

Course Title: Transportation Engineering

Board Approval Date:

Credit / Hours: .5 credit

Course Description:

Transportation Engineering focuses on problem solving activities in the areas of transportation. These activities will include projects involving land, air and water travel. Students will utilize various 3D CAD software packages to aid them in their project designs.

Learning Activities / Modes of Assessment:

Large group / Individual instruction
Worksheets
Participation & Clean Up
Individual / Group Work
Computer Aided Design
Computer Numeric Controlled Equipment

Tests and Quizzes
Checklists / Teacher Observation
Projects w/ Rubrics

Instructional Resources:

www.discoveryeducation.com
Technology Student Association
Learning Focused Schools
Online Tutorials
2D and 3D Architectural Software Programs

Course Pacing Guide

Course: **Transportation Engineering**

Course Unit (Topic)	Length of Instruction (Days/Periods)
1. 1C Using SolidWorks to Design Products for The Transportation Industry	10 days
2. 1E Flight Endurance Project	10 days
3. 2C CNC Machining	10 days
4. 2E Boat Hull Project	10 days
5. 3C Vehicle Design	25 days
6. 3E Transportation Modeling Project	10 days
7. 4E Egg Car Crash Project	10 days

Topic: 1C - Using SolidWorks to Design Products for the Transportation Industry

Days: 10

Subject(s): Technology

Grade(s): 9th, 10th, 11th, 12th

Know:

3.4.12.A1. – Important
CHARACTERISTICS OF TECHNOLOGY - Compare and contrast the rate of technological development over time.

3.4.12.A2. – Essential
CORE CONCEPTS OF TECHNOLOGY - Describe how management is the process of planning, organizing, and controlling work.

3.4.12.A3. – Essential
TECHNOLOGY CONNECTIONS - Demonstrate how technological progress promotes the advancement of science, technology, engineering and mathematics (STEM).

3.4.12.E4. – Compact
INFORMATION AND COMMUNICATION TECHNOLOGIES - Synthesize the effects of information and communication systems and subsystems as an integral part of the development of the Information Age.

3.4.12.E7. – Important
CONSTRUCTION TECHNOLOGIES - Analyze the technologies of prefabrication and new structural materials and processes as they pertain to constructing the modern world.

Understand:

3 Dimensional modeling programs allow engineers to design a product that could be used in the area of transportation.

Do:

3.4.12.A1. – Important
CHARACTERISTICS OF TECHNOLOGY - Compare and contrast the rate of technological development over time.

3.4.12.A2. – Essential
CORE CONCEPTS OF TECHNOLOGY - Describe how management is the process of planning, organizing, and controlling work.

3.4.12.A3. – Essential
TECHNOLOGY CONNECTIONS - Demonstrate how technological progress promotes the advancement of science, technology, engineering and mathematics (STEM).

3.4.12.E7. – Important
CONSTRUCTION TECHNOLOGIES - Analyze the technologies of prefabrication and new structural materials and processes as they pertain to constructing the modern world.

3.4.12.E6. – Essential
MANUFACTURING TECHNOLOGIES - Compare and contrast the importance of science, technology, engineering and math (STEM) as it pertains to the manufactured world.

Develop the transportation themed practice drawings using SolidWorks

3.4.12.E4. - INFORMATION AND COMMUNICATION TECHNOLOGIES - Synthesize the effects of information and communication systems and subsystems as an integral part of the development of the Information Age.

Topic: 1C - Using SolidWorks to Design Products for the Transportation Industry

Days: 10

Subject(s): Technology

Grade(s): 9th, 10th, 11th, 12th

Know:

Understand:

Do:

3.4.12.E6. – Essential MANUFACTURING TECHNOLOGIES - Compare and contrast the importance of science, technology, engineering and math (STEM) as it pertains to the manufactured world.

Reference Geometry

Patterns

Mirror

Swept Boss/Cut

Lofted Boss/Cut

Structural Member

Topic: 1E Flight Endurance Project

Days: 10

Subject(s): Technology

Grade(s): 9th, 10th, 11th, 12th

Know:

3.4.12.A1. – Important
CHARACTERISTICS OF TECHNOLOGY - Compare and contrast the rate of technological development over time.

3.4.12.A2. – Essential
CORE CONCEPTS OF TECHNOLOGY - Describe how management is the process of planning, organizing, and controlling work.

