Grade 8
Distance Learning Module 5: Week of: 4/27/2020-5/1/2020

Grade 8 Computer Science - *Modified from Unit 1 - 3D Modeling*

Targeted Goals from Stage 1: Desired Results

Content Knowledge: Design requires a great deal of precision and accuracy in creating a prototype, which means being able to fluently manipulate 3d modeling software and work in virtual 3D spaces.

Vocabulary: CAD = computer aided design, workplane, placing, viewing, moving, rotating, sizing, grouping and aligning of objects.

Skills:

- Insert shapes on a new geometric plane while creating an object, using 3D modeling software.
- Create an object with a variety of features, using 3D modeling software.
- Group several shapes together while creating your object.
- Manipulate the orientation options of any given object, as needed.
- Synthesize your CADing skills to design an original object with a high level of attention to detail and 3-dimensionality.

Expectation:

Description of Task (s):	Resources and Materials:	Daily Checks (Return to Google Classroom or snapshots from a cell phone)
Monday ● Watch Tinkercad tutorial on making organic shapes and brainstorm ideas for your own original design	● Tinkercad tutorial on making organic shapes	● Student will watch video and respond to a question on EdPuzzle.
Tuesday ● **Live class with Google Meet (ACE classes)** ● Read the description and feedback rubric for the final project of this CAD unit. ● Decide what you will be designing. ● Complete the Design Rationale & Models document	● Final CAD project description and criteria. ● Design Rationale & Models document	● Student-completed Design Rational & Models document ● The teacher will be able to track student progress via Tinkercad moderation.

Description of Task (s):	Resources and Materials:	Daily Checks (Return to Google Classroom or snapshots from a cell phone)
Wednesday ● **Live class with Google Meet (BDF classes)** ● Read the description and feedback rubric for the final project of this CAD unit. ● Decide what you will be designing. ● Complete the Design Rationale & Models document	● Final CAD project description and criteria. ● Design Rationale & Models document	● Student-completed Design Rational & Models document ● The teacher will be able to track student progress via Tinkercad moderation.
Thursday ● Begin working on your original 3D model.	● All necessary resources will be available on Google Classroom. ● Teacher will be available to assist students as needed during office hours.	● The teacher will be able to track student progress via Tinkercad moderation.
Friday ● Continue working on your original 3D model.	● All necessary resources will be available on Google Classroom. ● Teacher will be available to assist students as needed during office hours.	● The teacher will be able to track student progress via Tinkercad moderation.

Week criteria for success (attach student checklists or rubrics):

- Students will complete some basic 3D modeling functions AND synthesize them to create well-designed models.
- Students will show they have begun the early planning stage of design by brainstorming ideas.
- Students will imagine 3D model that represents them as a person.

Supportive resources and tutorials for the week (plans for re-teaching):

My video tutorials above can be viewed multiple times for students to re-teach themselves. I will have my official office hours every day 1:00-2:00, when I will respond to student emails ASAP. But you can contact me at kiefer.michael@madisonps.org any time of the day.