Interdisciplinary Lesson Plans For ABE/GED/ESL Instructors

Interdisciplinary Lesson Plans
For
ABE/GED/ESL Instructors

The lesson plans in this book are designed to foster critical thinking skills through teaching across the curricula. Each lesson plan contains at least three of the five areas tested on the GED test; additionally, each lesson has an activity designated to math or science. Graphic organizers, timelines, charts, reading samples, and realia are also basic components of the lesson plans.

Plans have been scripted to facilitate teacher use and also to lessen prep time for teachers. Each lesson also contains the following relevant information:

1. **The cognitive skill level of the activity using Bloom's taxonomy.**
2. **A debriefing/evaluation activity.**
3. **A real-life connection activity which explains how people in real life would use the skills taught.**
4. **An extension activity which allows the students to expand the skills developed through the activity.**
5. **Accommodations for adults with special needs.**

ABE/GED Interdisciplinary Lesson Plans

		Discipline				
		Math	Science	Social Studies	Language Arts Reading	Language Arts Writing
	Lesson Title					
1	Bob the Builder: Getting Ready to Carpet A Room	√			√	√
2	Solving Percent Problems	√			√	√
3	Perimeter	√			√	√
4	Wheel of Fortune (Probability and Statistics	√			√	√
5	Area Code Math	√		√	√	
6	Constructing A Simple Line Graph	√		√		√
7	The Tree	√		√		√
8	Only the Strong Survive		√	√		√
9	Spring Has Sprung	√	√	√	√	
10	The Flask – Multi-Disciplinary Problem Solving	√	√	√	√	√
11	Coming to America By Way of the North Pole		√	√		√
12	Cloning	√	√			√

ABE/GED Interdisciplinary Lesson Plans

		Discipline				
		Math	Science	Social Studies	Language Arts Reading	Language Arts Writing
Page	Lesson Title					
13	The Right to Vote	√		√		√
14	The Space Shuttle	√	√	√	√	√
15	Traveler's Advisory	√		√	√	
16	A Comparison of Mississippi's Campgrounds	√	√	√	√	√
17	Plan A Trip (Within the United States)	√		√		√
18	Traveling the State	√		√	√	
19	Got Milk?	√	√		√	√
20	Buyer Beware: How Hidden Messages In Advertising Affect Purchases	√		√		√
21	Shopping for Supper or Menu to Meal	√		√	√	√
22	Money/Money Management	√		√		√

ABE/GED Interdisciplinary Lesson Plans

		Discipline				
		Math	Science	Social Studies	Language Arts Reading	Language Arts Writing
Page	Lesson Title					
23	Life Skills – Usefulness of Consumer Products	√		√	√	
24	Reading Pictures	√			√	√
25	The Biological Clock Can Affect Student Performance	√	√			√
26	Getting the Most for Your Money	√			√	√

Interdisciplinary Lesson Plans

Area/Skill	**Cognitive Skill Level**	**Submitted by**	**Location**
Science, Math, Language Arts-Writing	Comprehension, Application, Analysis, Evaluation	Cheryl Smith	Rankin County Schools ABE

Activity Title: The "Biological Clock" Can Affect A Student's Performance

Goal/Objective
Science - Use an activity to determine how "task" performance can differ during the day.
Math - Calculate the average rate of each time measurement. Graph results for three days.
Writing - Record test results and analysis in student journals.

Lesson Outline
Students will use research skills to collect data. Students will organize the data and average the results of time measurements. Students will graph the results for each day. Students will record and analyze the collected data to form conclusions.

Introduction
External factors affect our daily lives, but there is also an internal factor, our "biological clock", which determines our performance each day.

Activity
Students will need a deck of cards, a clock/watch with a second hand, graph paper, and a chart with the headings – morning, midday, afternoon, and bedtime. Procedure—Shuffle the cards well. Time how long it takes to sort the cards into the four suits. Immediately repeat this procedure two more times. Average the three scores (time measurements) together and record the average score on the chart. Repeat this procedure for three days, with each day having four measurements recorded. Small groups will create graphs from the information on the charts, discuss findings and analyze how this information might be helpful. Students will record results in their journals.

Debriefing/Evaluation Activity
Students will discuss the procedures they used in this activity. Conclusions will be judged for validity and accuracy. Students will predict how this information could change their methods of time management in the future.

Real-Life Connection
Have students discuss how understanding their own biological clock would be helpful in preparing for the GED. Have students create a list of daily activities they would schedule for peak performance times and brainstorm on ways to avoid their "scheduled" performance slumps.

Materials/Texts/Realia/Handouts
(per student)
Handout sheet of instructions
Deck of cards
Watch or clock with second hand
Chart to record times
Graph paper
Pencil
Student journal

Extension Activity
Add a 2:00 a.m. measurement time one night to compare the differences in performance.

Repeat this lesson using different types of activities (ex. Higher level cognitive drills) to determine other factors that might influence the productivity of ABE students.

ESE Accommodations
Group students for activities when needed.
Allow students to pick an "at-home" partner.
Have calculators available.

Interdisciplinary Lesson Plans - Script

Area/Skill	Cognitive Skill Level	Submitted by	Location
Science, Mathematics, Language Arts-Writing	Comprehension, Application, Analysis, Evaluation	Cheryl Smith	Rankin County Schools ABE

Activity Title; The "Biological Clock" Can Affect a Student's Performance

Introduction
Say: Many external factors affect our daily lives, but within us lies a major force that determines how we performance each day. We are usually not even aware of the "biological clock" that determines our "rhythm" through the day.

Main Activity
Say: For the next three days you will be experimenting with your "biological clock" to determine how it affects your daily life. Each student will be collecting and analyzing data to see how they might make better use of their peak performance times.

Hand out instruction sheets to the class and discuss the directions. Hand out other materials required for the lesson. Ask if there are any questions.

Conduct a brief discussion around the following questions:

- When you graph your measurements for the 3 days do you predict that the daily graphs will be similar? Why?
- Do you already have an idea of how your daily graphs will look?
- What factors in your daily life will affect your measurements?
- Why do you think you need to take three measurements each time you perform this activity and calculate an average measurement?
- How do you average a set of three numbers? If there were five numbers, what would you do differently?

Closure/Conclusion
Ask students to share journal entries about their measurement results.
Ask students how these results could be used to obtain better study habits and test scores.
Ask students to share ideas about how they plan to change their daily routines to take better advantage of performance peaks.

Follow-up Lessons/Activities
Students enlist a family member or friend to try the activity. Students can show the friend how to design a graph and how to average numbers.
Students report on actual changes accomplished in their daily routines and the effects of those changes

Interdisciplinary Lesson Plans

Area/Skill Mathematics, Language Arts Reading, Language Arts Writing	**Cognitive Skill Level** Comprehension, Application, Synthesis	**Submitted by** May LeFlore	**Location** MS Dept. of Corrections Pre-Release Program

Activity Title: Reading Pictures

Goal/Objective: Language Arts, Reading: Use pictures from the Newspapers or Magazines. Have students to find the main idea (main point) by finding the details and tell what is the implied meaning from the picture.

Language Arts, Writing: Students will complete a handout with three columns: Detail, Main Idea, and Implied. This information is also placed on the blackboard for the feedback session where students may add other students' comments. For each picture shown, allow the students time to complete the information on handout. Then conduct a feedback session with the students. After the feedback session, have the students to write a paragraph stating the main idea, detail, and inference from one of the pictures.

Mathematics: Pictograph usually takes the form of a horizontal bar graph. Pictograph uses pictures or symbols to present statistical information. By using pictures, it makes it easy to understand the data and make immediate comparison. In a pictograph, there is a symbol and the symbol might represent people, barrels of oil, automobile, and etc. Whatever the symbol, it will most often look like the subject the pictograph. If you have any doubts about what that subject is, look at the title of the graph.

Lesson Outline: Students (prisoners) will use utilized pictures from newspapers and magazines to complete the worksheet and write paragraphs. Students will also research and organize a simple pictograph graph showing the number of prisoners from the house areas that were under the influence of alcohol or drug when their crime occurred.

Introduction: During the commission of a crime, researchers have found that many individuals are under the influence of alcohol and drug. Alcohol impairs one's ability to think rational or give them a false sense of confidence. Alcohol is a drug and it is the number one abused drug. Drugs are substances that alter the central nervous system. Show the class pictures accidents of drunk drivers.

Activity: The student will be divided into four groups and a packet of information will be provided: instructions, several magazines and newspapers, and worksheets. Students will develop a simple survey with three questions and organizing information for the pictograph. The students will be assigned to groups according to the one of four housing zones that they live on. A bottle will be the symbol for alcohol, and a cigarette will be the symbol for drug. Another pictograph will show those that may have been under the influence of alcohol and drug when the crime occurred. Students will organize the collected data and graphs to present findings. Students will analyze their graphs to draw conclusions.

Debriefing/Evaluation Activity: Students will briefly discuss how pictures affect our lives and how they are used to speak to us. Students will also discuss the development of pictograph and the results of data collection.

Real-Life Connection: There are specific designs that are used nation wide to identify restroom, telephone, money, music, no smoking area, handicapped parking, railroad cross, the red and gold arch, and others are useful for everyday survival.

Materials/Texts/Realia/Handouts

Magazines, Tape, Scissors, coloring pencils, butcher paper
Newspapers
Worksheets
Paragraph development
Rubric Scale to evaluate the paragraph
Rubric Scale to evaluate the pictograph
Transparency of various pictures
Source: Real-Life Reading Activities for Grades 6-12, Silver, James F. pp.123-143.
Graph Attack! Understanding Charts and Graphs. (Cambridge) pp.71-78
Survey

Extension Activity: The skills learned from Reading Pictures can be used in interpreting cartoon in science and social studies.

Survey Questions:
1. When you committed your crime(s), were you using alcohol? ___ Yes, ___No
2. When you committed your crime(s), were you using drug? ___ Yes, ____No
3. When you committed your crime(s), were you using drug and alcohol? ___ Yes, ___ No.

ESE Accommodations: Picture may be used in the beginning as method of teaching sight words.

Interdisciplinary Lesson Plans - Script

Area/Skill Mathematics Language Arts Reading, Language Arts Writing,	**Cognitive Skill Level** Comprehension, Application, Synthesis	**Submitted by** May LeFlore	**Location** MS Dept. of Corrections Pre-Release Program

Activity Title: **Reading Pictures**

Introduction:
Say: A picture is worth a thousand words. Nothing makes a greater impact than a visual impression of something that you are reading. Just as a paragraph has a main idea. The main idea is a general statement that tells you the major point of a passage. At least every picture has one main idea. With a picture it is possible to determine the main idea from one glance. Another characteristic of a paragraph is that there are supporting sentences that support the main idea. There are details in a picture that supports the main idea of the picture. One of the purposes of reading for details is to collect enough information to decide what is the main idea or inference. An inference is an opinion that one forms after discovering one or more details from the reading or the reviewing of the picture.

Main Activity:
Say: Today, students (prisoners), we will review some pictures to create a visual and mental understanding of certain objects to obtain the main focus and the inferred meaning of the pictures.
In reviewing pictures to find the main idea, ask these questions:

- What are the details? (Notice every detail of the picture.)
- Look at each character. Who are they? What are they saying? Who do they represent?
- Read every word and study the labels and descriptions.
- Are there any symbols? What do they mean? (Look for symbols and their meaning.)

To determine the inference of a picture, ask these questions:

- What is being implied?
- What are some predictions that can be made from the facts shown?

From the information gathered while reading the pictures, the students will write a paragraph.
Say: Pictures are used in all walks of life, and we will learn how pictures are used in making graphs. This type of graph is called pictograph.

Closure/Conclusion: Ask students to name and give the meaning of some symbols used daily.
Ask students how these symbols impact our lives and affect our thinking.

Follow-up Lessons/Activities: Divide the class into four groups. Allow each group to draw or develop their own picture from newspapers or magazine clippings. Each group will present its picture to the class, and explain the main idea and inference. Each group will also explain how the main idea and inference were determined.

Interdisciplinary Lesson Plans

Area/Skill Mathematics, Language Arts, Reading, Social Studies	**Cognitive Skill Level** Comprehension, Application, Analysis, Evaluation	**Submitted by** Robin Clements	**Location** Gulfport School District

Activity Title: Life Skills (Usefulness of Consumer Products)

Goal/Objective:
Students will learn the purpose and usefulness of consumer products in every day real-life skills.

Lesson Outline:
Students will be given a chart, pronunciation suggestions, cultural notes, and student activities that provide real-life skills.

Introduction:
As a consumer, it is important to be able to read product labels for product information, its ingredients, its warnings, and directions for usage.

Activity:
(1) Discuss the importance of being able to read product labels. Students will use the Products Chart and discuss what each product is for and how or why it is used.
(2) Discuss the importance of knowing container and unit measurements when purchasing products. (Use Container and Units Chart in Student Edition to determine correct measurements.

Debriefing/Evaluation Activity: Ask students why it's important to be able to read product labels.

Real-Life Connection: Have students bring in a product that they use or have used such as: cough medicine, aspirin, or sinus medicine. Have each student explain the label and discuss what could happen if directions are not followed.

Materials/Texts/Realia/Handouts

Products Chart
Container and Units chart
Posters: "At the Store" and "Products You Can Use"
Sample Pack: Crest, Folgers, Old Spice Deodorant, Tide, Downy, Day Quill, Pepto-Bismol, Dawn, and a shopping pad.

Extension Activity
Have students bring in a product with a caution or warning label and answer the following questions: What is the product? What are the warnings? What should people do if the product is used incorrectly? Is there a phone number the on the label for questions or comments?

ESE Accommodations
Team students with various functioning levels. Discuss and locate information on the product label. Example: What ingredients are in this product?

Interdisciplinary Lesson Plans - Script

Area/Skill	Cognitive Skill Level	Submitted by	Location
Mathematics, Language Arts-Reading, Social Studies	Comprehension, Application, Analysis, Evaluation	Robin Clements	Gulfport School District

Activity Title: Life Skills (Usefulness of Consumer Products)

Introduction:
Say: Today we are going to talk about purchasing products for our everyday use and why we need them. We are also going to talk about the importance of knowing how to read the product label.

Main Activity:
Say: What are some products that you buy that are essential to everyday. How do you use these products and why do you need them? Do you read the labels of the products you buy to what's in them? Pass out Products Chart and Student Workbook.

Say: Today we are going to talk about products we buy for everyday living and how these products are are useful to us. We are also going to talk about the importance of reading labels on products that we buy.

Say: Look at your Products Chart and let's talk about each product and how and why it is used. Discuss the chart.

Say: Look at your Container and Units Measurement Chart and tell me why it is important to know the measurements of the ingredients in the product. Discuss the chart.

Closure/Conclusion:
Discuss with students why it is important to be able to read and understand labels on products. How is this relevant to real life skills?

