BCS 20-21

MAKERS SPACE

MANDY FIECHTNER

Maker's space is a class that encourages and facilitates hand's-on creative, critical and curious thinking, experimenting, and learning. The focus is to develop a maker's mindset by allowing students to self direct the exploration of a variety of scientific, artistic, technological and mechanical mediums.

"Maker-centered learning offers opportunities to learn about new tools and technologies, but more than that, it fosters important thinking skills—such as adaptability, collaborative thinking, risk-taking, and multiple-perspective taking—that are critical to thriving in a complex world."

-**DANIEL WILSON** DIRECTOR OF PROJECT ZERO, HARVARD GRADUATE SCHOOL OF EDUCATION

CLASS EXPECTATIONS

RESPECT: YOURSELF, OTHERS, MATERIALS, AND THE CLASSROOM

Be devoted to one another in love. Honor one another above yourselves. -Romans 12:10

STUDENT EXPECTATIONS

Have an open mind and a spirit of learning and experimenting. Enjoy the creative process. Be your best self; create, design, and learn something you are proud of. Keep thorough documentation, be accountable. Be on time & use your phones responsibly.

TEACHER EXPECTATIONS

I will facilitate a class where learning and exploring take precedent over "products". I will push you to learn new and challenging processes and skills. I will strive to find the right balance between grace and accountability and model God's love.

"MAKER THINKING" IS ABOUT...

EXPLORING

- What do I want to learn?
- What is a skill I feel could be useful in the future?
- What is something I am curious about?
- What interests do I have?
- What are some areas where I want to be challenged?

LEARNING

- Who already has knowledge of this tool or skill?
- Who can I ask, email, shadow, or consult?
- Who has information online that I can use?
- Who can give me feedback or partner with me?

TRYING

- How do you use a certain tool?
- How does basic vs. intermediate vs. advanced skill change the end product?
- How does something work?
- How is this thing put together?
- How else can this piece be used or powered?

PLANNING

- What do I want to accomplish?
- Who's help do I need?
- What materials and tools do I need to accomplish my goal?
- How do I want to keep myself accountable?
- How long will it take?

DOING

- What is my plan of attack?
- How do I adjust when something doesn't go as planned?
- What can I do differently when I hit a road block?
- When do I change gears vs. push through to my goal?

GRADES

100% of your grade is based on participation in "MAKER THINKING", which will be shown through an ongoing log and submitted for review each Monday. Your objective is to engage in this type of thinking and doing each block period and keep thorough evidence. Any products you create or items you fix or tinker into something new are just an added bonus. Learning a new way of thinking, planning, and executing tangible ideas is the main objective.

-Students will receive 30 points each week based upon the evidence shown in your work log.
10 points for each hour, 3 hours per week of class time
Hours will vary for online learning adaptations and shortened weeks.
-Approximately 45 hours over the whole semester 450 points
-Missed class should be made up by completing the corresponding hours
-Points will be lost for excessive phone use, improper or no clean up, unexcused absences, & misuse of class time, equipment, and/or materials

REFERENCES

https://www.gse.harvard.edu/ppe/program/thinking-and-learning