

WAMC Lesson Plan

Name(s): Adam Rathjen

Lesson Title: Linear Automobile Depreciation

Date: 6-25-13

Text: Financial Algebra

Lesson Length: 2-3 days

Domain: A,F	
Big Idea (Cluster): CED2,3, IF6,7a,9, LE1b,5	
Common Core State Standards: A-CED2, A-CED3, F-IF6, F-IF7a, F-IF9, F-LE1b, F-LE5	
Mathematical Practice(s): MP.1, MP.2, MP.4, MP.5, MP.6	
Content Objectives: --Write, interpret, and graph a straight line depreciation equation.	Language Objectives: --Verify ELL students understand essential vocabulary with audio, visual representations
Vocabulary: --depreciate, appreciate, straight line depreciation, slope, straight line depreciation equation	Connections Prior to Learning --Graphing linear equations
Questions to Develop Mathematical Thinking: • What will a relationship between two variables look like graphically if it is changing at a constant rate?	Common Misconceptions: • straight line depreciation is a model and may not reflect actual depreciation values

Assessment (Formative and Summative):

<ul style="list-style-type: none"> Chapter problems (determined by instructor), teacher-student questions during notes, student work time observation
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Materials:

<ul style="list-style-type: none"> Book, computer stations, Microsoft Excel, graph paper, calculators, PowerPoint handouts

Instruction Plan:

Launch: Discuss depreciation, how a car loses value over time. (pg. 245)
Explore: --PPT and PPT notes (Teacher resource CD) Go through Example problems 1-6 together with class while students discuss and take notes and Problems at end of chapter --For example 6 use excel and the DB function to calculate the depreciation-discuss salvage, life, period, and month with students to use the function—Accountant may use this function to calculate depreciation
-When I observe students: check for understanding, probing questions
Questions to Develop Mathematical Thinking as you observe: What is the slope of the line, does it make sense when the value equals zero? What does changing the time scale from months to years do to the graph?
Answers: Slope indicates vertical and horizontal distances from one point to another, value in reality may never reach zero just from depreciation-other factors may bring it to zero, changing scale will make the line on the graph rise more gradually or quickly.
Summarize: Using straight line depreciation helps determine the value of a car. It is only a model and can be useful for car dealers, people in the automobile industry, and individual owners. Businesses also use depreciation to calculate the current value of assets beyond just automobiles.

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Career Application(s):

- Accounting/business -value of asset depreciation, used car buying and selling

21st Century Skills and Interdisciplinary Themes:

21st Century Interdisciplinary themes (Check those that apply to the above activity.)

- | | |
|---|--|
| <input type="checkbox"/> Global Awareness | <input checked="" type="checkbox"/> Civic Literacy |
| <input type="checkbox"/> Financial/Economic/Business/Entrepreneurial Literacy | |
| <input type="checkbox"/> Health/Safety Literacy | <input type="checkbox"/> Environmental Literacy |

21st Century Skills (Check those that students will demonstrate in the above activity.)

LEARNING AND INNOVATION

Creativity and Innovation

- Think Creatively
- Work Creatively with Others
- Implement Innovations

Critical Thinking and Problem Solving

- Reason Effectively
- Use Systems Thinking
- Make Judgments and

Decisions

- Solve Problems

Communication and Collaboration

- Communicate Clearly
- Collaborate with Others

INFORMATION, MEDIA & TECHNOLOGY SKILLS

Information Literacy

- Access and Evaluate Information

- Use and manage

Information

Media Literacy

- Analyze Media
- Create Media Products

Information, Communications and Technology (ICT Literacy)

- Apply Technology Effectively

LIFE & CAREER SKILLS

Flexibility and Adaptability

- Adapt to Change
- Be Flexible

Initiative and Self-Direction

- Manage Goals and Time

- Work Independently

- Be Self-Directed

Learners

Social and Cross-Cultural

- Interact Effectively with Others

- Work Effectively in Diverse Teams

Productivity and Accountability

- Manage Projects

- Produce Results

Leadership and Responsibility

- Guide and Lead Others

- Be Responsible to Others

Council

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