Follow-up Lessons/Activities:
Each student will write a short essay on how to read a product label and why it's important to be able to do so. Students may use vocabulary on page 12 of the Student Workbook to write their essay.

Interdisciplinary Lesson Plans

Area/Skill	**Cognitive Skill Level**	**Submitted by**	**Location**
Mathematics, Social Studies, Language Arts, Writing	Application	Ann Holland	Pascagoula School District

Activity Title: Money/Money Management

Goal/Objective:
To develop students' skills in money management and ability to solve ratio/proportion problems.

Math: Student will use provided statistics to calculate percent of increase in cost of living.

Social Studies: Using statistics, students will construct line or bar graphs.

Language Arts Writing: Students will write essay on topic related to money.

Lesson Outline
Introduction: Focus on helping students become aware of the value of money, how they can manage finances better, the money management principles involved, and how math skills (particularly percents and graphs) can help them with financial management.

Activity:
1) Discuss the cost of living and the drastic change through the years. Using statistics from internet and interviews, students will compute percents of increase and construct graphs to depict the changes.
2) Discuss the related economics and the social aspects of money management, especially the use and misuse of credit cards.

Debriefing/Evaluation Activity:
Ask students to define inflation and give examples of the impact of economics on their own lives.

Real-Life Connection:
Bring in money management techniques, such as those related to credit cards, budgeting, coupon clipping, and comparison-shopping.

Materials/Texts/Realia/Handouts
Newspapers
Steck-Vaughn Pre-GED Reading, p. 95
Steck-Vaughn Connections, p. 97
Graphic organizers
Information sheet of statistics
Calculators

Extension Activity
Math: Use proportion to demonstrate comparison shopping (price per unit); also good activity for developing calculator skills

ESE Accommodations
See separate lesson on shopping

Interdisciplinary Lesson Plans - Script

Area/Skill Math, Social Studies, Language Arts Writing	**Cognitive Skill Level** Application	**Submitted by** Ann Holland	**Location** Pascagoula School District

Activity Title: Money/ Money Management:

Students will learn about the value of money and how they can better manage their money.

Introduction:

Ask students about the current price of a movie ticket, candy bar, gallon of gas, etc. Then, ask students what they think they could have bought thirty years ago for a dollar. Next, assign students to read "Back When a Dollar Was a Dollar" (Steck-Vaughn's Pre-GED Reading, p. 95, or Connections Reading (Steck-Vaughn, p. 97). Question for understanding and ask for details.

Main Activity:

Lead group discussion of the cost of living, comparing current prices (housing, food, transportation, for instance), with prices for designated years or periods in the past. Suggest that students use the internet for research and also interview parents and grandparents for their memories of changes in the cost of living. Use older members of the class as special resources for this activity. Provide statistics for students to use as part of the activity.

Math: Have students calculate percentages of increase in prices using a math formula and a calculator. Have students construct line or bar graphs comparing costs of living for the current year and a specified past year.

Social Studies: Ask students to define inflation/recession and discuss reasons for economic changes. Have them identify components, such as moral/social values and political differences which impact economic change. Offer kinesthetic learners the opportunity to draw political cartoons illustrating economic concepts.

Language Arts Writing: Have students discuss the advantages and disadvantages of using credit, using a double bubble map for brainstorming and charting ideas. Then have students write an essay about the use and abuse of credit cards.

Closure/Conclusion: Talk about the importance of money management for consumers. Ask students to recommend how they might manage their money to meet financial demands. Talk about credit. Follow up with an additional math lesson centered on the high cost of credit card interest and have students compute the total cost of specified items when typical credit costs are added to the original purchase cost.

Follow-up Lessons/Activities:

Math: Encourage students to make a budget after recording expenditures. Suggest such money-saving strategies as clipping coupons and comparison shopping (good source for lessons on proportion). Invite guest speakers (home demonstration agents, power company reps, for example) to make presentations. Compare/contrast effects of being thrifty and encourage students to apply good money management principles in their personal lives. Language Arts Writing: Invite students to dream and write an essay entitled *If I Had a Million Dallars, I Would……*

Interdisciplinary Lesson Plans

Area/Skill ESL/Intermediate	**Cognitive Skill Level** Comprehension/Application/Synthesis/ Evaluation	**Correlation to Framework** Ann Holland	**Location** Pascagoula School District

Activity Title: Shopping for Supper or Menu to Meal

Goal/Objective: Students will learn about shopping in supermarkets and increase their vocabulary of related words.

Lesson Outline: Focus on the need of ESL students to make adjustments to shopping in our country and the need to become familiar with supermarkets and our currency.

Introduction: Display drawing of food sections in a supermarket. Provide food containers for display.

Activity:
1. Plan menu for a meal. In small groups or individually, have students make a shopping list. Classify food items.
2. Individually or in small groups, have students calculate the cost of the shopping list and count out play money to give to the teacher who will check figures and/or give change.
3. Dictate recipe for menu item.
4. Cook the recipe dish.
5. Describe the dish orally and/or in writing.

Debriefing/Evaluation Activity:
Discuss becoming better shoppers through making a grocery list, comparing prices at different stores, and using coupons.

Real-Life Connection: Students will be able to increase English language skills through the practical activities of shopping and cooking.

Materials/Texts/Realia/Handouts

White paper, play money, markers, food containers (pint, quart, gallon, liter bottle, box, jar, can package, bag), food sections and ads from newspapers (clip pictures of food with prices), brown bags for classifying pictures, cooking utensils.

Extension Activity
1. Include science lesson by providing copies of the food pyramid for lessons on proper nutrition.
2. Develop a similar plan for shopping for clothes.

ESE Accommodations:
While this lesson is designed explicitly for ESL students, it can be adapted to the proficiency level of the student. It can also be used effectively with the lower functioning non-ESL students.

Interdisciplinary Lesson Plans - Script

Area/Skill	**Cognitive Skill Level**	**Submitted by**	**Location**
ESL/Intermediate	Comprehension/Application/Synthesis/Evaluation	Ann Holland	Pascagoula School District

Activity Title: Shopping for Supper or Menu to Meal

Introduction:
Display a diagram of a supermarket drawn on large sheet of white paper attached to wall. Discuss the different food sections and develop working vocabulary. Have sample items (visual/tactile): pounds, pint, gallon, liter, quart, ounces, bunch, head, can, bag, box, jar, carton, bottle, package, etc.

Main Activity:
(Math, Reading, Writing)--Plan menu for meal. Have students create a shopping list and classify items as (1) meat/produce/dairy/ bakery-bread/pasta/ condiments/ canned items, and (2) as count (4eggs, for example) or non-count item (a pound of butter, for instance). Supply pictures of food items and have students classify them and place in labeled bags attached to supermarket diagram. For a math lesson, have students figure the cost of the shopping list using a calculator and pictures of food with prices and pay the teacher using play money.

Closure/Conclusion:
(Reading, Math)--Have students cook one of the menu items. Alternately, the teacher can cook and bring the item to class. (Our teacher baked a cake to share, which was kept out of sight until the end of the activity.) Dictate recipe for students to write down. Display baking pans, measuring items, ingredients, and demonstrate steps in cooking. Use a flow chart to show sequence of baking. Invite students to eat menu item they or the teacher has cooked.

Follow-up Lessons/Activities:
(Writing)--Have students write description of the cooked menu item. Use a bubble chart to list adjectives to describe the cake. Use picture dictionary to introduce foods that students may not be familiar with. Encourage students to make a native dish and share with the group, using above procedures.

Interdisciplinary Lesson Plans

Area/Skill	**Cognitive Skill Level**	**Submitted by**	**Location**
Mathematics, Social Studies, Language Arts Writing	Knowledge, Comprehension, Application, Analysis, Synthesis, & Evaluation	Jan West	Itawamba Community College

Activity Title: Buyer Beware – How Hidden Messages in Advertising Influences Our Purchases

Goal/Objective
Social Studies: Consumer Information – Use multiple strategies to construct, examine, and extend meaning of techniques used in advertising
Math: Represent data graphically; convert numbers into percentages; calculate probability.
Language Arts Writing: Use Analysis Chart to write paragraphs consisting of a well developed topic sentence and at least three supporting sentences.

Lesson Outline
Introduction: As a wise consumer, it is important to be aware of the psychological and emotional tactics used in printed and electronic media. This lesson will examine the different types of advertising techniques and explore how they influence our purchases.

Activity
1) Discuss the eight major concepts used in advertising (Information Sheet). Divide the class into groups of four. Ask each group to cut out ads from newspapers and magazines, decide which concept the ad uses, and sort ads into 8 stacks.
2) Have students construct a graph of how frequently each technique was used. Have students convert these numbers into percentages and construct a pie chart showing results. Discuss findings. Using the number of ads collected, ask students to find the probability of drawing a "testimonial ad" from the stack.
3) Have students select one ad from any stack and complete the questions on the Analysis Chart.
Each question should be answered in a paragraph containing a topic sentence and at least for supporting sentences.

Debriefing/Evaluation Activity:
Ask students to list ways that advertising might influence their purchases.

Real-Life Connection:

Have students select one product which they regularly purchase. Ask them to explain to the class: (1) how the packaging and promotion of the product affects their purchases and (2) what audience the ad targets and why.

Materials/Texts/Realia/Handouts

Newspapers and Magazines
Scissors
Calculators
Information Sheet 1: Advertising Techniques
Information Sheet 2: Formula for Calculating Percentages and Probability
Analysis Chart

Extension Activity

Investigate a popular company's website such as Nike (www.nike.com), Pepsi (www.pepsi.com), Pillsbury (www.pillsbury.com), etc. Identify the advertising technique used and the audience targeted. Do you think the technique used is effective? Why or why not? As a consumer, what suggestions would you make to the company?

ESE Accommodations

Pre-written list and descriptors of advertising techniques
Calculator
Cooperative Learning Groups

Interdisciplinary Lesson Plans - Script

Area/Skill	Cognitive Skill Level	Submitted by:	Location
Mathematics, Social Studies, Language Arts Writing	Knowledge, Comprehension, Application, Analysis, Synthesis, & Evaluation	Jan West	Itawamba Community College

Activity Title: Buyer Beware – How Hidden Messages in Advertising Influences Our Purchases

Introduction
Say: What comes to your mind when you hear the statement, "Choosy mothers choose Jif" or L'Oreal ads that boast, "I cost more but I'm worth it"? What does Tiger Wood's face or other celebrities' faces on a Wheaties box with the slogan, "Breakfast of Champions" suggest? Many factors influence our purchasing patterns: cost, attractive packaging, popularity of product; however, the emotional and psychological subtleties of advertising affect us as well. Today, we will examine how advertising uses specific techniques to influence our purchases.

Main Activity
Say: Let's examine the eight most commonly used advertising techniques. (Refer to the Information Sheet and allow time for discussion.)

Divide the class into groups of four and pass out newspapers, magazines, and scissors.

Say: Cut advertisements out of your newspapers and magazines. Sort them into stacks by advertising technique. Try to find at least one add for each of the advertising techniques.

Consumer Information
Say: Now that you have sorted the ads into stacks, answer the following questions: Which advertising technique was used most often? Why do you suppose it was the most prevalent? For each ad, was one particular audience targeted more than others? To which ads did you react emotionally? Which products would you purchase because of packaging, popularity, and cost? Why? Will the consumer information you now have affect your purchases in the future? How?

Math
Say: What kinds of math problems might we be able to solve using our ads? Refer to Information Sheet 2. 1) Using your eight stacks of ads, construct a graph showing the frequency of each technique. 2) Convert the numbers from your graph into percentages and construct a pie chart indicating the results. 3) Using the total number of ads collected by your group, determine the probability of drawing a "testimonial ad" from the stack on the first try.

Language Arts Writing
Say: Select one ad from all the groups and answer the questions on the Analysis Chart. The answer to each question should be a paragraph with a well developed topic sentence and at least four supporting sentences.

Closure/Conclusion
Ask students to name a product they regularly purchase and identify the advertising technique used in promoting the product. Ask students how the advertising technique influenced their decision to purchase the product.

Follow-up Lessons/Activities
Each group will create a "product" and design an ad persuading others to buy their product. Each group will present its ad to the class, identify the intended audience, and explain why the group chose that particular advertising technique to promote their product.

Information Sheet 1 – Advertising Techniques

• Bandwagon	Join the crowd; do what everyone else is doing
• Glittering Generalities	Uses vague and general words to influence; doesn't really say anything
• Testimonial	Using a well-known figure to endorse a product or speak out against a product
• Name-Calling	Attaches negative words to a product to create an unfavorable view. The idea is to cause us to react by emotion rather than logic.
• Transfer	Good feelings, ideas, looks, etc., transferred to the person for whom the product is intended
• Compare & Contrast	Indicates that "my product" is better than "this one" although no real proof is shown
• Repetition	Using the product name over and over again
• Emotional Words	Using "feel good" words to evoke positive feeling in the buyer

Information Sheet 2

- Converting the numbers from your line graph into percentages

  Determine the total number of ads collected. This number becomes the denominator of the fraction.

  The numerator of the fraction will be the total number of ads in a particular stack.

  Multiply the fraction by 100 to convert it into a percentage.

  Example: Group A collected a total of 60 ads. Of the 60 ads collected, 12 were testimonial ads. The fraction would be 12/60 or 1/5 if reduced.

  $$\frac{1}{5} \times 100 = 20\%$$

- Calculating Probability

  Probability is the likelihood that a particular event will occur. Probability is written as a ratio (fraction) of what you would like to happen (**desired outcome)** to the number of possible outcomes.

  Example: Group A collected 60 ads all totaled. Of these 10 were Compare & Contrast ads. 10 is the desired outcome. 60 is the possible outcome.

  $$\frac{10}{60} = \frac{1}{6}$$

  Therefore, the probability that a Compare & Contrast ad would be pulled from the stack of all ads is 1 out of 6 or approximately a 17% chance.

Analysis Chart

What person or organization is the source of the ad?

What audience do you think the ad is trying to reach?

What position have the people who placed this advertisement taken?

What kind of opinion or action are they hoping to get from readers?

Can you determine from the ad what other views people might have on this subject? Explain.

Do you recognize any advertising techniques you've seen in other advertisements? Explain.

What attention-grabbing and/or persuasive words did the advertisers use?

Interdisciplinary Lesson Plans

Area/Skill Language Arts Writing & Reading, Science, Math	**Cognitive Skill Level** Knowledge, Comprehension, Application, Analysis, Synthesis, & Evaluation	**Submitted by** Nora Newbill	**Location** MS Gulf Coast Community College

Activity Title: **GOT MILK?**

Goal/Objective: The student will demonstrate the ability to compare/ contrast, examine, construct graphs & evaluate nutritional values of food products.

Lesson Outline:
Introduction: Introduce guest speaker to reinforce the importance of proper nutrition and the necessity for reading label and to compare vitamins and nutrients. Speaker will also discuss with the students the recommended daily allowance based on weight and gender.

