

Steps to Success

LESSON PLAN FOR SCHOOL VISITS & VIRTUAL CLASSROOMS



Theme: Energy and Innovation



Grade level: K-3

The goal is to increase awareness of students (from kindergarten to third grade) about building safety, energy, sustainability and innovation.

Objectives:

- The students will learn about how building safety industry is on the cutting edge of technology, energy efficiency and innovation.
- The students will recognize tips for green living

Time: 50 minutes



Lesson Plan Summary:

1. Introduce the code official and the building safety department and how they fit in with other public safety professionals.
2. Briefly explain building codes and how they help keep safe the places where we live, work and play.
3. Explain energy, sustainability and innovation.
4. Review important at-home green living tips.
5. Finish lesson with the following activity: Crossword

Materials:

- Pictures or examples of building science and technology including science and technology [interactive poster](#)
- [Building Codes: Driving Growth Through Innovation, Resilience and Safety](#) handout
- [10 Important Tips to Remember for Green and Sustainable Building](#) handout
- Inspector stickers (available for purchase)
- Building and Green Construction Codes (free access available in [ICC Digital Codes](#))
- *CODiE* the Code Official's Building Safety Activity Book (available for download)
- Building Codes and Code Officials Keep Us Safe coloring book (available for download)
- Building safety vest (available for purchase)
- Building safety hats (available for purchase)

Presented by



Lesson Outline:

- 1. Introduction** – Introduce yourself and the name of the department where you work. Discuss how the code official protects people by making sure their homes and buildings are safe. Talk about how the building department is similar to the police department and fire department because they all protect people. (5 minutes)
- 2. Introducing Building Codes** – Show students the building codes and explain that it gives directions and contains rules for everything from putting on a new roof to adding on a new room. The building codes are what architects, engineers, builders, construction workers (people who build houses and buildings) and even homeowners need to follow when they are building something in their house so it will be safe. (5 minutes)
- 3. Explaining Energy, Sustainability and Innovation** – (10 minutes)
 - Explain how energy fuels our lives – households, businesses and society in general.
 - Explain that green building and sustainable construction strategies reinforce societal health, life and safety benefits that building codes offer, providing resilience to natural disasters, a changing climate, resource consumption and management, and service interruptions due to unforeseen events.
 - i. Introduce the International Energy Conservation Code and International Green Construction Code as codes that address energy efficiency and greenhouse gas reduction goals.
- 4. Explaining At-Home Green Living Tips** – Discuss the various steps students and their families can take to live more sustainably. (5 minutes)

Green and Sustainable Living Tips

- i. Close curtains and shades at night to keep warmth in and keep them open during the day
- ii. Replace ordinary light bulbs with Compact Fluorescent Light (CFL) bulbs
- iii. Plug home electronics, such as TVs and DVD players, into power strips and turn the power strips off when the equipment is not in use.

- 5. Activity and Q&A Session** – Pass out the Crossword activity for the students to complete. After completing the activity, reserve time for students to ask questions. (25 minutes)
 - **For Virtual Classrooms** – Have students download the Crossword activity to complete.
- 6. Extension Activities** – If time allows, you might do one of the following activities, or they can be left with the teacher to do in the classroom or given as homework.
 - **Building Safety Treasure Hunt** - Break students into teams. Have each team go on a walking field trip of the school and find as many safety features in the building as they can, such as the exit signs, sprinklers, railings, etc. The students or the teacher can make a list of the items – or draw each of the items they find. Alternate – Use a picture checklist to check off items. (Grades K–3)
 - ♦ **For Virtual Classrooms** – Have students turn on their cameras and go on a virtual tour to identify the safety features within their bedrooms or homes.
 - **Posters** – Students design their own Building Safety Month posters. (Grades K–3)
 - **Essay** – Students write an essay describing the importance of energy, sustainability and innovation. (Grades 2–3)
 - **Class Book** – Students write/illustrate a class book about the importance of energy, sustainability and innovation. (Grades K–3)

Optional:

- Distribute CODiE Activity Books.
- Distribute Building Safety Month Coloring Books.
- Distribute building safety inspector stickers.
- Using the information they learned today, invite the students to share and complete these activities with their parents.