

CTE STEAM Lab: 3d Design & Modeling Syllabus

You can access all of the lessons, slides, videos and help at DM.mreaton.com.

Table of Contents

[Course Description](#)

[Objectives](#)

[Overview](#)

[Technology](#)

[.Net Account](#)

[Classroom Behavior](#)

[Grading](#)

[Participation](#)

[Classwork](#)

[Design Challenges](#)

[Homework and After School STEAM Lab](#)

[Late or Making up Assignments](#)

[Extra Credit Typing](#)

[Absences, Tardies and Bathroom Passes](#)

[Policy on Academic Dishonesty](#)

[Classroom Procedures](#)

[Entering the classroom before class starts](#)

[Leaving the classroom after class](#)

[ParentSquare](#)

STEAM Lab: 3d Design & Modeling



Course Description

3d Design & Modeling (DM) provides students opportunities to apply the design process to creatively solve problems. Students will learn perspective, isometric, and multi-view sketching as methods for communicating design ideas effectively without the use of technology, learn conversions between two measurement systems and apply measurement skills while dimensioning sketches, and conduct a mechanical dissection to better understand how objects and parts interact. Students work in teams to identify design requirements, research the topic, and engage stakeholders. Students will use 3D modeling software to create a virtual image of their designs and produce a portfolio to showcase their creative solutions. Students will use 3D Printer to model solutions of real world problems.

Objectives

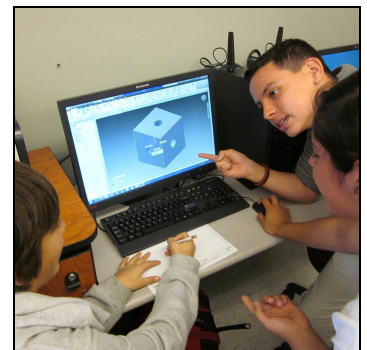
By the end of this course students will be able to use the design process to solve a variety of design challenges.

Overview

- Unit 1: 3d Modeling & Printing
- Unit 2: 3d Print Store
- Unit 3: Design Challenges

Technology

As technology becomes a part of our society, technology must be implemented in education. Students are expected to use technology to complete many activities. Students will have the ability to come before school, and after school to work in the computer lab. Although projects and use of websites can be done at home. The technology used is considered a district property; appropriate behavior and academic language must be used at all times.



.Net Account

Each student in Garden Grove Unified School District has a Google account with @ggusd.net domain. Students are required to access the many websites using their .Net Account, including: Google Workspace ([Drive](#), [Docs](#), [Slides](#), [Spreadsheets](#), [Sites](#)), [Google Classroom](#), [Seesaw](#) and [Mr. Eaton's .Net Website](#).

Classroom Behavior

All Students will abide by the following guidelines of correct classroom behavior:

1. Treat everyone how they would like to be treated, be respectful to all.
2. Once the beginning bell has rung, students are quietly waiting for instructions from Mr. Eaton.
3. Be prepared and organized.
4. Always ask questions, curiosity increases knowledge.
5. School Policy is: ALL electronic devices are turned off (or on silent mode) and stored in backpacks during class. Do not have electronics out on the desk or distracting students. Devices will be taken away and given back at the end of the day.

Positive consequences for good behavior:

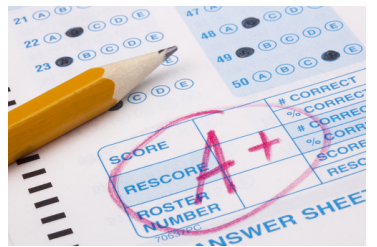
1. Verbal "Thank you"
2. Fire Card
3. Contact guardian via parent square
4. Mail postcard home

Negative consequences for breaking the rules:

1. Verbal Warning
2. Held after class AND contact guardian via parent square
3. Referral to Assistant Principal's office AND Detention

Grading

Students will be graded on participation, classwork, and completion of design challenges.

Course work:	Percentage	Grade Scale	
Participation	30%	A 90% - 100%	
		B 80% - 89%	
Classwork	30%	C 70% - 79%	
		D 60% - 69%	
Projects	40%	F 59% and below	

Parents/Guardians: Please check the parent portal regularly to see how well your student is performing.

Participation

If students are off task or distracting other students, participation points will be subtracted. Students can add participation points by working on more extensions or going above and beyond the expectations of the assignment. Or students can come after school to work on classwork to make up the missing participation points. While students are working on design challenges, students will be graded based on team check out.

Classwork

Assignments are graded based on completion. Students will earn at least:

50% - when they are wasting class time.

60% - when they are working most of the time.

70% - when they complete the minimum expectations of the assignment.

80% - when they are able to complete almost everything.

90% - when they are able to complete everything.

100% - when they go above and beyond what is expected.

Assignments can be turned in for a better score by going back and making up the assignment.

Projects

Throughout the semester, students will be given multiple day projects & design challenges. Students will be in groups of 3 to complete a task. Design challenges are graded based on a group scoring rubric. A group scoring rubric allows students to grade each other based on each team member's contribution to the project.

