GEORGIA | PEACH STATE PATHWAYS

Career, Technical, & Agricultural Education

ACCT—ARCHITECTURAL DRAWING

PATHWAY: Architectural Drawing & Design

COURSE: Architectural Drawing & Design I

UNIT 4: Building Codes

✔ INTRODUCTION

Annotation:

Students will explain how building codes and ordinances affect design.

Grade(s):

X	9th
X	10th
X	11th
X	12th

Time:

5 hrs

Author:

Connie Highnote

Additional Author(s):

Students with Disabilities:

For students with disabilities, the instructor should refer to the student's IEP to be sure that the accommodations specified are being provided. Instructors should also familiarize themselves with the provisions of Behavior Intervention Plans that may be part of a student's IEP. Frequent consultation with a student's special education instructor will be beneficial in providing appropriate differentiation.

FOCUS STANDARDS

GPS Focus Standards:

ACT-ADDI-1 Students will identify components related to the design process.

    e.   Explain how building codes and ordinances affect design.

GPS Academic Standards:

SCSh9. Students will enhance reading in all curriculum areas.

ELA9RL5. The student understands and acquires new vocabulary and uses it correctly in reading and writing.

ELA11LSV1. The student participates in student-to-teacher, student-to-student, and group verbal interactions.

National / Local Standards / Industry / ISTE:

UNDERSTANDINGS & GOALS

Enduring Understandings:

Building codes are the minimum requirements dictated by the building authority of a certain jurisdiction. Designs should include elements required by building codes and ordinances to ensure that the home will meet the standards.

Essential Questions:

What is BOCA, SBCCI, ICBO? What is the difference in a building code and a building ordinance? Why do building codes exist? What happens if the building code is not followed?

Knowledge from this Unit:

Students will understand the importance of building codes and ordinances and how they affect the design of a residence.

Skills from this Unit:

Students will identify elements of a home given a floor plan and determine if the elements exist to meet a building code.

ASSESSMENT(S)

Assessment Method Type:

            Pre-test

            Objective assessment - multiple-choice, true- false, etc.
                __ Quizzes/Tests
                __ Unit test

   x   Group project

            Individual project

   x   Self-assessment - May include practice quizzes, games, simulations, checklists, etc.
                _x_ Self-check rubrics
                __ Self-check during writing/planning process
                __ Journal reflections on concepts, personal experiences and impact on one's life
                __ Reflect on evaluations of work from teachers, business partners, and competition judges
                __ Academic prompts
                __ Practice quizzes/tests

            Subjective assessment/Informal observations
                __ Essay tests
                __ Observe students working with partners
                __ Observe students role playing

            Peer-assessment
                __ Peer editing & commentary of products/projects/presentations using rubrics
                __ Peer editing and/or critiquing

   x   Dialogue and Discussion
                __ Student/teacher conferences
                _x _ Partner and small group discussions
                _x_ Whole group discussions
                __ Interaction with/feedback from community members/speakers and business partners

            Constructed Responses
                __ Chart good reading/writing/listening/speaking habits
                __ Application of skills to real-life situations/scenarios

            Post-test

Assessment(s) Title:

       Understanding of building codes

Assessment(s) Description/Directions:

       Invite a local builder or someone from the building permit office in your area to visit your class and discuss the building codes adopted and explain how they are enforced. Have students write a summary of the information given.

Attachments for Assessment(s):

LEARNING EXPERIENCES

Sequence of Instruction

1. **Identify the Standards. Standards should be posted in the classroom for each lesson.**
   ACT-ADDI-1 Students will identify components related to the design process.
   - e.   Explain how building codes and ordinances affect design.

2. **Review Essential Questions.**
   What is BOCA, SBCCI, ICBO? What is the difference in a building code and a building ordinance? Why do building codes exist? What happens if the building code is not followed?

3. **Identify and review the unit vocabulary.**

Accessible route	ADA	Forward approach
Habitable space	IRC	Parallel approach
BOCA	ICC	Egress
ICBO	Group R-1	Glazing
ANSI	One hour wall	Footcandle

4. **Interest approach – Mental set**
   Students are accustomed to having rules to follow even though they would prefer not to. Authorities enforcing building codes exist to protect the health and safety of the occupants and the integrety of the structure. Building codes are constantly being revised and vary by area. It is important to be aware of the codes as they often affect the design of the structure.

   Invite a builder or a building inspector to the class to discuss local building codes. Students enjoy learning from an expert.

Lesson 1
Discussion
1. Ask students if they ever worry about their safety in a building or home.
2. Distribute Unit 4 PRE LEARNING.doc and have students complete the activity.
3. Place students in pairs and have them create a power point using the vocabulary words to explain what building codes are and why they are important. Specify a limited number of slides.
4. Have students present their power points to the class.

Lesson 2
Discussion
1. Ask students who write building codes.
2. Ask students to work in teacher-assigned groups or pairs to create a Building Codes brochure that highlights Uniform Building Code (UBC), Basic National Building Code (BNBC) and Standard Building Code (SBC).

3. Have students use their textbook, resource materials and the internet to do their research.

Attachments for Learning Experiences:
Unit 4 PRE LEARNING

Notes & Reflections:

✅ CULMINATING PERFORMANCE TASK (Optional)

Culminating Unit Performance Task Title:

Culminating Unit Performance Task Description/Directions/Differentiated Instruction:

Attachments for Culminating Performance Task:

✅ UNIT RESOURCES

Web Resources:
http://www.delmarlearning.com/companions/content/1401867154/links/chapter7.asp

Attachment(s):

Materials & Equipment:

What 21st Century Technology was used in this unit:

x	Slide Show Software		Graphing Software		Audio File(s)
	Interactive Whiteboard		Calculator		Graphic Organizer
	Student Response System		Desktop Publishing		Image File(s)
	Web Design Software		Blog		Video
	Animation Software		Wiki		Electronic Game or Puzzle Maker
	Email	x	Website		