Activity 1

1) The students will receive copies of the content lists of the various cereal labels.
2) The students will be instructed to examine the different labels noting the similarities and differences.
3) Students will divide into groups and discuss the similarities and differences of the labels. They will then utilize the graphic organizers to organize the information. The students will select a group spokesperson to present their group's findings.

Activity 2

1) Have students take a piece of paper and fold it into quarters. Then instruct them to label the quarters accordingly as A, B, C and D.
2) Then pass out 2 ounce cups. Have students label the 2 ounce cups using the letters A, B, C, and D.
3) Have 4 students distribute the liquid samples of the various types of milk. They should check to make sure the milk from their container corresponds with the appropriate lettered cup.
4) The students will then be instructed to taste sample A and then write what they liked or disliked about the sample on the quartered page. Once this is completed the student will then proceed to the remaining samples and write down their responses. (The students will dispose of the cups used for the taste sample.)
5) The students will be divided into groups to discuss their answer and compile the results of their groups taste sampling.) Each individual in the group will design a graph to represent the results of the taste test. A student spokesperson will be appointed by the group to present the results of their group's findings.
6) A class scribe will help compile the information presented by each of the group responses. The students will discuss the accumulated information and its results.
7) Students will then calculate the percentage of students who preferred the A, B, C, or D sample. Students can formulate conclusions based on the information.

Debriefing/Evaluation Activity:
Students will recall the activity in their own words and tell how it relates to their individual lives. Students will use acquired information to create a graph of the nutrient list comparison; Write about the importance of proper nutrition and their health.

Materials/Texts/Realia/Handouts
Paper
Pencils
Markers
2 oz. cups
Milk (Whole, Skim, 1%, 2%)
Chalk/Chalkboard & Erasers
Flipchart & Easel
Milk Labels
Various Cereal Labels
Transparencies of labels
Overhead projector
Graphic organizer (comparison alley, Bridges & Venn)

Extension Activity
Investigate selected websites such as (www.pillsbury.com) and (www.greengiant.com) and use these sites to identify nutritional values of their products. What suggestions would you make to the company regarding sodium, fat, and sugar content?

ESE Accommodations
Pre-labeled paper and cup
Calculator
Cooperative Learning Groups
Student Scribe

Interdisciplinary Lesson Plans - Script

Area/Skill Language Arts: Writing& Reading, Science, Math	**Cognitive Skill Level** Knowledge, Comprehension, Application, Analysis, Synthesis & Evaluation	**Submitted by** Nora Newbill	**Lesson Number** MS Gulf Coast Community College

Activity Title: Got Milk?

Introduction

Say: We live in a world in which taste preference is everything. We are bombarded with an abundance of products that are quite similar in their shape, size and ingredients. Not all foods we eat based on taste are the best choice to maintain a healthy body. I have been told before, "If it taste good then it can't be good for you." Today, we will examine various food products and compare their nutritional values.

Say: We have a guest here today to help us become more aware of the nutritional values of foods and become better consumers. (Dr. Judith Edwards, Stone County Extension Director, MS State University) This individual will talk briefly about the food pyramid, vitamins, and minerals and how to determine how much of each you need based on your age.

Activity 1

Say: It is important to be aware of the differences in the foods we eat. We will examine and evaluate these differences in similar food items. Divide the class into 4 groups and pass out the cereal labels and graphic organizers. Tell the group to choose a spokesperson to summarize their group's findings.

Activity 2

With taste being important in your choices of food, let's distinguish what is truly a healthy choice in the milk we drink. Pass out paper cups and distribute milk samples. You will categorize the samples based on taste and nutritional value. Each group will devise a graph to relate the information gathered in their particular group. A group leader will be selected to relate the information. You will then use your calculators to convert the information to represent your group's answers in percentages. One person will compile the class statistics for evaluation of the class. We will discuss the class findings.

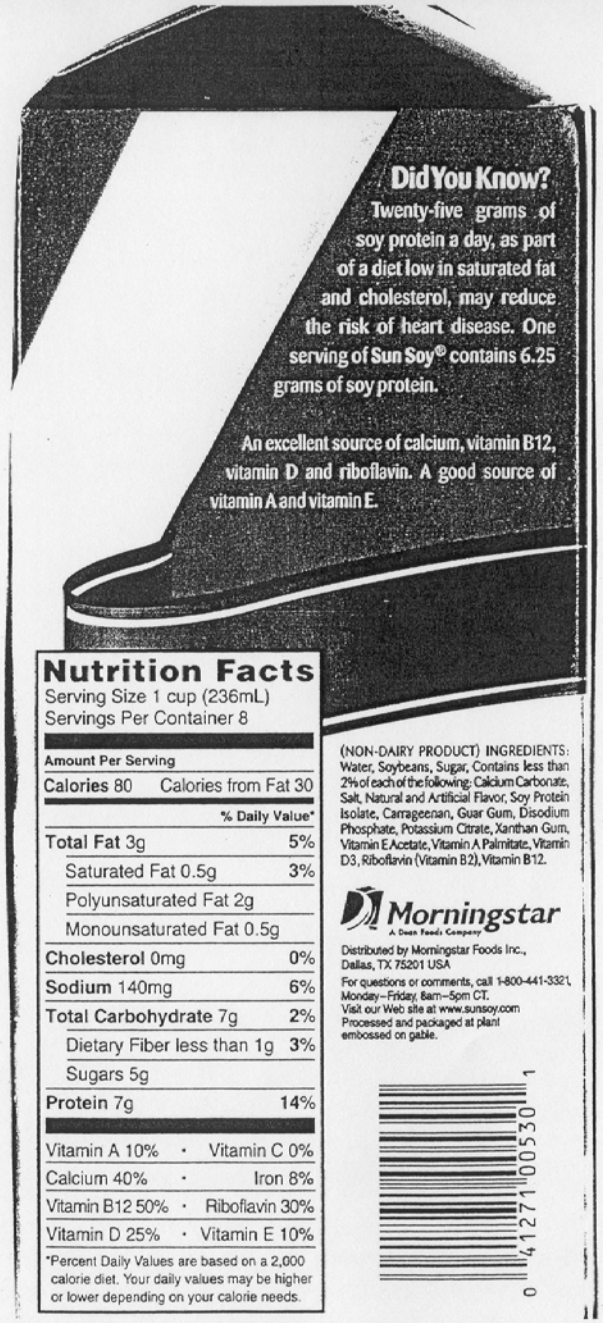
Closure/Conclusion

Ask the students to express in their own words evaluate how this information can be utilized in their daily life. Ask who would benefit from the being aware of the nutrient list of products. Why is this important?

Follow-up Lessons/Activities

The student will create their own comparison graphic organizer using label of foods that they consume. Students will evaluate the nutritional value of the product and write to the corporation and relate their personal findings.


PLT#281804-1ST
JANUARY 29
DAIRY FRESH BRAND
GRADE A PASTEURIZED
HOMOGENIZED
2% MILKFAT • VITAMIN A & D
REDUCED FAT MILK
37% LESS FAT THAN MILK • FAT REDUCED FROM 8g TO 5g
Nutrition Facts
Serving Size 1 Cup (236 mL)
Servings Per Container 8
Amount Per Serving
Calories 130 Calories from Fat 45
% Daily Value*
Total Fat 5g 8%
Saturated Fat 3g 15%
Cholesterol 20mg 7%
Sodium 130mg 5%
Total Carbohydrate 12g 4%
Dietary Fiber 0g 0%
Sugars 12g
Protein 8g
Vitamin A 10% • Vitamin C 4%
Calcium 30% • Iron 0% • Vitamin D 25%
* Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs.
Calories: 2,000 2,500
Total Fat Less than 65g 80g
Sat Fat Less than 20g 25g
Cholesterol Less than 300mg 300mg
Sodium Less than 2,400mg 2,400mg
Total Carbohydrate 300g 375g
Dietary Fiber 25g 30g
INGREDIENTS: REDUCED FAT MILK, WITH VITAMIN A PALMITATE & VITAMIN D3 ADDED.
KEEP REFRIGERATED
BEST WHEN PURCHASED BY DATE STAMPED ON PACKAGE.
DIST. BY DAIRY FRESH CORP., GREENSBORO, AL 36744
PROC. AND PKGD. AT PLANT STAMPED IN CODE.
0 72256 14214 8
1/2 GAL (1.89 L)
PLT#281804-1ST
JANUARY 25
DAIRY FRESH BRAND
GRADE A PASTEURIZED
HOMOGENIZED
VITAMIN D MILK
Nutrition Facts
Serving Size 1 Cup (236 mL)
Servings Per Container 8
Amount Per Serving
Calories 150 Calories from Fat 70
% Daily Value*
Total Fat 8g 12%
Saturated Fat 5g 25%
Cholesterol 30mg 10%
Sodium 120mg 5%
Total Carbohydrate 11g 4%
Dietary Fiber 0g 0%
Sugars 11g
Protein 7g
Vitamin A 4% • Vitamin C 4%
Calcium 30% • Iron 0% • Vitamin D 25%
* Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs.
Calories: 2,000 2,500
Total Fat Less than 65g 80g
Sat Fat Less than 20g 25g
Cholesterol Less than 300mg 300mg
Sodium Less than 2,400mg 2,400mg
Total Carbohydrate 300g 375g
Dietary Fiber 25g 30g
INGREDIENTS: MILK, VITAMIN D3.
KEEP REFRIGERATED
BEST WHEN PURCHASED BY DATE STAMPED ON PACKAGE.
DIST. BY DAIRY FRESH CORP. GREENSBORO, AL 36744
PROC. AND PKGD. AT PLANT STAMPED IN CODE.
0 72256 10115 2
1/2 GAL (1.89 L)
PLT#281804-1ST
JANUARY 17
DAIRY FRESH BRAND
GRADE A PASTEURIZED
HOMOGENIZED • VITAMIN A & D
1% MILKFAT LOWFAT MILK
Nutrition Facts
Serving Size 1 Cup (236 mL)
Servings Per Container 8
Amount Per Serving
Calories 100 Calories from Fat 20
% Daily Value*
Total Fat 2.5g 4%
Saturated Fat 1.5g 8%
Cholesterol 10mg 4%
Sodium 130mg 5%
Total Carbohydrate 12g 4%
Dietary Fiber 0g 0%
Sugars 12g
Protein 8g
Vitamin A 10% • Vitamin C 4%
Calcium 30% • Iron 0% • Vitamin D 25%
* Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs.
Calories: 2,000 2,500
Total Fat Less than 65g 80g
Sat Fat Less than 20g 25g
Cholesterol Less than 300mg 300mg
Sodium Less than 2,400mg 2,400mg
Total Carbohydrate 300g 375g
Dietary Fiber 25g 30g
INGREDIENTS: LOWFAT MILK, NONFAT MILK SOLIDS, VITAMIN A PALMITATE & VITAMIN D3 ADDED.
KEEP REFRIGERATED
BEST WHEN PURCHASED BY DATE STAMPED ON PACKAGE.
DIST. BY DAIRY FRESH CORP., GREENSBORO, AL 36744
PROC. AND PKGD. AT PLANT STAMPED IN CODE.
0 72256 14235 3
1/2 GAL (1.89 L)



Nutrition Facts

Serving Size 1 cup (236mL)
Servings Per Container 8

Amount Per Serving	
Calories 80	Calories from Fat 30
	% Daily Value*
Total Fat 3g	5%
Saturated Fat 0.5g	3%
Polyunsaturated Fat 2g	
Monounsaturated Fat 0.5g	
Cholesterol 0mg	0%
Sodium 140mg	6%
Total Carbohydrate 7g	2%
Dietary Fiber less than 1g	3%
Sugars 5g	
Protein 7g	14%

Vitamin A 10%	Vitamin C 0%
Calcium 40%	Iron 8%
Vitamin B12 50%	Riboflavin 30%
Vitamin D 25%	Vitamin E 10%

*Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs.

(NON-DAIRY PRODUCT) INGREDIENTS: Water, Soybeans, Sugar, Contains less than 2% of each of the following: Calcium Carbonate, Salt, Natural and Artificial Flavor, Soy Protein Isolate, Carrageenan, Guar Gum, Disodium Phosphate, Potassium Citrate, Xanthan Gum, Vitamin E Acetate, Vitamin A Palmitate, Vitamin D3, Riboflavin (Vitamin B2), Vitamin B12.

Morningstar
A Dean Foods Company

Distributed by Morningstar Foods Inc., Dallas, TX 75201 USA

For questions or comments, call 1-800-441-3321, Monday–Friday, 8am–5pm CT.
Visit our Web site at www.sunsoy.com
Processed and packaged at plant embossed on gable.

0 41271 00530 1

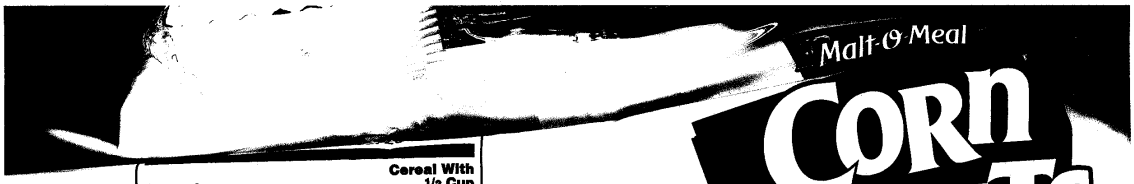
American Heart Association

Meets American Heart Association food criteria for saturated fat and cholesterol for healthy people over age 2.

See side panel for information concerning the relationship between saturated fat and heart disease.

HALF GALLON (1.89L)

KDE



Malt-O-Meal

CORN BURSTS

Amount Per Serving	Cereal	Cereal With 1/2 Cup Skim Milk
Calories	120	160
Calories from Fat	0	0
	% Daily Value**	
Total Fat 0g*	**0%**	**0%**
Saturated Fat 0g	**0%**	**0%**
Cholesterol 0mg	**0%**	**1%**
Sodium 120mg	**5%**	**8%**
Potassium 15mg	**0%**	**6%**
Total Carbohydrate 29g	**10%**	**12%**
Dietary Fiber 0g	**0%**	**0%**
Sugars 14g		
Other Carbohydrate 15g		
Protein 1g		
Vitamin A	15%	20%
Vitamin C	25%	25%
Calcium	0%	15%
Iron	10%	10%
Vitamin D	10%	20%
Thiamin	50%	50%
Riboflavin	50%	60%
Niacin	50%	50%
Vitamin B6	50%	50%
Folic Acid	25%	25%
Vitamin B12	25%	30%
Zinc	10%	10%

* Amount in cereal. One-half cup skim milk contributes an additional 65mg sodium, 6g total carbohydrate (6g sugars) and 4g protein.

**Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs:

	Calories:	2,000	2,500
Total Fat	Less than	65g	80g
Saturated Fat	Less than	20g	25g
Cholesterol	Less than	300mg	300mg
Sodium	Less than	2,400mg	2,400mg
Potassium		3,500mg	3,500mg
Total Carbohydrate		300g	375g
Dietary Fiber		25g	30g

Calories per gram:
Fat 9 • Carbohydrate 4 • Protein 4

Ingredients: Milled Corn, Sugar, Corn Syrup, Molasses, Salt, Sodium Ascorbate and Ascorbic Acid (Vitamin C), Niacinamide, Zinc Oxide, Reduced Iron, Turmeric, Pyridoxine Hydrochloride (Vitamin B6), Riboflavin (Vitamin B2), Thiamin Hydrochloride (Vitamin B1), Vitamin A Palmitate, BHT (preservative), Folic Acid, Vitamin B12 and Vitamin D.

Corn used in this product contains traces of soybeans.

Malt-O-Meal Co.

Betcha Can't Taste The Difference!™

Compare our Corn Bursts to Corn Pops cereal. You'll love the taste - and you'll love the price.

Malt-O-Meal bag cereals are not only delicious, they're the best value in the cereal aisle. Compare Malt-O-Meal cereals with the leading box brands, and you'll see they contain all of the same vitamins and minerals. We use only high quality ingredients, too, so you can count on the great taste and great nutrition in every bag.

Malt-O-Meal bag cereals are resealable! Our TopZip feature keeps your cereal fresher than other cereal packages. With a Resealable Pour Spout, our cereal bags are easy to open and close.

Make the smart choice with Malt-O-Meal cereals. For great taste, great nutrition and a great price, it's in the bag!

Compare Our Great Taste & Better Value

If you like these leading box cereals...	Try these Malt-O-Meal cereals...
Froot Loops®*	Tootie Fruities®
Lucky Charms®**	Marshmallow Mateys®
Golden Crisp®†	Golden Puffs®
Corn Pops®*	Corn Bursts®
Cap'n Crunch's Crunch Berries®††	Berry Colossal Crunch®
Frosted Mini-Wheats®*	Frosted Mini Spooners®
Fruity Pebbles®†	Fruity Dyno-Bites®
Cocoa Pebbles®†	Cocoa Dyno-Bites®
Apple Jacks®*	Apple Zings®
Honeycomb®†	Honey Buzzers®
Cocoa Puffs®**	Coco Roos®
Cinnamon Toast Crunch®**	Toasted Cinnamon Twists™
Golden Grahams®**	Honey Graham Squares™
Cheerios®**	Toasty O's®
Honey Nut Cheerios®**	Honey Nut Toasty O's®
Apple Cinnamon Cheerios®**	Apple Cinnamon Toasty O's®
Rice Krispies®*	Crispy Rice
Kellogg's Frosted Flakes®*	Frosted Flakes
Quaker Puffed Wheat	Puffed Wheat
Quaker Puffed Rice	Puffed Rice
Kellogg's Raisin Bran®*	Raisin Bran

FREE COUPON OFFER

TopZip™ Resealable Package

Tear Off Top At Perforation → Place Thumbs At Top of Blue Area And Separate To Open → Zip To Close

AIR TO CLOSE

Malt-O-Meal

Coco Roos®

Nutrition Facts

Serving Size: 3/4 Cup (30g)
Servings Per Package: About 19

Amount Per Serving	Cereal	Cereal With 1/2 Cup Skim Milk
Calories	120	160
Calories from Fat	10	10
	% Daily Value**	
Total Fat 1g*	**2%**	**2%**
Saturated Fat 0g	**0%**	**0%**
Polyunsaturated Fat 0g		
Monounsaturated Fat 0g		
Cholesterol 0mg	**0%**	**1%**
Sodium 190mg	**8%**	**11%**
Potassium 45mg	**1%**	**7%**
Total Carbohydrate 27g	**9%**	**11%**
Sugars 14g		
Other Carbohydrate 13g		
Protein 1g		
Vitamin A	10%	15%
Vitamin C	10%	10%
Calcium	10%	25%
Iron	25%	25%
Vitamin D	10%	20%
Thiamin	25%	25%
Riboflavin	25%	35%
Niacin	25%	25%
Vitamin B6	25%	25%
Folic Acid	25%	25%
Vitamin B12	25%	30%
Zinc	25%	25%

Not a significant source of Dietary Fiber.

* Amount in cereal. One-half cup skim milk contributes an additional 65mg sodium, 6g total carbohydrate (6g sugars) and 4g protein.

**Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs:

	Calories:	2,000	2,500
Total Fat	Less than	65g	80g
Saturated Fat	Less than	20g	25g
Cholesterol	Less than	300mg	300mg
Sodium	Less than	2,400mg	2,400mg
Potassium		3,500mg	3,500mg
Total Carbohydrate		300g	375g
Dietary Fiber		25g	30g

Calories per gram:
Fat 9 • Carbohydrate 4 • Protein 4

Ingredients: Sugar, Corn Meal, Corn Flour, Corn Syrup, Cocoa processed with Alkali, Partially Hydrogenated Soybean Oil, Wheat Starch, Modified Corn Starch, Fructose, Salt, Calcium Carbonate, Natural and Artificial Flavor, Beet Powder and Caramel Color, Trisodium Phosphate, Zinc Oxide and Reduced Iron, Vitamin C (Sodium Ascorbate), A B Vitamin (Niacinamide), Vitamin B6 (Pyridoxine Hydrochloride), Vitamin B2 (Riboflavin), Vitamin B1 (Thiamin Mononitrate), Vitamin A Palmitate (protected with BHT), A B Vitamin (Folic Acid), Vitamin B12 and Vitamin D.

Corn used in this product contains traces of soybeans.

Malt-O-Meal Co.
Minneapolis, MN 55402

Betcha Can't Taste The Difference!™

Compare our Coco Roos to Cocoa Puffs cereal. You'll love the taste - and you'll love the price.

Malt-O-Meal bag cereals are not only delicious, they're the best value in the cereal aisle. Compare Malt-O-Meal cereals with the leading box brands, and you'll see they contain all of the same vitamins and minerals. We use only high quality ingredients, too, so you can count on the great taste and great nutrition in every bag.

Malt-O-Meal bag cereals are resealable! Our TopZip feature keeps your cereal fresher than other cereal packages. With a Resealable Pour Spout, our cereal bags are easy to open and close.

Make the smart choice with Malt-O-Meal cereals. For great taste, great nutrition and a great price, it's in the bag!

Compare Our Great Taste & Better Value

If you like these leading box cereals...	Try these Malt-O-Meal cereals...
Froot Loops®**	Tootie Fruities®
Lucky Charms®*	Marshmallow Mateys®
Golden Crisp®†	Golden Puffs®
Corn Pops®**	Corn Bursts®
Cap'n Crunch's Crunch Berries®††	Berry Colossal Crunch®
Frosted Mini-Wheats®**	Frosted Mini Spooners®
Fruity Pebbles®†	Fruity Dyno-Bites®
Cocoa Pebbles®†	Cocoa Dyno-Bites®
Apple Jacks®**	Apple Zings®
Honeycomb®†	Honey Buzzers®
Cocoa Puffs®*	Coco Roos®
Cinnamon Toast Crunch®*	Toasted Cinnamon Twist
Golden Grahams®*	Honey Graham Squares
Cheerios®*	Toasty O's®
Honey Nut Cheerios®*	Honey Nut Toasty O's®
Apple Cinnamon Cheerios®*	Apple Cinnamon Toasty O's®
Rice Krispies®**	Crispy Rice
Kellogg's Frosted Flakes®**	Frosted Flakes
Quaker Puffed Wheat	Puffed Wheat
Quaker Puffed Rice	Puffed Rice
Kellogg's Raisin Bran®**	Raisin Bran

FREE COUPON OFFER

Go to www.malt-o-meal.com, Complete a survey and we'll send you valuable coupons for Malt-O-Meal cereals.
Limit one survey per household

Nutrition Facts

Serving Size: 3/4 Cup (30g)
Servings Per Package: About 20

Amount Per Serving	Cereal	Cereal With 1/2 Cup Skim Milk
Calories	130	170
Calories from Fat	30	30
	% Daily Value**	
Total Fat 3.5g*	**5%**	**6%**
Saturated Fat 0.5g	**3%**	**3%**
Polyunsaturated Fat 1g		
Monounsaturated Fat 1g		
Cholesterol 0mg	**0%**	**1%**
Sodium 210mg	**9%**	**11%**
Potassium 45mg	**1%**	**7%**
Total Carbohydrate 24g	**8%**	**10%**
Dietary Fiber 1g	**4%**	**4%**
Sugars 10g		
Other Carbohydrate 13g		
Protein 1g		
Vitamin A	10%	15%
Vitamin C	10%	10%
Calcium	10%	25%
Iron	25%	25%
Vitamin D	10%	20%
Thiamin	25%	25%
Riboflavin	25%	35%
Niacin	25%	25%
Vitamin B6	25%	25%
Folic Acid	25%	25%
Vitamin B12	25%	30%
Phosphorus	6%	15%
Magnesium	2%	4%
Zinc	25%	25%
Copper	2%	2%

* Amount in cereal. One-half cup skim milk contributes an additional 65mg sodium, 6g total carbohydrate (6g sugars) and 4g protein.

** Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs:

	Calories:	2,000	2,500
Total Fat	Less than	65g	80g
Sat. Fat	Less than	20g	25g
Cholesterol	Less than	300mg	300mg
Sodium	Less than	2,400mg	2,400mg
Potassium		3,500mg	3,500mg
Total Carbohydrate		300g	375g
Dietary Fiber		25g	30g

Calories per gram:
Fat 9 • Carbohydrate 4 • Protein 4

Ingredients: Whole Wheat, Sugar, Rice Flour, Partially Hydrogenated Soybean Oil, Fructose, Maltodextrin, Dextrose, Salt, Tricalcium Phosphate, Cinnamon, Soy Lecithin, Trisodium Phosphate, Caramel and Annatto Extract Color, Zinc Oxide and Reduced Iron (Mineral Nutrients), Vitamin C (Sodium Ascorbate), A B Vitamin (Niacinamide), Vitamin B6 (Pyridoxine Hydrochloride), Vitamin B2 (Riboflavin), Vitamin B1 (Thiamin Mononitrate), Vitamin A (Palmitate), A B Vitamin (Folic Acid), Natural Flavor, Nonfat Milk, Vitamin B12, Vitamin D. Freshness Preserved By BHT.

Contains Wheat and Milk Ingredients

Malt-O-Meal Co.
Minneapolis, MN 55402

Quality Guarantee

Malt-O-Meal

Toasted Cinnamon Twists

Betcha Can't Taste The Difference!™

Compare our Toasted Cinnamon Twists to Cinnamon Toast Crunch cereal. You'll love the taste - and you'll love the price.

Malt-O-Meal bag cereals are not only delicious, they're the best value in the cereal aisle. Compare Malt-O-Meal cereals with the leading box brands, and you'll see they contain all of the same vitamins and minerals. We use only high quality ingredients, too, so you can count on the great taste and great nutrition in every bag.

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Cap'n Crunch's Crunch Berries®††	Berry Colossal Crunch®
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Cocoa Pebbles®†	Cocoa Dyno-Bites®
Apple Jacks®**	Apple Zings®
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Cinnamon Toast Crunch®*	Toasted Cinnamon Twists™
Golden Grahams®*	Honey Graham Squares™
Cheerios®*	Toasty O's®
Honey Nut Cheerios®*	Honey Nut Toasty O's®
Apple Cinnamon Cheerios®*	Apple Cinnamon Toasty O's®
Rice Krispies®**	Crispy Rice
Kellogg's Frosted Flakes®**	Frosted Flakes
Quaker Puffed Wheat	Puffed Wheat
Quaker Puffed Rice	Puffed Rice
Kellogg's Raisin Bran®**	Raisin Bran

FREE COUPON OFFER

Go to www.malt-o-meal.com,
Complete a survey and we'll send you valuable coupons for Malt-O-Meal cereals.
Limit one survey per household annually.

* Lucky Charms, Cocoa Puffs, Cinnamon Toast Crunch, Golden Grahams, Cheerios, Honey Nut Cheerios, and Apple Cinnamon Cheerios are registered trademarks of

Nutrition Facts

Serving Size 1 Cup (50g/1.8 oz.)
Servings per Container About 10

Amount Per Serving	Cereal	Cereal with 1/2 Cup Vitamins A&D Fat Free Milk
Calories	180	220
Calories from Fat	5	5
	% Daily Value**	
Total Fat 0.5g*	**1%**	**1%**
Saturated Fat 0g	**0%**	**0%**
Cholesterol 0mg	**0%**	**0%**
Sodium 280mg	**12%**	**14%**
Potassium 100mg	**3%**	**9%**
Total Carbohydrate 43g	**14%**	**16%**
Dietary Fiber 2g	**9%**	**9%**
Sugars 15g		
Other Carbohydrate 26g		
Protein 3g		
Vitamin A	15%	20%
Vitamin C	25%	25%
Calcium	0%	15%
Iron	100%	100%
Vitamin D	10%	25%
Vitamin E	100%	100%
Thiamin	100%	100%
Riboflavin	100%	110%
Niacin	100%	100%
Vitamin B_6	100%	100%
Folic Acid	100%	100%
Vitamin B_{12}	100%	110%
Pantothenate	100%	100%
Phosphorus	10%	20%
Magnesium	8%	10%
Zinc	100%	100%
Copper	4%	6%

*Amount in cereal. One half cup of fat free milk contributes an additional 40 calories, 65mg sodium, 6g total carbohydrate (6g sugars), and 4g protein.

**Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs.

	Calories	2,000	2,500
Total Fat	Less than	65g	80g
Sat. Fat	Less than	20g	25g
Cholesterol	Less than	300mg	300mg
Sodium	Less than	2,400mg	2,400mg
Potassium		3,500mg	3,500mg
Total Carbohydrate		300g	375g
Dietary Fiber		25g	30g

Calories per gram: Fat 9 • Carbohydrate 4 • Protein 4

Ingredients: Rice, whole grain wheat, sugar, oat clusters (sugar, toasted oats [rolled oats, honey, brown sugar, soy oil], rolled wheat, crisp rice [milled rice, sugar, malt, salt], corn syrup, honey, cinnamon, artificial vanilla flavor, BHT [preservative]), high fructose corn syrup, salt, honey, malt flavoring, reduced iron, alpha tocopherol acetate (vitamin E), natural and artificial vanilla flavor, niacinamide, zinc oxide, sodium ascorbate and ascorbic acid (vitamin C), calcium pantothenate, yellow #5, pyridoxine hydrochloride (vitamin B_6), riboflavin (vitamin B_2), thiamin hydrochloride (vitamin B_1), BHT (preservative), vitamin A palmitate, folic acid, vitamin B_{12} and vitamin D.

CONTAINS WHEAT AND SOYBEAN INGREDIENTS.