3.4.12.A3. – Essential
TECHNOLOGY CONNECTIONS - Demonstrate how technological progress promotes the advancement of science, technology, engineering and mathematics (STEM).

3.4.12.C2. – Essential
ENGINEERING DESIGN - Apply the concept that engineering design is influenced by personal characteristics, such as creativity, resourcefulness, and the ability to visualize and think abstractly.

Understand:

Aerospace Engineers incorporate many principles in the development and construction of aircraft.

Do:

3.4.12.A1. – Important
CHARACTERISTICS OF TECHNOLOGY - Compare and contrast the rate of technological development over time.

3.4.12.A2. – Essential
CORE CONCEPTS OF TECHNOLOGY - Describe how management is the process of planning, organizing, and controlling work.

3.4.12.A3. – Essential
TECHNOLOGY CONNECTIONS - Demonstrate how technological progress promotes the advancement of science, technology, engineering and mathematics (STEM).

3.4.12.C2. – Essential
ENGINEERING DESIGN - Apply the concept that engineering design is influenced by personal characteristics, such as creativity, resourcefulness, and the ability to visualize and think abstractly.

3.4.12.C3. – Essential
RESEARCH & DEVELOPMENT, INVENTION & INNOVATION, EXPERIMENTATION/PROBLEM SOLVING AND TROUBLESHOOTING - Apply the concept that many technological problems require a multi-disciplinary approach.

3.4.12.D2. – Important
USING AND MAINTAINING TECHNOLOGICAL SYSTEMS - Verify that engineering design is influenced by personal characteristics, such as creativity, resourcefulness, and the ability to visualize and think abstractly.

3.4.12.E5. – Important
TRANSPORTATION TECHNOLOGIES - Explain how the design of intelligent and non-intelligent transportation systems depends on many processes and innovative techniques.

Analyze flight principles with a rubber band powered model aircraft.

Build, fly and adjust (trim) a model to make long endurance flights inside a contained airspace.

Topic: 1E Flight Endurance Project

Days: 10

Subject(s): Technology

Grade(s): 9th, 10th, 11th, 12th

Know:	Understand:	Do:
<p>3.4.12.C3. – Essential RESEARCH & DEVELOPMENT, INVENTION & INNOVATION, EXPERIMENTATION/ PROBLEM SOLVING AND TROUBLESHOOTING - Apply the concept that many technological problems require a multi-disciplinary approach.</p> <p>3.4.12.D2. – Important USING AND MAINTAINING TECHNOLOGICAL SYSTEMS - Verify that engineering design is influenced by personal characteristics, such as creativity, resourcefulness, and the ability to visualize and think abstractly.</p> <p>3.4.12.E5. – Important TRANSPORTATION TECHNOLOGIES - Explain how the design of intelligent and non-intelligent transportation systems depends on many processes and innovative techniques.</p> <p>Flight principles with a rubber band powered model aircraft.</p> <p>3.4.12.A2. - CORE CONCEPTS OF TECHNOLOGY - Describe how management is the process of planning,</p>		

Topic: 1E Flight Endurance Project

Days: 10

Subject(s): Technology

Grade(s): 9th, 10th, 11th, 12th

Know:

Understand:

Do:

organizing, and
controlling work.

Topic: 2C - CNC Machining

Days: 10

Subject(s): Technology

Grade(s): 9th, 10th, 11th, 12th

Know:

3.4.12.A1. – Important
CHARACTERISTICS OF TECHNOLOGY - Compare and contrast the rate of technological development over time.

3.4.12.A2. – Essential
CORE CONCEPTS OF TECHNOLOGY - Describe how management is the process of planning, organizing, and controlling work.

3.4.12.A3. – Essential
TECHNOLOGY CONNECTIONS - Demonstrate how technological progress promotes the advancement of science, technology, engineering and mathematics (STEM).

3.4.12.C2. – Essential
ENGINEERING DESIGN - Apply the concept that engineering design is influenced by personal characteristics, such as creativity, resourcefulness, and the ability to visualize and think abstractly.

Understand:

CAD programs can be used to develop an actual part using the CNC machines.

Do:

3.4.12.A1. – Important
CHARACTERISTICS OF TECHNOLOGY - Compare and contrast the rate of technological development over time.

3.4.12.A2. – Essential
CORE CONCEPTS OF TECHNOLOGY - Describe how management is the process of planning, organizing, and controlling work.

3.4.12.A3. – Essential
TECHNOLOGY CONNECTIONS - Demonstrate how technological progress promotes the advancement of science, technology, engineering and mathematics (STEM).

