Name(s)_____ Period _____ Date _____

Activity Guide - Computing Innovations

Innovation Research

Choose one of the following topics, and research the latest innovations in computing hardware. The goal here is to find the **most recent** innovative computing devices within your chosen topic. Keep an eye out in particular for devices that don't *look* like what you might expect a computer to be.

Topics (check the one you've selected)

- ❏ **Wearable Technology** (eg. clothing, jewelry, or accessories with built-in computers)
- ❏ **Health and Safety** (eg. devices that treat disease, track your health, or protect users from danger)
- ❏ **Agriculture** (eg. technology to improve the effectiveness, sustainability, or efficiency of farming)
- ❏ **Manufacturing** (eg. advancements in rapid prototyping, industrial robotics, and the production of goods)
- ❏ **Art and Design** (eg. interactive art or public installations)
- ❏ **Smart Home** (eg. devices that allow you to interact with your thermostat, locks, or lights using computers)

Researching your Topic

With your chosen topic as guidance, go online to research recent innovative computing devices within that topic. Try to find a product that you think is both innovative (in that it's attempting to solve a new problem, or an old problem in a new way) and personally interesting. As you do your research, consider checking out some of the crowdfunding sites (such as Kickstarter or Indiegogo) to find products that haven't even been released yet!

Use the space below to record notes about interesting products you find, patterns that you're seeing, or problems within your chosen topic that people are trying to address.

Research Notes

An Innovative Solution

Based on the research your group did on the last page, select **one** of the devices you found to focus on. Answer the following questions for your chosen device.

You may need to head back online to gather more details about your chosen device.

What Problem Does it Solve?

This is probably the main sales pitch of the product - why do the creators think this is useful?

What Is Innovative About It?

What makes this device different or better than other solutions out there?

How Do You Interact With It?

Focusing on the Input and Output elements of our model for a computer, how does this device take input from the user, and how does it display output? Try to be as specific as possible.

How Could You Improve It?

What are some changes that could make this device better? Are there common complaints, or clear issues that you might be able to address?