Exchange: 3 Carbohydrates
The dietary exchanges are based on the *Exchange Lists for Meal Planning*, ©1995 by The American Diabetes Association, Inc. and The American Dietetic Association.

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CEREAL

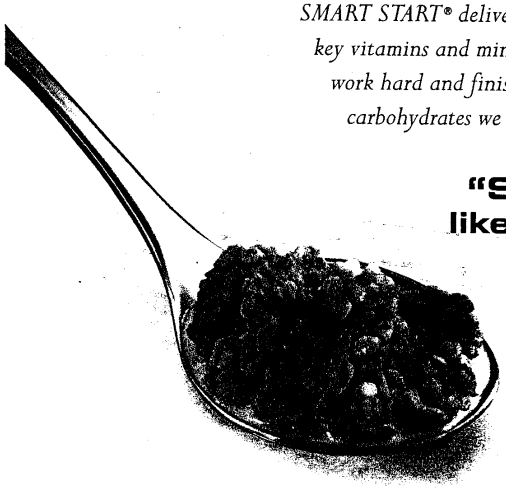
GREAT TASTE

SMART START® cereal from Kellogg is delicious. Oven-toasted, multigrain flakes are blended with oat and rice clusters to give you a hearty, satisfying crunch that holds up in milk. Plus, a touch of honey for just the right sweetness.

NUTRITIONALLY CHARGED

SMART START® delivers 100% of the daily values of key vitamins and minerals we need to start early, work hard and finish late each day. Plus, it has the carbohydrates we need for energy.

"Start the day like you mean it"



Nutrition Facts

Serving Size: 1 Cup (30g)
Servings Per Package: About 20

Per Serving	Cereal	Cereal With ½ Cup Skim Milk
Calories		
Calories from Fat	10	10
	% Daily Value*	
Total Fat 1g*	2%	2%
Saturated Fat 0g	0%	0%
Polyunsaturated Fat 0g		
Monounsaturated Fat 0g		
Cholesterol 0mg	0%	1%
Sodium 210mg	9%	11%
Potassium 60mg	2%	7%
Total Carbohydrate 25g	8%	10%
Dietary Fiber 2g	8%	8%
Sugars 13g		
Other Carbohydrate 10g		
Protein 2g		
Vitamin A	10%	15%
Vitamin C	10%	10%
Calcium	10%	25%
Iron	25%	25%
Vitamin D	10%	20%
Thiamin	25%	25%
Riboflavin	25%	35%
Niacin	25%	25%
Vitamin B6	25%	25%
Folic Acid	50%	50%
Vitamin B12	25%	30%
Zinc	25%	25%

* Amount cereal one-half cup skim milk contributes an additional 85mg sodium, 5g total carbohydrate (5g sugars) and 4g protein.

** Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs:

	Calories:	2,000	2,500
Total Fat	Less than	65g	80g
Saturated Fat	Less than	20g	25g
Cholesterol	Less than	300mg	300mg
Sodium	Less than	2,400mg	2,400mg
Potassium		3,500mg	3,500mg
Total Carbohydrate		300g	375g
Dietary Fiber		25g	30g

Calories per gram:
Fat 9 • Carbohydrate 4 • Protein 4

Ingredients: Whole Grain Oat Flour (includes the Oat Bran), Marshmallows (Sugar, Corn Syrup, Modified Corn Starch, Dextrose, Gelatin, Artificial Flavor, Yellows 5 & 6, Red 40, Blue 1), Sugar, Corn Syrup, Wheat Starch, Salt, Calcium Carbonate, Color Added, Trisodium Phosphate, Artificial Flavor, Zinc Oxide and Reduced Iron (mineral nutrients), Vitamin C (Sodium Ascorbate), A B Vitamin (Niacinamide), Vitamin B6 (Pyridoxine Hydrochloride), Vitamin B2 (Riboflavin), Vitamin B1 (Thiamin Mononitrate), Vitamin A Palmitate (protected with BHT), A B Vitamin (Folic Acid), Vitamin B12, Vitamin D. Vitamin E (Mixed Tocopherols) added to preserve freshness.

Malt-O-Meal Co.
Minneapolis, MN 55402

Quality Guarantee

Your purchase refunded or replaced if you are not satisfied. "Best If Used By" date and proof of purchase will be helpful. We invite your questions and comments. 1-800-743-3029 8am – 4pm (Central Time) Weekdays.

Malt-O-Meal

Marshmallow Mateys

Betcha Can't Taste The Difference!™

Compare our Marshmallow Mateys to Lucky Charms cereal. You'll love the taste - and you'll love the price.

Malt-O-Meal bag cereals are not only delicious, they're the best value in the cereal aisle. Compare Malt-O-Meal cereals with the leading box brands, and you'll see they contain all of the same vitamins and minerals. We use only high quality ingredients, too, so you can count on the great taste and great nutrition in every bag.

Malt-O-Meal bag cereals are resealable! Our TopZip feature keeps your cereal fresher than other cereal packages. With a Resealable Pour Spout, our cereal bags are easy to open and close.

Make the smart choice with Malt-O-Meal cereals. For great taste, great nutrition and a great price, it's in the bag!

Shapes Ahoy!

Set sail for a tasty adventure with Malt-O-Meal Marshmallow Mateys cereal. Buried under crunchy, toasted oat anchors lies a bounty of marshmallow shapes. Which treasures will you uncover? Grab your spoon and start digging – it's time to start the treasure hunt!

Meet "Pete" the green parrot. He'll be your captain today. If it's treasure you're after, he knows the way.

Can you find
The pirate's hat?
This one's blue –
Imagine that!

Buried treasure is hard to find. You'll need a shovel – the yellow kind!

Thunk! You've hit something. A red treasure chest! Now keep on digging to find the rest.

Golden coins are buried deep. If you find one, it's yours to keep!

Purple sea horses prance around, and pretty pink seashells just wait to be found.

Jewels and gems of yellow and blue. Who will find these? Will it be you?

FREE COUPON OFFER

Go to www.malt-o-meal.com. Complete a survey and we'll send you valuable coupons for Malt-O-Meal cereals.
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TOPZIP is a registered trademark of AMI/RecPro Inc., Atlanta, GA www.ami-recpro.com

Interdisciplinary Lesson Plans

Area/Skill	**Cognitive Skill Level**	**Submitted by**	**Location**
Mathematics, Social Studies, Language Arts Reading	Application	GED 2002 National Training Institute Participant – Tyann Douglas	West Virginia

Activity Title: Traveling the State

Goal/Objective
LAR – Read, interpret, respond to and apply information from written materials.
Math – Perform multiple operations using decimals; solve problems using math to compute travel time, gas consumption, and travel cost.
Social Studies (Geography): Interpret data from charts, graphs, tables, and maps.

Lesson Outline
All students receive a map of the state and pamphlets describing state parks. Students will use the materials to plan a trip to a state park.

Introduction
The state has many state parks that are ideal for family vacations, reunions, and conferences. Because the parks are very different, each appeals to a different group of people. You will select a state park based on personal preferences and individual interest and plan a trip for family or friends, including cost for food, lodging, and recreational activities.

Activity
A packet of information will be provided each student that will include: instructions, map, pamphlets, and worksheets. Small groups will research and report to the whole group about one park. Each individual will plan a one-week trip to a selected state park. Using the worksheets, students will identify pertinent information about the park they have selected; compute mileage and cost of gasoline, cost of lodging and food, and cost of activities.

Debriefing/Evaluation Activity
Students will briefly discuss their choice of a state park and the total cost for planned trip. Math estimations and computations for costs will be evaluated for accuracy.

Real-Life Connection
Discuss the importance of budgeting for vacations well in advance to be certain to have enough money to enjoy the experience.

Our state has a lot to offer and can be less expensive than a trip to the beach or Disney World.

Materials/Texts/Realia/Handouts

Map
Park pamphlet
Worksheets
Paper/pencil
Calculators

Extension Activity
Role-play contacting a park to make reservations for a one-week stay.

Compare activity results with Internet site www.mapblast.com

ESE Accommodations
Team students to accommodate various functioning levels to complete the activities.

Allow use of calculator for computations.

Provide pre-written information.

Allow for hands-on activities

Interdisciplinary Lesson Plans - Script

Area/Skill	Cognitive Skill Level	Submitted by:	Location
Math, Social Studies, Language Arts Reading	Application	GED 2002 National Training Institute Participant-Tyann Douglas	West Virginia

Activity Title: Traveling the State

Introduction
Say: Vacations can be a very enjoyable time. However, vacations need preparation in order to be successful. Today we will plan a vacation in the state. Students will be divided into groups and review each of the state parks. These groups will make a report to the whole group. Then each student will decide which park they wish to visit on vacation. Each student will receive a map and park pamphlets and an activity packet to assist in their vacation planning.

Main Activity
Say: Let's look at the map, pamphlets, and activity packet. In order to understand the requirements for this project, locate your activity sheets. Sheet 1 will require you to choose a park and answer some questions about that park. Sheet 2 is a mileage data sheet to assist in calculating transportation expenses and an estimating worksheet to assist in estimating the total cost for vacation. Using overhead transparencies of each of the activity sheets, discuss each item on each activity sheet.

Using overhead transparencies of each activity sheet, discuss each item on each of the activity sheets.
Say: Do you have any questions?

Closure/Conclusion
Complete the items in the activity sheets.
Ask: Students to briefly discuss their choice of state parks and the cost of their travel.
Ask: Does this information provide incite value for planning your family vacation?
Ask: Students to discuss the importance of budgeting for vacations and having enough money to enjoy the experience.

Follow-up Lessons/Activities
Say: After you have completed the activity, you may want to compare your findings with the findings found on the web site www.mapblst.com

TRAVELING

Park Data Sheet

1. Which park have you chosen for your trip?

   _____

2. Where is the park located?

   County _____

   Nearest Town _____

   Region of State _____

3. What types of lodging are available?

   _____

   _____

4. Which type of lodging have you chosen for your visit?

   _____

5. Cost of lodging per night? _____

   Cost of lodging per week _____

6. Are pets allowed at the facility? _____

7. Are facilities handicapped accessible? _____

TRAVELING

Transportation Data Sheet

1. Make and model of your car? _____
2. EPA Fuel Mileage for your car? _____
3. What was your point of origin (home)? _____
4. What is your destination (park)? _____
5. Estimate how many miles you will travel one way. _____
6. Estimate how much fuel this trip will take. _____
7. What is the price per gallon of grade of gasoline you use? _____
8. Estimate how much fuel will cost for the round trip. Show computation.

_____

Estimation Worksheet

Plan the trip so you won't have to come home early because you ran out of money! *Show computations on all estimations!*

9. How many people are going on this trip with you? _____
10. Estimated cost of fuel: _____
11. Estimated cost for food: _____
12. Estimated cost per lodging: _____
13. Estimated cost for entertainment, admissions, souvenirs, and other miscellaneous expenses: _____

TOTAL ESTIMATE FOR TRIP: _____

ESTIMATED AVERAGE EXPENSE PER DAY (7 DAYS): _____

Interdisciplinary Lesson Plans

Area/Skill	**Cognitive Skill Level**	**Submitted by**	**Location**
Social Studies, Mathematics, Language Arts Writing	Knowledge, Comprehension, Application, Analysis, Synthesis	GED 2002 National Training Institute Participant – Krista Clay-Lieffring	Kansas

Activity Title: Plan A Trip (Within the United States)

Goal/Objective
Students will be able to read maps and interpret information given as well as applying to real life situations.

Lesson Outline
Introduction
Read and interpret map. Formulate a travel and plan and a travel route. Incorporate geography, history, mathematics, and research in project. This exercise may be done in groups or individually.

Activity
Plan a trip, having students access the internet or encyclopedias to determine their destination. Use class site as a home base. From the internet or encyclopedia information, have students write a short report on their destination using practical, historical, or geographical information in report. Distribute copies of an atlas or maps. Discuss map symbols and distance gauge. Have students manually calculate the distance from home base to destination. Then calculate fuel needed to make a round trip and the estimated cost at current fuel prices. Give specific information about the vehicle and current fuel price. Round to the nearest cent. Check mileage calculated manually with mileage calculated from www.mapquest.com . See how the two compare.

Debriefing/Evaluation Activity
Were the students able to understand the road map? Would they be able to apply this knowledge to different scenarios using different vehicles and different prices per gallon on fuel? Have students keep a record for a week on the differences in fuel prices and bring to class.

Real-Life Connection
This is an activity that reflects everyday life. The ability to read a map means that a person also has the ability to understand symbols, follow directions, and calculate basic math.

Materials/Texts/Realia/Handouts

Extension Activity

ESE Accommodations

Interdisciplinary Lesson Plans - Script

Area/Skill	Cognitive Skill Level	Submitted by:	Location
Social Studies, Mathematics, Language Arts Writing	Knowledge, Comprehension, Application, Analysis, Synthesis	GED 2002 National Training Institute Participant – Krista Clay-Lieffring	Kansas

Activity Title: Plan A Trip (Within the United States)

Introduction

Say: Having the ability to read and interpret information on maps is a valuable like skill. People use maps to plan vacations, re-locate, plan a commuting route, etc. This activity incorporates math, geography, research, and writing in solving real life situations. Using maps from the atlas, you will determine the distance between your home base here at the adult ed. Cent and your selected destination. For this activity, choose a destination that can be reached in one day (500 miles or less – based on an 8 hr. day at 65/mph). You will use the internet to research your destination, gathering important geographical and/or historical information to include in a one page, double-spaced report. Give reasons in your report why you are choosing this destination. You will calculate the distance in miles and determine that amount of fuel you will use. For this exercise, your vehicle will be a 1998 Nissan Sentra, which gets 35/mpg. The current price for unleaded fuel is $1.79/gallon.

Main Activity

Say: Use the internet or encyclopedias to determine destination and gather information for an informative paper. Using historical and geographical information, state reasons why this destination has been selected. Next, using the atlas, discuss map symbols and mileage chart and gauge. Determine mileage using mileage table from map or, for an internet exercise, go to www.maquest.com. This site allows you to calculate mileage to a destination round trip or one way. It will also give you the best route to travel. Next calculate the fuel usage at $1.79/gallon for the determined mileage. Divide total miles traveled by the 35/mpg your auto gets. Remember, this is a round trip calculation.

Closure/Conclusion

Recheck math figures; Did the student remember to double the mileage for a round trip? Are the decimal points in the correct place?

Do you think you will be able to use this exercise information to plan a road trip in the future?

Try this exercise with different destinations and different vehicles. Compare the cost of the trip traveling in a Suburban vs. the Sentra.

Follow-up Lessons/Activities

1. Estimate how much money you will need for fuel if you must commute 40 round trip miles to work every day. You weekly salary is $325/wk.
2. You've been offered a job in town for $280/wk. Is it profitable for you to continue to commute or would you benefit from taking less pay and not commuting?