3.4.12.C2. – Essential
ENGINEERING DESIGN - Apply the concept that engineering design is influenced by personal characteristics, such as creativity, resourcefulness, and the ability to visualize and think abstractly.

3.4.12.C3. – Essential
RESEARCH & DEVELOPMENT, INVENTION & INNOVATION, EXPERIMENTATION/PROBLEM SOLVING AND TROUBLESHOOTING - Apply the concept that many technological problems require a multi-disciplinary approach.

3.4.12.D2. – Important
USING AND MAINTAINING TECHNOLOGICAL SYSTEMS - Verify that engineering design is influenced by personal characteristics, such as creativity, resourcefulness, and the ability to visualize and think abstractly.

3.4.12.E5. – Important
TRANSPORTATION TECHNOLOGIES - Explain how the design of intelligent and non-intelligent transportation systems depends on many processes and innovative techniques.

3.4.12.E6. – Essential
MANUFACTURING TECHNOLOGIES - Compare and contrast the importance of science, technology, engineering and math (STEM) as it pertains to the manufactured world.

Topic: 2C - CNC Machining

Days: 10

Subject(s): Technology

Grade(s): 9th, 10th, 11th, 12th

Know:

Understand:

Do:

3.4.12.C3. – Essential RESEARCH & DEVELOPMENT, INVENTION & INNOVATION, EXPERIMENTATION/ PROBLEM SOLVING AND TROUBLESHOOTING
- Apply the concept that many technological problems require a multi-disciplinary approach.

3.4.12.D2. – Important USING AND MAINTAINING TECHNOLOGICAL SYSTEMS - Verify that engineering design is influenced by personal characteristics, such as creativity, resourcefulness, and the ability to visualize and think abstractly.

3.4.12.E5. – Important TRANSPORTATION TECHNOLOGIES - Explain how the design of intelligent and non-intelligent transportation systems depends on many processes and innovative techniques.

3.4.12.E6. – Essential MANUFACTURING TECHNOLOGIES - Compare and contrast the importance of science, technology, engineering and math (STEM) as it pertains to the manufactured world.

Design a model of a car rim, or similar product, in SolidWorks and use the file to develop a G-Code for a CNC machine.

Use the G-Code to create the actual part on one of the CNC machines.

Topic: 2C - CNC Machining

Days: 10

Subject(s): Technology

Grade(s): 9th, 10th, 11th, 12th

Know:

Understand:

Do:

Computer Aided Machining (CAM) Computer Numerical Controlled (CNC) G-Code		
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Topic: 2E Boat Hull Project

Days: 10

Subject(s): Technology

Grade(s): 9th, 10th, 11th, 12th

Know:

3.4.12.A1. – Important
CHARACTERISTICS OF TECHNOLOGY - Compare and contrast the rate of technological development over time.

3.4.12.A2. – Essential
CORE CONCEPTS OF TECHNOLOGY - Describe how management is the process of planning, organizing, and controlling work.

3.4.12.A3. – Essential
TECHNOLOGY CONNECTIONS - Demonstrate how technological progress promotes the advancement of science, technology, engineering and mathematics (STEM).

3.4.12.C2. – Essential
ENGINEERING DESIGN - Apply the concept that engineering design is influenced by personal characteristics, such as creativity, resourcefulness, and the ability to visualize and think abstractly.

Understand:

An engineer incorporates buoyancy principles and hull design when constructing an efficient boat hull.

Do:

3.4.12.A1. – Important
CHARACTERISTICS OF TECHNOLOGY - Compare and contrast the rate of technological development over time.

3.4.12.A2. – Essential
CORE CONCEPTS OF TECHNOLOGY - Describe how management is the process of planning, organizing, and controlling work.

3.4.12.A3. – Essential
TECHNOLOGY CONNECTIONS - Demonstrate how technological progress promotes the advancement of science, technology, engineering and mathematics (STEM).

3.4.12.C2. – Essential
ENGINEERING DESIGN - Apply the concept that engineering design is influenced by personal characteristics, such as creativity, resourcefulness, and the ability to visualize and think abstractly.

3.4.12.C3. – Essential
RESEARCH & DEVELOPMENT, INVENTION & INNOVATION, EXPERIMENTATION/PROBLEM SOLVING AND TROUBLESHOOTING - Apply the concept that many technological problems require a multi-disciplinary approach.

