

Unit 6: Advanced Floor Plans - Designing with a Proportioning System / Ken Mat Floor Plan Design

Content Area: **Technology**
Course(s):
Time Period: **February**
Length: **9-10 Blocks**
Status: **Published**

Enduring Understandings

1. Architecture of History and Today is/was primarily designed using some form of proportioning or regulating system
2. Proportioning systems help to regulate a design and provide order and connection
3. Proportioning systems not only connect to a "datum", but also connect to the humans using the space.
4. The human scale directly influences the size and design of the space.
5. Throughout history designers have studied different proportioning systems in a pursuit of "perfect design"

Essential Questions

1. Why is it important to connect a deeper meaning to an architectural design?
2. How have cultures in the past used symbolism and meaning in the buildings they create?
3. How have the great designers of history used their proportioning system to create a method of building?
4. Why are proportions important when designing for human scale?
5. What is a "datum"? How does it drive a design?

Content

Regulating Lines, Proportioning System, Ken Proportioning, Golden Section, Golden Ratio, Classical Orders, Renaissance Theories, Modular, Anthropometry, Scale, Proportions, Structural Proportions, Material Proportions

Skills

1. Students will be able to analyze a proportioning systems and provide an exemplation of its design layout
2. Students will be able to design a building facade and floor plan that are connected using a proportioning system
3. Students will be able to describe using unit vocabulary how a proportioning system is used

Resources

AutoCAD

Standards

9.3.12.AC-DES.7 - Employ appropriate representational media to communicate concepts and project design.

CTE 9.3.12.AC.6 - Read, interpret and use technical drawings, documents and specifications to plan a project.

CTE 9.3.12.AC.1 - Use vocabulary, symbols and formulas common to architecture and construction.

CTE 9.3.12.AC-DES.6 - Apply the techniques and skills of modern drafting, design, engineering and construction to projects.

8.1.12.A.1 - Create a personal digital portfolio which reflects personal and academic interests, achievements, and career aspirations by using a variety of digital tools and resources.