Student Information Page

Plan a trip; access internet or encyclopedia to determine your destination. From this information, write a short report on why you selected your destination using practical, historical, or geographical information.

Find a map of your travel route from the atlas or state map. Calculate the distance using your center as a home base to your destination. Then calculate fuel needed to make a round trip and the estimated cost of the fuel. Your vehicle will be a 1998 Nissan Sentra, which averages 35/mpg. The current price for unleaded fuel is $1.79/gallon.

Use the following formulas:

Calculate the number of miles round trip (miles one way x 2) and divide by the mpg your auto gets.

Take the answer and multiply by the current cost of fuel per gallon.

Round to the nearest cent.

Check your mileage calculation on www.mapquest.com. How did your manual mileage calculation compare with the internet calculation?

Interdisciplinary Lesson Plans

Area/Skill Science, Social Studies, Math, Language Arts Writing	**Cognitive Skill Level** Comprehension, Application, Analysis, Evaluation	**Submitted by** Kim Wilson-JPS; Lisa Hatfield-EMCC; Donna Jenkins-GCLC; Linda Malbrough-GCLC; Julia Floyd-ICC

Activity Title: A Comparison of Mississippi Campgrounds

Goal/Objective: 1. Gather Information;
2. Use Charts and Maps;
3. Use Measurement and Distance.

Lesson Outline

Introduction:
Mississippi's best kept secret is its beautiful state parks and campgrounds. This lesson will help students become more familiar with these assets by determining how much they already know. Students will be required to compute calculations of distance and gas required, read maps, and design an itinerary for organizational skills.

Activity:
1. Students will visit two state parks in their geographic area to obtain information pamphlets.
2. Students will gather specimens (leaves, pine cones, etc.) and label items by type and area in which the items were collected.
3. Students will complete the Comparison Alley Worksheet.
4. Students will write a comparison and contrast essay on the two parks.
5. Students will compare prices and facilities available.

Debriefing/Evaluation Activity:
Compare and discuss the students' results. Create a classroom display using the specimens collected. Design and advertisement for one or both of the parks visited.

Real-Life Connection:
Plan for future vacations.
Preservation of our parks.

Materials/Texts/Realia/Handouts

ABC's Of It All Worksheet
Park Pamphlets
Rand McNally Atlas or website
A Golden Nature Guide; A Guide to Familiar American Trees
Comparison Alley Worksheet

Extension Activity
Create a classroom display of specimens collected at parks.

Design an advertisement for one of the two parks visited.

ESE Accommodations

Check on handicap accessibility to the parks. If it is not feasible to physically visit the parks, have students write a letter asking for informational pamphlets or research websites for information. Complete assignment in class.

Calculator

Cooperative Learning Groups

Interdisciplinary Lesson Plans - Script

Area/Skill Science, Social Studies, Math, Language Arts Writing	**Cognitive Skill Level** Comprehension, Application, Analysis, Evaluation	**Submitted by:** Kim Wilson-JPS; Lisa Hatfield-EMCC; Donna Jenkins-GCLC; Linda Malbrough-GCLC; Julia Floyd-ICC

Activity Title: A Comparison of Mississippi Campgrounds

Introduction

Say: Mississippi has numerous state parks. There are many things we can learn from a visit. We are going to compare and analyze data from two parks. We will be visiting two state parks so let's begin by first deciding what we hope to learn using the ABC's Of It All Worksheet. Let's plan our itinerary and calculate the distance and supplies needed. (Allow student time to complete the ABC's Worksheet, choose two parks and make calculations.)

Main Activity

Say: Now we're going to visit the parks. The park ranger/official plans to tour us through the grounds. Remember, you need to be very attentive and gather you specimens following the park official'

Upon return say: Now we're going to discuss our experience in a group. While discussing, let's list the things learned and what we've seen. We'll use this list in a writing activity to compare and contrast our two visits. (Allow students time to complete the Comparison Alley Worksheet.)

Closure/Conclusion

I hope this has been a great experience for you. You've learned some valuable experiences that can help you later in life. For instance, at some point you may want to plan a family vacation. Also, you hopefully are more aware of the need to preserve our parks, forests, and wildlife.

Follow-up Lessons/Activities

Let's use the specimens collected to design and guild a classroom display to help us remember these trips.

Let's also break in groups and develop an advertising brochure for each of the parks for future visitors to utilize in planning their visits.

COMPARISON ALLEY

Compare/Contrast

Subject:

Differences

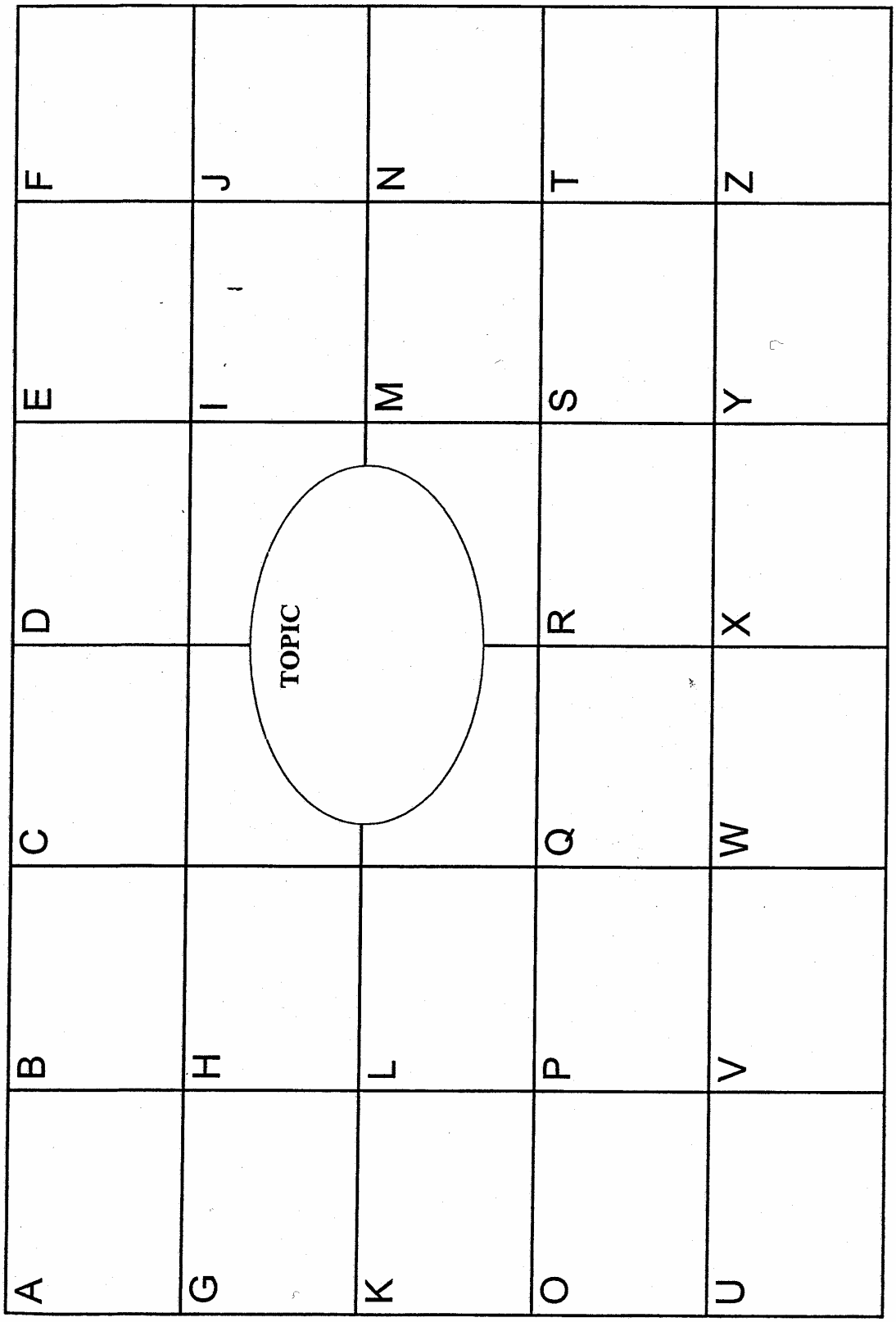
Comparison Alley

Similarities

Differences

Subject:

THE ABC'S OF IT ALL



Interdisciplinary Lesson Plans

Area/Skill Mathematics, Social Studies, Science, Language Arts-Reading	**Cognitive Skill Level** Comprehension, Application, Analysis, Synthesis, Evaluation	**Submitted by** Lucille Jordan	**Location** Jackson Public Schools ABE/GED

Activity Title Traveler's Advisory

Goal/Objective
Participants will use their math skills, social studies and science knowledge, and writing abilities to plan a vacation which includes interruptions and rescheduling.

Lesson Outline

Introduction Individuals who travel or who take vacations must be aware of unexpected situations that may occur that will cause an interruption in travel arrangements. This lesson will examine options that one may consider when completing travel plans.

Activity
1) Have participants identify states and vacation sites that are located in each geographical area – Northeast, Southeast, Northwest, Southwest, and Central.
2) Have participants compare and contrast modes of transportation.
3) Have participants plan a vacation—to include transportation, lodging, weather needs, food, site-seeing, and unexpected circumstances

Debriefing/Evaluation Activity
Ask participants if they would recommend trip to someone else and what did they learn that they didn't already know.

Real-Life Connection
Invite a travel agent to come to discuss with the class what is involved in the detailed planning of a trip

Materials/Texts/Realia/Handouts
U.S. Map
Road Map
Prices for modes of transportation
Calculator
Brochures
Checklist

Extension Activity
Compare taking the trip during various seasons of the year.

ESE Accommodations
Calculator
Provide pre-written information

Interdisciplinary Lesson Plans - Script

Area/Skill	**Cognitive Skill Level**	**Submitted by:**	**Location**
Mathematics, Social Studies, Science, Language Arts-Reading	Comprehension, Application, Analysis, Synthesis, Evaluation	Lucille Jordan	Jackson Public Schools ABE/GED

Activity Title Traveler's Advisory

Introduction Say: When you start thinking about taking a vacation, visiting a relative, a friend, or even attending an event in another state or section of the country, many factors influence our decision: time, dates, weather, distance, transportation, and cost. Today, we will plan our favorite vacation from start to finish.

Main Activity Say: Today, let us examine the five sections of the U.S. –Northeast, Southeast, Northwest, Southwest, and Central. We will also examine popular tourist attractions in each section.

Divide the class into five groups.

Say: Let us compare and contrast modes of transportation; be sure to include cost, convenience, travel time, etc. in choosing your mode of transportation.

Closure/Conclusion
How did planning your trip affect your choice of travel and accommodations?

Follow-up Lessons/Activities

Bring brochures and present them to the rest of the class.

Interdisciplinary Lesson Plans

Area/Skill Science, Social Studies, Mathematics, Language Arts Reading, Language Arts Writing	**Cognitive Skill Level** Knowledge, Comprehension, Application, Analysis, Synthesis, & Evaluation	**Submitted by** Kim Smith	**Location** Northeast MS Community College

Activity Title: The Space Shuttle

Goal/Objective:
Students will demonstrate a general understanding of space exploration using the space shuttle.

Lesson Outline:
Introduction
As Americans, we have enjoyed the marvels of space over the last few decades. Occasionally, we need to stop and research all the contributions that space exploration has made to us in our everyday lives. This lesson will help us to examine the workings of a space shuttle and to realize the importance of it.

Activity:

1) Divide the class into groups of three. Each group should read the shuttle material provided. Then each student should describe a space shuttle launch that they have seen.
2) Each group should construct the space shuttle using the model available. Students may make their own pieces or use the puzzle available to make pieces.
3) Each student should diagram and label the flight profile of a space shuttle.
4) Each student should read the articles about the *Challenger Disaster* and write a paragraph entitled, "Of what importance is the Challenger Disaster to me?"
5) Each student should construct a graph using times and speeds as outlined on the handout.

Debriefing/Evaluation Activity:
Ask students to explain space exploration using a space shuttle and give reasons that we should study the shuttle.

Real-Life Connection:
Have students go to www.teachersfirst.com and launch a space shuttle. Then research on the web to find something that we use that is a contribution of space exploration.

Materials/Texts/Realia/Handouts

1) World Book Encyclopedia, "Space Exploration: Space Shuttles"
2) www.space.about.com "A NASA Tragedy: The Space Shuttle Challenger Disaster
3) Fly the Space Shuttle by Carole Stott, DK Publishing, Inc.
4) The Amazing Pop-Up Pull-Out Space Shuttle by David Hawcock, DK Publishing, Inc.
5) USA Today, "Debate Raged Night Before Doomed Launch," January 22, 1996
Construction Paper, Scissors, Glue
Graphs
Handouts
Activities inside Fly the Space Shuttle

Extension Activity
1) Eat dehydrated food and discuss the nutritional value.
2) List the criteria fro the personal items that are allowed on the shuttle.
3) Compute the area of the fuel tanks and the rocket booster.
4) Compare and contrast space sickness with a sickness on earth.
5) When you reach space, imagine the view. Describe what you see.
6) There are six people on the shuttle. Devise a schedule of daily activities so that someone always on duty.

ESE Accommodations
Handouts

Interdisciplinary Lesson Plans - Script

Area/Skill Language Arts Reading, Language Arts Writing, Math, Science, Social Studies	**Cognitive Skill Level** Knowledge, Comprehension, Application, Analysis, Synthesis, Evaluation	**Submitted by:** Kim Smith	**Location** Northeast MS Community College

Activity Title: The Space Shuttle

Introduction:

Say: Have you ever watched TV and seen the Space Shuttle launch? Have you ever been to the Kennedy Space Center? Space, rockets, shuttles, and satellites have become such a part of our lives that we really don't think that much about them. We need to think about space exploration and what it means to us. Today we will examine the space shuttle and learn more about the reasons we need space exploration.

Main Activity: Divide the class into groups of three and pass out books and supplies.

Say: Each group should read the books provided. You may either read them silently or read them aloud to one another. (Some may finish early; give them a break until the others finish.)

Say: Using this model as your guide, I would like for you to construct the space shuttle. You may make your own pieces, or you may use the puzzle available to make pieces. (This may take several class sessions.)

Say: Now that you have constructed a space shuttle, using the books provided, diagram and label the flight profile of a space shuttle. (This may also take more than one session.)

Say: Do you remember the Challenger Disaster? The anniversary of that disaster is January 28. On that date, 17 years ago, the Challenger Shuttle, which carried a female teacher named Christa McAuliffe, exploded in flight. Do you remember that day? Let's read some articles about that disaster.

Say: Now that you have read about the disaster, I would like for you to write a paragraph of sever complete sentences entitled, "Of what importance is the Challenger Disaster to me?"

Say: New let's see what kind of math we can learn from these lessons on the space shuttle. Take out your graphs, your books, and your handouts. Using the takeoff + times in the book, I want you to describe the times that the space shuttle reaches the speeds on your handouts. Then graph your answers.