3.4.12.D2. – Important
USING AND MAINTAINING TECHNOLOGICAL SYSTEMS - Verify that engineering design is influenced by personal characteristics, such as creativity, resourcefulness, and the ability to visualize and think abstractly.

3.4.12.E5. – Important
TRANSPORTATION TECHNOLOGIES - Explain how the design of intelligent and non-intelligent transportation systems depends on many processes and innovative techniques.

Analyze buoyancy principles and hull design for a weight powered boat.

Build and test a boat hull design to transport as much cargo as possible.

Topic: 2E Boat Hull Project

Days: 10

Subject(s): Technology

Grade(s): 9th, 10th, 11th, 12th

Know:	Understand:	Do:
<p>3.4.12.C3. – Essential RESEARCH & DEVELOPMENT, INVENTION & INNOVATION, EXPERIMENTATION/ PROBLEM SOLVING AND TROUBLESHOOTING - Apply the concept that many technological problems require a multi-disciplinary approach.</p> <p>3.4.12.D2. – Important USING AND MAINTAINING TECHNOLOGICAL SYSTEMS - Verify that engineering design is influenced by personal characteristics, such as creativity, resourcefulness, and the ability to visualize and think abstractly.</p> <p>3.4.12.E5. – Important TRANSPORTATION TECHNOLOGIES - Explain how the design of intelligent and non-intelligent transportation systems depends on many processes and innovative techniques.</p> <p>Buoyancy principles and hull design for a weight powered boat.</p> <p>3.4.12.A2. - CORE CONCEPTS OF TECHNOLOGY - Describe how management is the process of planning,</p>		

Topic: 2E Boat Hull Project

Days: 10

Subject(s): Technology

Grade(s): 9th, 10th, 11th, 12th

Know:

Understand:

Do:

organizing, and
controlling work.

Topic: 3C - Vehicle Design

Days: 25

Subject(s): Technology

Grade(s): 9th, 10th, 11th, 12th

Know:

3.4.12.A1. – Important CHARACTERISTICS OF TECHNOLOGY - Compare and contrast the rate of technological development over time.

3.4.12.A3. – Essential TECHNOLOGY CONNECTIONS - Demonstrate how technological progress promotes the advancement of science, technology, engineering and mathematics (STEM).

3.4.12.C2. – Essential ENGINEERING DESIGN - Apply the concept that engineering design is influenced by personal characteristics, such as creativity, resourcefulness, and the ability to visualize and think abstractly.

3.4.12.C3. – Essential RESEARCH & DEVELOPMENT, INVENTION & INNOVATION, EXPERIMENTATION/ PROBLEM SOLVING AND TROUBLESHOOTING - Apply the concept that many technological problems require a multi-disciplinary approach.

Understand:

Engineers can virtually design and test vehicles using SolidWorks.

Do:

3.4.12.A1. – Important CHARACTERISTICS OF TECHNOLOGY - Compare and contrast the rate of technological development over time.

3.4.12.A3. – Essential TECHNOLOGY CONNECTIONS - Demonstrate how technological progress promotes the advancement of science, technology, engineering and mathematics (STEM).

3.4.12.C2. – Essential ENGINEERING DESIGN - Apply the concept that engineering design is influenced by personal characteristics, such as creativity, resourcefulness, and the ability to visualize and think abstractly.

3.4.12.C3. – Essential RESEARCH & DEVELOPMENT, INVENTION & INNOVATION, EXPERIMENTATION/PROBLEM SOLVING AND TROUBLESHOOTING - Apply the concept that many technological problems require a multi-disciplinary approach.

3.4.12.D2. – Important USING AND MAINTAINING TECHNOLOGICAL SYSTEMS - Verify that engineering design is influenced by personal characteristics, such as creativity, resourcefulness, and the ability to visualize and think abstractly.

3.4.12.E6. – Essential MANUFACTURING TECHNOLOGIES - Compare and contrast the importance of science, technology, engineering and math (STEM) as it pertains to the manufactured world.

Design, test, build and race a CO2 powered dragster.

Develop a working model of a bicycle and add animation to show how it works.

3.4.12.E4. - INFORMATION AND COMMUNICATION TECHNOLOGIES - Synthesize the effects of information and communication systems and subsystems as an

Topic: 3C - Vehicle Design

Days: 25

Subject(s): Technology

Grade(s): 9th, 10th, 11th, 12th

Know:

Understand:

Do:

3.4.12.D2. – Important USING AND MAINTAINING TECHNOLOGICAL SYSTEMS - Verify that engineering design is influenced by personal characteristics, such as creativity, resourcefulness, and the ability to visualize and think abstractly.

