performance standards)	PROFICIENT (Meets Criteria)	MASTERY (Exceeds Criteria)
<p>Agency & Self Direction</p> <p>This grade reflects a student's Growth Mindset and Ownership of Learning.</p>	<ul style="list-style-type: none"> Student does not answer the essential question in the nomination letter. Work is not completed before the first day of school (September 8, 2021) 	<ul style="list-style-type: none"> Nomination letter answers the essential question. Work is complete and brought in for the first day of school (September 8, 2021) 	<p>In addition to developing,</p> <ul style="list-style-type: none"> The nomination letter reflects thorough research from the sources provided <i>and</i> from sources found by the student.
<p>Communication</p> <p>This grade reflects a student's ability to express ideas and views effectively, in written form, and to convey ideas with reason, confidence and purpose to a target audience.</p>	<ul style="list-style-type: none"> Nomination letter is not clear about which tech is coolest. Nomination letter is not clear about the criteria for "coolness". There is some evidence given to support your choice for "coolest". Written work contains many spelling and mechanical errors. 	<ul style="list-style-type: none"> Nomination letter clearly states which tech is coolest. Nomination letter clearly explains criteria for "coolness". There is plenty of evidence to support your choice for "coolest". Some errors in spelling and mechanics are apparent, but they do not prevent the reader's understanding. 	<p>In addition to proficient,</p> <ul style="list-style-type: none"> Work is neat, professional looking and a pleasure to read. No errors in spelling / mechanics

OPTIONAL: Complete this graphic organizer to help you write your letter.

Identify 3 different emerging technologies and hyperlink the article	What exactly is the emerging technology described in the resource?	What three things make this emerging technology “cool”?
Which technology did you select as the coolest? What makes it cooler than the others?		

USE THIS OUTLINE FOR YOUR NOMINATION LETTER:

Paragraph 1: Introduction

- 1. What is meant by *emerging technology*?**
- 2. Which technology am I nominating?**

Paragraph 2: What makes a technology “cool”?

- 1. The criteria I used to make my choice**
- 2. The technologies I considered before settling on my “coolest”**
- 3. Why did they not make the cut**

Paragraph 3: The Coolest Tech

- 1. What makes my choice the coolest**
- 2. The three most convincing reasons for my choice**

Paragraph 4: Closing

- 1. Why you should agree with my choice**
- 2. One last thought I’d like to leave you with . . .**