Closure/Conclusion

Review the main working of a space shuttle and talk about the benefits.

Follow-up Lessons/Activities

See list of extension activities.

Interdisciplinary Lesson Plans

Area/Skill Social Studies, Language Arts Writing, and Math	**Cognitive Skill Level** Comprehension, Application, Analysis and Evaluation	**Submitted by** Beverly Messemore	**Location** Jones County Junior College ABE/GED

Activity Title: The Right to Vote

Goal/Objective:
Social Studies: Read, interpret, and analyze constitutional amendments: Construct a time line of historical events relating to voting; Evaluate the responsibilities of voters.
Language Arts-Writing: Construct a paragraph that properly develops an idea and contains a topic sentence, supporting details, and a conclusion.
Math: Calculate the percentage of a number; Construct a circle graph.

Lesson Outline: Students will read, discuss, and analyze constitutional amendments related to voting and will construct a time line of important historical events relating to voting. They will also interpret voter responsibilities and qualifications and complete a voter registration application.

Introduction: As an American citizen, we have the right and responsibility to vote. Students will study the constitutional amendments that provide the right to vote, research the qualifications of voters, and learn how to register to vote.

Activity: A packet of information will be provided which will include constitutional amendments, voter registration information, historical events, worksheets and web sites. After reading and discussing the constitutional amendments, students will construct a timeline of the history of voting, listing important events, dates, and persons. Students will complete worksheet on voting history which requires analysis skills. After studying the voter registration information, students will be able to determine voter eligibility and describe how a person registers to vote. Language Arts-Writing Connection: Students will write a paragraph about voter rights and responsibilities (See sample topics). Math Connection: Students will conduct a survey of the class to determine eligible voters and the number of class members who voted in last election; then students will calculate percentages.

Debriefing/Evaluation Activity: Students will discuss voting rights and responsibilities and discuss the importance of their participation in the voting process. Worksheets and time lines will be evaluated for accuracy; paragraphs will be evaluated by rubric.

Real-Life Connection: Real life relevance can be easily demonstrated by the student's ability to complete a voter registration application and return it to the proper authorities; determine his/her voting precinct; participate in the election process; and show an increased interest in and appreciation of the political process.

Materials/Texts/Realia/Handouts

Information/Activity packet
Paper/pencils
Worksheets
Rubric for writing evaluation

Extension Activity

Technology link: Have students explore various web sites to determine the voting rights and responsibilities of citizens in other countries.

ESE Accommodations

Reading tutors to help read constitutional amendments: word bank for vocabulary development: calculators for math activity.

Interdisciplinary Lesson Plans - Script

Area/Skill Social Studies, Language Arts-Writing, and Math	**Cognitive Skill Level** Comprehension, Application, Analysis, and Evaluation	**Submitted by** Beverly Messemore	**Location** Jones County Junior College ABE/GED

Activity Title: The Right to Vote

Introduction Say: As an American citizen, you no only have a right to participate in the voting process, but you also have a responsibility to Participate. In this lesson we will investigate how these freedoms were given and how to participate in the voting process.

Main Activity Say: The right to vote is one of the most important rights and responsibilities of American citizens. The Constitution of the United States provides for a democracy in which every citizen will have a voice in determining the course that the country will take. Today we will discuss the history of voting in the United States and read the constitutional amendments that granted American citizens the right to vote. We will also investigate the qualifications of persons wishing to vote in the State of Mississippi, examine a voter registration application, and complete a voter registration form. We will also write a paragraph about voting history, responsibilities and the voter registration process. Another activity in this unit will be to calculate the percentages of eligible voters in this class and the percentage of registered voters who voted in the last election.

Closure/Conclusion: Discuss the responsibilities of voters and the responses to the activity worksheet. Determine if each student knows the voter qualifications, how to register, and where to register.

Follow-up Lessons/Activities: Provide students with information necessary to register to vote, post election dates, names and addresses of elected officials, and other articles related to voting and elections. Local legislators could also be invited to speak to students on the topic of how a bill becomes a law. A mock election is another excellent activity related to the voting unit.

“The Right to Vote”

Information/Activity Packet

“The History of Voting in the United States”
“The History of Voting in the United States Worksheet”
“Does My Vote Really Make a Difference?”
Sample Topics for the “Right to Vote” Writing Unit
Math Activity for the “Right to Vote” Unit
Mississippi Voter Registration Information
Mississippi Voter Registration Application
Voter Registration Worksheet
Right to Vote Word Bank
Related Web Sites

Student_____
Date_____
Class_____

The History of Voting in the United States

Suffrage, the right or privilege of voting to elect public officials and to adopt or reject legislation, dates to ancient times. In Greece, all freemen were expected to take part in the government of their city. In Rome the common citizens, called plebs, were granted the right to elect tribunes to intercede for them. The idea that the people under a government should have a voice in selecting the leaders did not gain support until the 17th century.

A major principle of U.S. democracy is representative government in which the people delegate powers to elected officials. The elected officials represent the will of the people. The people exercise power through elections. Citizens, with their vote, have the opportunity to have their voices heard and to influence government. Representative government must represent all people. Originally, the only people allowed to vote in the United States were white men who owned property. Voting rights have been extended to include white men without property, blacks, Native Americans, naturalized immigrants, and women.

The U.S. Constitution originally specified that each state would determine the qualifications for its voters; however, amendments to the Constitution have prohibited states from denying voting privileges on the basis of sex, race, and other conditions. Some of the major events in the history of voting in the United States are as follows:

1) The 14th Amendment (1868) potentially enlarged the scope of suffrage to all citizens.

2) The 15th Amendment (1870) secured the right to vote for black males.

3) The 19th Amendment (1920) secured the right to vote for women.

4) The 24th Amendment (1964) prohibited poll taxes, literacy tests, and other devices to determine qualification of voters.

5) The 26th Amendment (1971) extended suffrage to citizens 18 years old.

6) The Motor Voter Act of 1993 required states to make mail-in voter registration post cards available in motor vehicle, public assistance and military recruitment offices.

NOTE: An excellent web site for this unit is www.pbs.org/democracy/votinginamerica/

References

"Constitution of the United States," Microsoft® Encarta® Online Encyclopedia 2002 http://encarta.msn.com © 1997-2002 Microsoft Corporation.
"Election," Microsoft® Encarta® Online Encyclopedia 2002 http://encarta.msn.com © 1997-2002 Microsoft Corporation.
"Suffrage," Microsoft® Encarta® Online Encyclopedia 2002 http://encarta.msn.com © 1997-2002 Microsoft Corporation.

The History of Voting in the United States Worksheet

Read the following Constitutional Amendments and summary of other Congressional Acts related to voting. Refer to this information to answer the questions that follow.

The Fourteenth Amendment— 1868—"All persons born or naturalized in the United States, and subject to the jurisdiction thereof, are citizens of the United States and of the State wherein they reside. No State shall make or enforce any law which shall abridge the privileges or immunities of citizens of the United States; nor shall any State deprive any person of life, liberty, or property, without due process of law; nor deny to any person within its jurisdiction the equal protection of the laws."
The Fifteenth Amendment— 1870—"The right of citizens of the United States to vote shall not be denied or abridged by the United States or by any State on account of race, color, or previous condition of servitude."
The Nineteenth Amendment— 1920—"The right of citizens of the United States to vote shall not be denied or abridged by the United States or by any State on account of sex."
The Twenty-Fourth Amendment— 1965—"The right of citizens of the United States to vote in any primary or other election for President or Vice President, for electors for President or Vice President, or for Senator or Representative in Congress, shall not be denied or abridged by the United States or any State by reason of failure to pay any poll tax or other tax."
The Twenty-Sixth Amendment—1971 —"The right of citizens of the United States, who are eighteen years of age or older, to vote shall not be denied or abridged by the United States or by any State on account of age."
The National Voter Registration Act of 1993(The Motor Voter Act)-Required states to make mail-in voter registration post cards available in motor vehicle license offices, public assistance offices, and military recruitment offices.

1) In 1872 Susan B. Anthony was arrested as she tried to vote in the presidential election because women did not have the right to vote. In what year were women granted the right to vote and by what amendment?
A. 1870—The Fifteenth Amendment
B. 1920—The Nineteenth Amendment
C. 1971—The Twenty-Sixth Amendment

2) In 1890 the Mississippi Legislature called a Constitutional Convention that required a $2.00 poll tax. What was the intended purpose of the poll tax?
A. To prevent women from voting.
B. To help pay for the elections
C. To prevent African Americans from voting.

3) Which of the following groups of people were granted the right to vote first?
A. women
B. African Americans
C. eighteen year olds

4) In the year 1969 which of the following American citizens could not vote?
A. A 19 year old soldier serving in Viet Nam.
B. A 30 year old white woman receiving food stamps.
C. A 50 year old black man working in Jackson, Mississippi.

5) What is the intended purpose of the Motor Voter Act of 1993?
A. To insure that only people who owned a motor vehicle could vote.
B. To make voter registration forms easily available to citizens.
C. To insure that voters would have transportation to the voting polls.

Answers: 1) B 2) C 3) B 4) A 5) B

Does My Vote Really Make a Difference?

"Just" one vote can and often does make a difference in the outcome of an election.

EXAMPLES FROM HISTORY

Source: http://www.ss.ca.gov/elections/Outreach/civics/pg_13.ht

- In 1645 one vote gave Oliver Cromwell control of England.
- In 1649 one vote caused Charles I of England to be executed.
- In 1776 one vote gave America the English language instead of German.
- In 1839 one vote elected Marcus Morton as the Governor of Massachusetts.
- In 1868 one vote saved President Andrew Johnson from being removed from office.
- In 1923 one vote gave Adolph Hitler leadership of the Nazi Party.

****

Source: http://www.fec.gov/pages/faqs.htm

EXAMPLES IN FEDERAL ELECTIONS

- In the 1829 election for the U.S. House of Representatives in Kentucky's 2nd District, Jackson Democrat Nicholas Coleman defeated National Republican Adam Beatty 2,520 to 2,519.

- In the 1854 election for the U.S. House of Representatives in the 7th District of Illinois, Democratic candidate James C. Allen bested Republican William B. Archer 8,452 to 8,451.

RECENT EXAMPLES IN NONFEDERAL ELECTIONS

- In 1994, Republican Randall Luthi and Independent Larry Call tied for the seat in the Wyoming House of Representatives from the Jackson Hole area, with 1,941 votes each. A recount produced the same result. Mr. Luthi was finally declared the winner when, in a drawing before the State Canvassing Board, a PingPong ball bearing his name was pulled from the cowboy hat of Democratic Governor Mike Sullivan.

- In 1997, South Dakota Democrat John McIntyre led Republican Hal Wick 4,195 - 4,191 for the second seat in Legislative District 12 on election night. A subsequent recount showed Wick the winner at 4192 - 4,191. The State Supreme Court, however, ruled that one ballot counted for Wick was invalid due to an over vote. This left the race a tie. After hearing arguments from both sides, the State Legislature voted to seat Wick 46-20.

Suggested Topics for the "Right to Vote" Writing Unit

Select one of the topics below and write a paragraph stating your point of view. The paragraph must have a topic sentence, supporting ideas, and a conclusion. Use interesting details, facts, or other information to support your ideas.

1) "Why Should I Participate in the Voting Process?"
2) "Does My Vote Really Matter?"
3) "Why Is the Right to Vote So Important?"
4) "Every American Has a Right and a Responsibility to Vote"
5) "Voting Determines the Course of America"
6) "The History of Voting in America"
7) "How Did Americans Acquire the Right to Vote?"
8) "What Effects Did the 15th (or the 14th, 19th, 24th or 26th) Amendment Have on Voting in the United States?"
9) "Why Do Many Citizens Fail to Vote?"
10) "Factors Which Affect Voter Apathy"

Math Activity for "Right to Vote" Unit

Instructions:

1) Conduct a poll of all students in the class to determine the number of eligible voters, the number of registered voters, and the number of registered voters who voted in the last election. (For an extension of the activity, students may collect additional information such as age or sex of each class member)
2) Using the information from the poll, calculate the following:

    A) What percent of the entire class is eligible to vote?

    B) What percent of females/males are eligible to vote?

    C) What percent of the entire class has registered to vote?

    D) What percent of females/males have registered to vote?

    E) What percent of the registered voters voted in the last election?

    F) What percent of registered females/males voted in the last election?

3) Using the information from the poll, construct a pie graph which show registered and non-registered eligible voters in the class.

4) Construct another pie graph which shows the number of registered voters who voted in the last election as compared to the number of registered voters who did not vote.

5) Construct a third pie graph which compares the number of registered female voters to the number of registered males voters or comparing registered voters in the 18-30 age range to registered voters in the 30-50 age range and voters in the 50 and above age range.

Source: http://www.sos.state.ms.us/elections/voterinfoguide.asp

MISSISSIPPI VOTER REGISTRATION INFORMATION

Every U.S. citizen who possesses the following qualifications is entitled to register to vote in Mississippi:

- An inhabitant of Mississippi, except persons judicially declared mentally incompetent; At least 18 years old (or will be by the date of the next general election);
- A resident of the state, county, and supervisor's district for 30 days;
- Has never been convicted of any crime listed in Section 241 of the Mississippi Constitution (murder, rape, bribery, theft, arson, obtaining money or goods under false pretense, perjury, forgery, embezzlement, or bigamy).
- Once you are registered, you generally remain registered indefinitely, unless you move or no longer meet one of the qualifications to vote.

WHERE TO REGISTER

You may register to vote either by mail or by visiting your county Circuit Clerk (usually in the county courthouse) or Municipal Clerk (usually in City Hall).

You also may register to vote when applying for or renewing your driver's license, or when applying for services at numerous state and federal government agencies.

REGISTERING BY MAIL

Any Mississippian qualified to register to vote may do so by mail. For an application, call your county Circuit Clerk, or pick one up at the courthouse, public library or other participating government office. Mail-in voter registration forms are also available from the Secretary of State's Office.

WHEN TO REGISTER

If you register by mail: Your application must be postmarked at least 30 days prior to the election in which you want to vote.

If you register in the clerk's office: You must register at least 30 days prior to the election in which you want to vote. In most cases, Circuit Clerks and Municipal Clerks are required to register voters at any time during usual business hours of 8 a.m. until 5 p.m.

WHERE TO VOTE

After registering, you will be given your precinct name and the location of that precinct's polling place. The polls are open 7 a.m. until 7 p.m. each election day.

ABSENTEE VOTING

Some registered voters are eligible to vote absentee because of age, health or work demands, or their affiliation with the U.S. armed forces. For example, voters who will be outside their county of residence on election day are entitled to vote by absentee ballot. Please check with your Circuit or Municipal Clerk to determine if you are entitled to vote absentee and to learn the procedures for doing so.