3.4.12.E4. – Compact INFORMATION AND COMMUNICATION TECHNOLOGIES - Synthesize the effects of information and communication systems and subsystems as an integral part of the development of the Information Age.

3.4.12.E6. – Essential MANUFACTURING TECHNOLOGIES - Compare and contrast the importance of science, technology, engineering and math (STEM) as it pertains to the manufactured world.

Scale

Proportion

Using AutoCAD with SolidWorks to develop parts for the projects.

integral part of the development of the Information Age.

Topic: 3E Transportation Modeling Project

Days: 10

Subject(s): Technology

Grade(s): 9th, 10th, 11th, 12th

Know:

3.4.12.A1. – Important
CHARACTERISTICS OF TECHNOLOGY - Compare and contrast the rate of technological development over time.

3.4.12.A2. – Essential
CORE CONCEPTS OF TECHNOLOGY - Describe how management is the process of planning, organizing, and controlling work.

3.4.12.A3. – Essential
TECHNOLOGY CONNECTIONS - Demonstrate how technological progress promotes the advancement of science, technology, engineering and mathematics (STEM).

3.4.12.C2. – Essential
ENGINEERING DESIGN - Apply the concept that engineering design is influenced by personal characteristics, such as creativity, resourcefulness, and the ability to visualize and think abstractly.

Understand:

Engineers use a variety of skills to design and fabricate a model vehicle.

Do:

3.4.12.A1. – Important
CHARACTERISTICS OF TECHNOLOGY - Compare and contrast the rate of technological development over time.

3.4.12.A2. – Essential
CORE CONCEPTS OF TECHNOLOGY - Describe how management is the process of planning, organizing, and controlling work.

3.4.12.A3. – Essential
TECHNOLOGY CONNECTIONS - Demonstrate how technological progress promotes the advancement of science, technology, engineering and mathematics (STEM).

3.4.12.B1. – Essential
EFFECTS OF TECHNOLOGY - Analyze ethical, social, economic, and cultural considerations as related to the development, selection, and use of technologies.

3.4.12.C2. – Essential
ENGINEERING DESIGN - Apply the concept that engineering design is influenced by personal characteristics, such as creativity, resourcefulness, and the ability to visualize and think abstractly.

3.4.12.C3. – Essential
RESEARCH & DEVELOPMENT, INVENTION & INNOVATION, EXPERIMENTATION/PROBLEM SOLVING AND TROUBLESHOOTING - Apply the concept that many technological problems require a multi-disciplinary approach.

3.4.12.D2. – Important
USING AND MAINTAINING TECHNOLOGICAL SYSTEMS - Verify that engineering design is influenced by personal characteristics, such as creativity, resourcefulness, and the ability to visualize and think abstractly.

3.4.12.E5. – Important
TRANSPORTATION TECHNOLOGIES - Explain how the design of intelligent and non-intelligent transportation systems depends on many processes and innovative techniques.

Design and fabricate a CO2 powered scale model of

Topic: 3E Transportation Modeling Project

Days: 10

Subject(s): Technology

Grade(s): 9th, 10th, 11th, 12th

Know:

Understand:

Do:

3.4.12.C3. – Essential RESEARCH & DEVELOPMENT, INVENTION & INNOVATION, EXPERIMENTATION/ PROBLEM SOLVING AND TROUBLESHOOTING
- Apply the concept that many technological problems require a multi-disciplinary approach.

3.4.12.D2. – Important USING AND MAINTAINING TECHNOLOGICAL SYSTEMS - Verify that engineering design is influenced by personal characteristics, such as creativity, resourcefulness, and the ability to visualize and think abstractly.

3.4.12.E5. – Important TRANSPORTATION TECHNOLOGIES - Explain how the design of intelligent and non-intelligent transportation systems depends on many processes and innovative techniques.

Engineering skills used to design and fabricate a CO2 powered scale model of a vehicle that meets the current year's stated design theme.

Aspects of the automotive design and engineering process, including research, conceptualization,

a vehicle that meets the current year's stated design theme.

Explore and experience aspects of the automotive design and engineering process, including research, conceptualization, development of drawings, prototype and model construction, and testing.