Grades in the Gradebook

The grading of each assignment is based on the number of days given for the assignment. In Aeries, the score is usually between 4 and 10 is called the Number Correct. The number of days is called the Possible Points. See the following table to see how the points are calculated based on the number of days. When trying to improve a grade, it is best to work on the assignments with multiple. That is where students can increase their grade.

For example:

	1 Day	2 Days	3 Days	4 Days	5 Days	10 Days
10 / 10	1	2	3	4	5	10
9 / 10	0.9	1.8	2.7	3.6	4.5	9
8 / 10	0.8	1.6	2.4	3.2	4	8
7 / 10	0.7	1.4	2.1	2.8	3.5	7
6 / 10	0.6	1.2	1.8	2.4	3	6
5 / 10	0.5	1	1.5	2	2.5	5
4 / 10	0.4	0.8	1.2	1.6	2	4
Missing Assignments are 0 / 10						

If a student turns in incomplete work, they will earn the minimum grade of 4/10. Missing work will stay missing until the end of the quarter.

Homework and After School STEAM Lab

Depending on the assignment or productivity of the students, some classwork may take more time than the 50 minute class period. Students may need some time at home to complete their classwork. Students are welcome to come after school and work in the STEAM Lab. The lab will be open Monday, Thursday and Friday from 2:20 pm to 3:20 pm. If there is an after school meeting, the lab may be closed or can close early. Updated times are found in the [STEAM Calendar](#).

Late or Making up Assignments

Students are allowed to make up late assignments and fix any assignments which received a low score. If the assignment is more than 10 days late, the score may be reduced based on the number of days late. To receive the credit for make up work, students **must** email Mr. Eaton AND re-submit the assignment into Google Classroom. In the email students will write the title of the assignment and explain why it was turned in late. Please allow up to 1 week from email submission for late work to be graded.

Absences, Tardies and Bathroom Passes

After returning from an absence, it is the student's responsibility to ask their peers for missing concepts. As a learning community we must help each other fill in what was missed. Students are not required to make up the assignment that was missed, however, they are responsible for understanding the concepts that were missed. If a student misses class time for a project, they may have extra time to complete the assignment.

A student is considered tardy if they are not in their seat at the beginning bell.
Consequences for being tardy is lunch time detention.

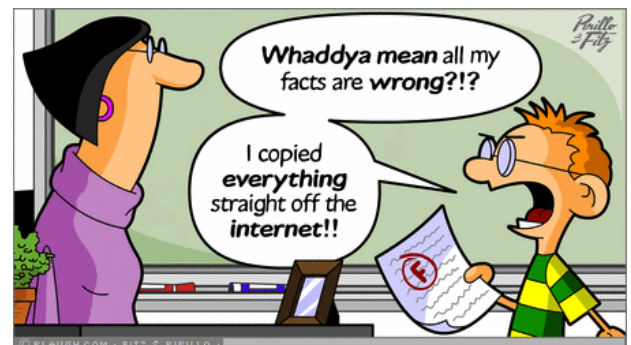
Bathroom passes are to be used for emergencies only. If a student has a medical condition please notify Mr. Eaton at the beginning of the year / semester. Each quarter there will be a competition to see which period has the lowest amount of bathroom passes. The winning period will get a pizza or ice cream party.

Any time a student leaves the classroom either for bathroom breaks or being called out of the room, they must use the Lake's Hall Pass (bit.ly/LakeHallPass) to sign out of the room **and** sign back into the room.

Policy on Academic Dishonesty

Academic Dishonesty is strictly prohibited. This includes, but not limited to:

- Allowing a student to copy work.
- Representing someone else's work as your own
- Depending on each case, academic dishonesty may result in:
 - A phone call home
 - A zero on the project
 - A F in the class



Classroom Procedures

These procedures are in place to take advantage of the limited time we have together. They have been developed so we can transition quickly and use our learning time efficiently. Please keep these procedures in mind everyday in class.

Entering the classroom before class starts

Students should sit in their seats before the bell rings. If a warm up is on the whiteboard, students should quietly work on the warm up. If not, look at classroom.google.com for the newest entries. Otherwise, students should continue where they left off. The noise level should be kept to a minimum while Mr. Eaton is preparing

for the lesson. You will be marked tardy if you are not following these procedures. Once Mr. Eaton is ready, quietly listen to Mr. Eaton's instructions.

Leaving the classroom after class

Students will be given a clean up reminder 4 minutes before the class time ends. Students will be dismissed by the teacher, not the bell. Computers are to be **logged off** and chairs are to be pushed in. **DO NOT TURN OFF** computers, they will be used in the next class.

Parent/Guardian Communication

All parents/guardians are currently signed up for ParentSquare. Watch for notifications based on the contact information given to the school office. Please make sure the office and ParentSquare have your CURRENT EMAIL and PHONE NUMBER. Parents & students will receive weekly reports from Aeries.

Extra Credit

Thank you for reaching the end of this document. If your student emails me (using: reaton@ggusd.net) saying they saw this message AND they add your email address in the to: field, I will give your student extra credit worth one assignment. This can only be redeemed during the first quarter of school. I will reply with an acknowledgement to both you and your student.