DUTCHTOWN MIDDLE SCHOOL

Grade Level: 6th – 8th
Subject: Engineering Technology
Week #8
February 29th – March 4th
Professional Learning Implementation (☐ yes/ no) Explain:

PLC#1—What do students need to know and be able to do?
PLC#2—How will we know when they have learned it?
PLC#3—What will we do when they haven't learned it?
PLC#4—What will we do when they already know it?

MONDAY

Standard:

6th Grade
MSENGR-EET-4: Students will demonstrate an understanding for a technological world through hands-on projects.
a) Apply the engineering design process
b) Use and maintain technological products and systems

7th Grade
MSENGR-II-2: Students will examine the core concepts of engineering and technology.
d) Reverse engineer a consumer product

8th Grade
MSENGR-TS-7: Students will develop leadership skills and work ethics.
a) Demonstrate work ethics within the classroom and lab environment
b) Investigate leadership skills through co-curricular activities (i.e TSA, First Lego League, BEST Robotics, First Vex Challenge, etc.)

Opening (warm-up)

6th Grade
1. Explain why it is important to draw a sketch before creating a prototype.

7th Grade
1. Explain the process of creating a cube with the following dimensions:
   Length – 4 inches
   Width – 10 inches
   Height – 15 inches
2. Explain the process of drawing a circle with a radius of 5 inches.

8th Grade
1. Explain why it is important to organize the parts for the robot before we begin to build the robot.

Essential Question

6th Grade
1. Why is it important to understand the steps of the EDP?

7th Grade
What is the difference in 2D and 3D design?

8th Grade
How has robotics impacted our society?

Work Session (activities/assignments)

6th Grade:
1. The teacher will discuss items that will be on quiz on Wednesday.
2. The teacher will distribute the résumé rubric. Students will work on résumé to be submitted no later than Wednesday, March 9th.

7th Grade:
1. The teacher will discuss items that will be on quiz on Wednesday.
2. The teacher will review answers to notes page for Google SketchUp
3. The teacher will show students how to use Google SketchUp
4. Students that scored 80% on the "Ice Cube Challenge" will begin using Google SketchUp.
5. Students that haven't scored 80% on the "Ice Cube Challenge" will continue working on the application of the EDP to the "Ice Cube Challenge"

8th Grade:
1. The teacher will discuss items that will be on quiz on Wednesday.
2. The teacher will return graded "Ice Cube Challenge" assignment.
3. Students that scored 80% and above will be placed in groups to begin VEX robot. Students will follow checklist.

Closing (evaluation):

Homework

6th Grade - Work on résumé. Due date is March 9th.

7th Grade – Work on résumé. Due date is March 9th.

8th Grade – Work on résumé. Due date is March 9th.

FRIDAY

Standard

6th Grade
MSENGR-EET-4: Students will demonstrate an understanding for a technological world through hands-on projects.
a) Apply the engineering design process
b) Use and maintain technological products and systems

7th Grade
MSENGR-II-2: Students will examine the core concepts of engineering and technology.
d) Reverse engineer a consumer product

8th Grade
MSENGR-TS-7: Students will develop leadership skills and work ethics.
a) Demonstrate work ethics within the classroom and lab environment
b) Investigate leadership skills through co-curricular activities (i.e. TSA, First Lego League, BEST Robotics, First Vex Challenge, etc.)

Opening (warm-up)

6th Grade
1. Name the steps of the EDP in the correct order.
2. Explain why the EDP is used.

7th Grade
1. Explain the difference between the radius of a circle and the diameter of a circle.

8th Grade
1. Explain why teamwork is important.
2. Explain what troubleshooting means.

Essential Question

6th Grade
Explain why it is important to use the EDP.

7th Grade
What is the difference in 2D and 3D design?

8th Grade
How has robotics impacted our society?

Work Session (activities/assignments)

6th Grade
3. The teacher will distribute the résumé rubric. Students will work on résumé to be submitted no later than Wednesday, February 24th.
4. Students that did not score at least 75% on the Engineering Design Process quiz will complete alternative on the EDP.
5. Students will finish "Ice Cube Challenge". The final document must be saved on student X: Drive.

7th Grade
1. The teacher will distribute the résumé rubric. Students will work on résumé to be submitted no later than Wednesday, February 24th.
2. The teacher will return graded "Ice Cube Challenge" to students. Students that scored 80% or above will continue with Google SketchUp. Students that scored less than 80% will make corrections to "Ice Cube Challenge" and return for rescoring.
3. Students will watch video on Google SketchUp and complete notes

8th Grade
1. The teacher will distribute the résumé rubric. Students will work on résumé to be submitted no later than Wednesday, February 24th.
2. Students that did not finish "Ice Cube Challenge" corrections will finish and return today.
3. Students will continue working on VEX robot project.

Closing (evaluation):
Teacher choice

Homework

6th Grade – Work on résumé. Due date is March 9th.

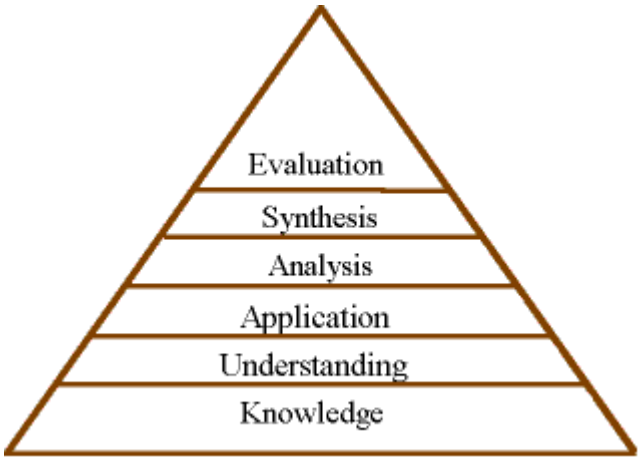
7th Grade
1. Begin designing chair for Google SketchUp.
2. Work on résumé. Due date is March 9th.

8th Grade
1. Work on résumé. Due date is March 9th.

BEST PRACTICE STRATEGIES:	ACCOMMODATIONS:
☒ Peer Evaluation/ Tutoring	☒ Small group instruction
☒ Graphic Organizer	☒ Test read aloud or clarified directions
☐ Conferencing	☒ Extended time allowance
☒ Review	☐ Reduced length of exams/assignments
☒ Assessment Rubrics	☐ Modified grading policy
☒ Student Self-Assessment	☐ Modified test
☒ Teacher Demonstration	☐ Open book test/take home tests
☒ Cooperative Grouping	☐ Calculator/adapted calculator
	☒ Study sheets
	☒ Other - assistive technology (use of novel on tape/cd

VOCABULARY

6th GRADE
Lab safety Work ethic Design Constraints Specifications Engineering Design Process
7th GRADE
Prototype 2-Dimensional 3-Dimensional Extrusion Orbit Pan
8th GRADE
Work ethic Design Constraints Specifications Engineering Design Process Robotics Electrical engineering Mechanical engineering Civil engineering
HIGHER ORDER THINKING SKILLS USED THIS WEEK



- ☒ Evaluation
- ☒ Synthesis
- ☒ Analysis
- ☒ Application
- ☒ Understanding
- ☒ Knowledge