Topic: 3E Transportation Modeling Project

Days: 10

Subject(s): Technology

Grade(s): 9th, 10th, 11th, 12th

Know:

Understand:

Do:

development of drawings, prototype and model construction, and testing.

3.4.12.A2. - CORE CONCEPTS OF TECHNOLOGY -

Describe how management is the process of planning, organizing, and controlling work.

3.4.12.B1. - EFFECTS OF TECHNOLOGY -

Analyze ethical, social, economic, and cultural considerations as related to the development, selection, and use of technologies.

Topic: 4E Egg Car Crash Project

Days: 10

Subject(s): Technology

Grade(s): 9th, 10th, 11th, 12th

Know:

3.4.12.A1. – Important
CHARACTERISTICS OF TECHNOLOGY - Compare and contrast the rate of technological development over time.

3.4.12.A2. – Essential
CORE CONCEPTS OF TECHNOLOGY - Describe how management is the process of planning, organizing, and controlling work.

3.4.12.A3. – Essential
TECHNOLOGY CONNECTIONS - Demonstrate how technological progress promotes the advancement of science, technology, engineering and mathematics (STEM).

3.4.12.C2. – Essential
ENGINEERING DESIGN - Apply the concept that engineering design is influenced by personal characteristics, such as creativity, resourcefulness, and the ability to visualize and think abstractly.

Understand:

Mechanical and Industrial Engineers design, construct, and analyze safety restraint systems for the safety of the occupant in a vehicle.

Do:

3.4.12.A1. – Important
CHARACTERISTICS OF TECHNOLOGY - Compare and contrast the rate of technological development over time.

3.4.12.A2. – Essential
CORE CONCEPTS OF TECHNOLOGY - Describe how management is the process of planning, organizing, and controlling work.

3.4.12.A3. – Essential
TECHNOLOGY CONNECTIONS - Demonstrate how technological progress promotes the advancement of science, technology, engineering and mathematics (STEM).

3.4.12.C2. – Essential
ENGINEERING DESIGN - Apply the concept that engineering design is influenced by personal characteristics, such as creativity, resourcefulness, and the ability to visualize and think abstractly.

3.4.12.C3. – Essential
RESEARCH & DEVELOPMENT, INVENTION & INNOVATION, EXPERIMENTATION/PROBLEM SOLVING AND TROUBLESHOOTING - Apply the concept that many technological problems require a multi-disciplinary approach.

3.4.12.D2. – Important
USING AND MAINTAINING TECHNOLOGICAL SYSTEMS - Verify that engineering design is influenced by personal characteristics, such as creativity, resourcefulness, and the ability to visualize and think abstractly.

3.4.12.E5. – Important
TRANSPORTATION TECHNOLOGIES - Explain how the design of intelligent and non-intelligent transportation systems depends on many processes and innovative techniques.

Research restraint systems for vehicles.

Brainstorm ideas for the development of multiple systems for a vehicle.

Design a vehicle that will safely transport a raw egg

Topic: 4E Egg Car Crash Project

Days: 10

Subject(s): Technology

Grade(s): 9th, 10th, 11th, 12th

Know:	Understand:	Do:
<p>3.4.12.C3. – Essential RESEARCH & DEVELOPMENT, INVENTION & INNOVATION, EXPERIMENTATION/ PROBLEM SOLVING AND TROUBLESHOOTING - Apply the concept that many technological problems require a multi-disciplinary approach.</p> <p>3.4.12.D2. – Important USING AND MAINTAINING TECHNOLOGICAL SYSTEMS - Verify that engineering design is influenced by personal characteristics, such as creativity, resourcefulness, and the ability to visualize and think abstractly.</p> <p>3.4.12.E5. – Important TRANSPORTATION TECHNOLOGIES - Explain how the design of intelligent and non-intelligent transportation systems depends on many processes and innovative techniques.</p> <p>The definition of a safety restraint system.</p> <p>How safety restraint systems work.</p> <p>Materials used in safety restraint systems.</p> <p>3.4.12.A2. - CORE CONCEPTS OF</p>		<p>safely through a crash.</p> <p>Construct the vehicle using the supplied materials.</p> <p>Test the vehicle on a track.</p>

Topic: 4E Egg Car Crash Project

Days: 10

Subject(s): Technology

Grade(s): 9th, 10th, 11th, 12th

Know:

Understand:

Do:

TECHNOLOGY - Describe how management is the process of planning, organizing, and controlling work.		
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