Absentee voting deadlines come early to help assure your ballot is counted. If you know you will vote absentee, contact your Circuit or Municipal Clerk at least two weeks before the election. For more information, consult "Absentee Voting in Mississippi," a publication of the Secretary of State's Office.

IMPORTANT ELECTION DATES

Year	Primary	Runoff	General
2002	June 4th	June 25th	Nov. 5th
2003	August 5th	Aug. 26th	Nov. 4th
2004	June 1st	June 22nd	Nov. 2nd
2005	May 3rd	May 17th	Jun. 7th

PRIMARY ELECTIONS

Party candidates are nominated through primary elections. A voter may vote in either party's primary, and cast a ballot for that party's nominees to the general election. If no candidate receives a majority of the votes in a primary, a run-off is held between the top two vote-getters.

A voter who votes in the primary of one party may not "crossover" to vote in the run-off of another party.

By law, primary elections are run by each political party's county or municipal executive committee with oversight from the state party executive committees. Circuit and Municipal Clerks also provide support.

GENERAL ELECTIONS

Candidates are elected to office in general elections. The general election ballot contains the names of the party nominees, plus any independent or third party candidates who have qualified. For most elective offices, the candidate who receives the highest number of votes is elected. Offices in which candidates do not run in party primaries (most judicial offices, county election commissioner, some others) require a run-off if no candidate receives a majority vote in the general election.

By law, general elections are run by county or municipal Election Commissioners with limited oversight from the State Board of Election Commissioners. Circuit and Municipal Clerks also provide support.

FOR MORE INFORMATION

Contact your Circuit Clerk, Municipal Clerk, Election Commissioner, or the Secretary of State's Office for further assistance.

SECTION 1.

Mississippi Voter Registration Application

IMPORTANT !

* If you are not registered to vote where you now live, you can use this form to register to vote or report that your name or address has changed.
* If you have questions, call your county Circuit Clerk or call the Secretary of State at 1-800-829-6786.

To register to vote, you must:

* be a U.S. citizen
* live in the state and county for at least 30 days before voting
* be 18 years old by the next general election
* have not been convicted of a crime that bars you from voting or have had your rights restored as required by law
* have not been declared mentally incompetent by a court

IMPORTANT !

* Complete Sections 2, 3, and 4, then mail or hand deliver it to your county Circuit Clerk at least 30 days before the election in which you want to vote. County addresses are on the back.
* If you are qualified and the information on your form is complete, you will be mailed a voter card that tells you where to vote.

SECTION 2. **"PLEASE PRINT OR TYPE IN BLUE OR BLACK INK"**

Mr. / Mrs. / Miss / Ms. (Last Name) (First Name) (Middle / Maiden) (Circle if Appropriate) Jr. Sr. II III IV

Home Address (Use 911 Address Not P O Box)

Social Security Number

City County State Zip

Mailing Address: (if different from home address)

Date of Birth Mo. Day Year

Race (optional)

City State Zip

SECTION 3. IF YOU WERE PREVIOUSLY REGISTERED UNDER A DIFFERENT NAME OR ADDRESS, LIST THAT NAME OR ADDRESS

Last Name First Name Middle / Maiden Name

Street Address

City County State Zip

SECTION 4. **VOTER DECLARATION Read and Sign**

I swear / affirm that: I am a U.S. citizen. I will have lived in this state and county for at least 30 days before voting, and if a resident of a municipality, I will have lived in the municipality for at least 30 days before voting. I have never been convicted of murder, rape, bribery, theft, arson, obtaining money or goods under false pretense, perjury, forgery, embezzlement, or bigamy, or I have had my rights restored as required by law. I have not been declared mentally incompetent by a court. Furthermore, I certify that I am at least eighteen (18) years old (or I will be before the next general election), the information given by me is true and correct and that I have truly answered all questions on this application for registration, and that I will faithfully support the Constitution of the United States and of the State of Mississippi, and will bear true faith and allegiance to the same.

X_____ _____

Signature (or mark) of applicant Date

X_____

If applicant is unable to sign, the signature of the person who helped fill out this application is required.

_____

Daytime Phone number (s) where applicant can be reached

For Office use Only

WARNING: False registration is a felony. The penalty for conviction of false registration is imprisonment for not more than five (5) years or a fine of not more than five thousand dollars ($5,000), or both.

MV 11-94

Voter Registration Worksheet

Use the Mississippi Voter Registration Application to answer the following:

1) True or False: The completed application can only be mailed to the Circuit Clerk.

2) True or False: In order to register to vote you must be 20 years old.

3) True or False: You must live in the state and county 6 months before voting.

4) The penalty for false registration is _____ or _____ or _____.

5) What is the purpose of Section 3 of the form?

6) Whom should you contact if you have questions concerning voter registration?

7) What are 4 qualifications necessary to register to vote in Mississippi?

8) What type of address must be used on the voter registration form?

9) In Section 2 what information is optional?

10) What does the paragraph in Section 4 refer to?

Use the Mississippi Voter Information Sheet or other resource to answer the following:

1) How do you register to vote?

2) Where do you register to vote?

3) What is the name and address of your county registrar of voters?

4) Can anyone vote?

5) After registering to vote, when must you re-register?

6) How much does it cost to register and/or to vote?

7) What is absentee voting and how does it work?

8) How long before an election should you register?

9) After registering, how will you know where to go to vote?

10) Name 3 ways you can register to vote.

Right to Vote Word Bank

absentee ballot
absentee voting
amendment
ballot
campaign
Circuit Clerk
Constitution
county registrar
democracy
election
election returns
electoral college
literacy test
political parties
poll
poll taxes
polling place
primaries
ratified
register
registered voter
run-off
Secretary of State
suffrage
vote
voter registration
voting booth
voting machines
voting precinct

Related Web Sites

www.sos.state.ms.us/ Click on “Register”, then click on “To Vote”

www.pbs.org/democracy/votinginamerica/ Information about the history of voting

www.fec.gov/pages/faqs.htm Questions about voting

www.fec.gov/pages/elecpg.htm Federal Election Commission

www.usatoday.com/politics/voting/frame.htm Information about voting machines

www.howstuffworks.com/e-voting.htm Information about e-voting

www.easyvoter.org/

www.pbs.org/democracy/buildyourowncampaing/teacher.html

www.fvap.gov/publications/vaginfo.html Voting assistance guide

www.hom.net/~jmurtagh/voting.html Voting and Civil Rights

www.vote-smart.org/vote-smart/states.phtml Voter info

www.myabsenteeballot.com/ Absentee ballot info

www.encarta.msn.com Keyword “election” (History of voting, voter information)
Keyword “suffrage”
Keyword “Constitution of the United States”

Interdisciplinary Lesson Plans

Area/Skill	**Cognitive Skill Level**	**Submitted by**	**Location**
Science, Math Language Arts Writing	Knowledge, Comprehension, Application, Synthesis, Evaluation	Julia Floyd	Itawamba Community College

Activity Title: Cloning

Goal/Objective: 1. Gather pertinent/factual information. 2. Research success/failure rates for cloning. 3. Evaluate a timeframe. 4. Form opinions and be able to explain them.

Lesson Outline:
Introduction:
Talk with the students to determine the extent of their knowledge of cloning. Discuss with them some brief information about Dolly, the cloned sheep. Tell the students this is a controversial issue today, so we want to begin with actual facts then form opinions.

Activity:
Activity 1: Read the article "Animal Cloning: Facts and Fallacies" found at www.teachervision.com/lesson-plans/lesson-124.html Have Students highlight information they find interesting and want to research further after this lesson.

Activity 2: Using paragraph 6 from the above article, have students calculate the success/failure percentages encountered when researchers cloned Dolly.

Activity 3: Have students read the article "Cloning Milestones Timeline" found at www.teachervision.com/lesson-plans/lesson-140.html Ask students to create a line graph depicting the number of years between each milestone. Add to this graph Dolly's death in 2003.

Activity 4: Have students read article "Team to Attempt Human Cloning" found ad www.cnn.com/2001/fyi/news/03/09/human.cloning Use Double Bubble Map to compare and contrast human and animal cloning.

Debriefing/Evaluation Activity
Discuss as a group the highlighted information from activity #1. Encourage students to use the internet to find more information to stretch their knowledge of cloning. Discuss the success/failure percentages calculated in activity #2. How do the students feel about these numbers? Share and discuss Double Bubble differences and similarities. Ask student how they feel about cloning now that they have more information.

Real-Life Connection
A member of your family is very sick. A cloned organ transplant has been suggested as a possible cure. What would you do? Search the internet for articles on the various types and benefits of cloning before you make a decision.

Materials/Texts/Realia/Handouts

"Animal Cloning: Facts and Fallacies" (www,teachervision.com/lesson-plans/lesson-124.html)

"Cloning Milestones Timeline" (www.teachervision.com/lesson-plans/lesson-140.html)

"Team to Attempt Human Cloning" (www.cnn.com/2001/fyi/news/03/09/human.cloning)

Double Bubble Map

Extension Activity
Have students write an essay describing how our world might change if cloning humans and animals becomes an accepted practice.

ESE Accommodations
Cooperative learning

Peer tutoring

Calculator

Interdisciplinary Lesson Plans - Script

Area/Skill Science, Math Language Arts Writing	**Cognitive Skill Level** Knowledge, Comprehension, Application, Synthesis, Evaluation	**Submitted by:** Julia Floyd	**Location** Itawamba Community College

Activity Title: Cloning

Introduction
Say: What do you know about cloning? How do you feel about cloning? Are cloning attempts usually successful? What do you know about Dolly, the cloned sheep? We seem to have lots of ideas and opinions about this. Let's look at some facts and figures.

Main Activity
Say: Let's read the article about some facts and fallacies of cloning. Use a highlighter to mark any new or interesting information to you. We can use these later to research more information. Also, pay close attention to paragraph # 6 because it contains some statistics you will need later. (Discuss the highlighted information but save it for follow-up activities.)

Now let's look at the number of sheep cells used. Compare this to the number of embryos produced. Compare this to the number of pregnant sheep. Compare all this to the **one successful** birth of Dolly. Do you think these are great odds?

Let's look at the cloning timeline. Take this information and create a line graph. We want to look at the number of years spanned since cloning was first envisioned, and look at the number of years between each milestone. Be sure to include Dolly's death in 2003.

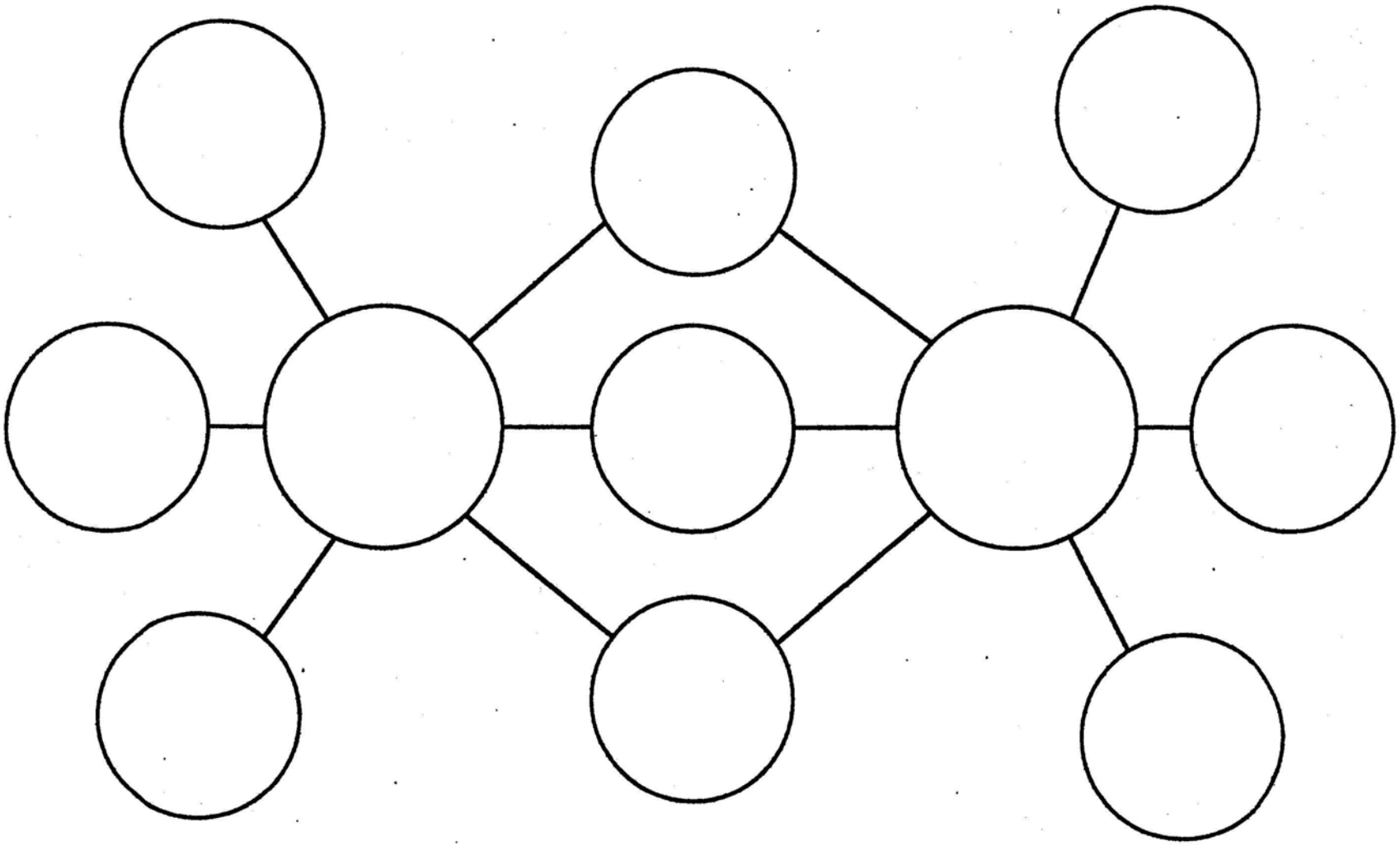
Let's look at one more article about a team attempting to clone humans. We're going to use the Double Bubble Map to compare and contrast the similarities and differences between human and animal cloning.

Closure/Conclusion
We've studied a lot of information about cloning. How do you think this technology/research will change in future years? Cloning has great potential, but so much controversy surrounds it. Let's follow cloning through the news in the future to keep our knowledge and ideas current. Let's see how cloning fits into our lives in the future.

Follow-up Lessons/Activities
Use highlighted information from "Animal Cloning: Facts and Fallacies" to research further into cloning. Have students combine/compare/contrast their findings and newly formed opinions. Ask them how their ideas/opinions about cloning have changed because of this lesson.

Double Bubble Map

Name _____



Double Bubble Map for Comparing (similarities) and Contrasting (differences)

Interdisciplinary Lesson Plans

Area/Skill	**Cognitive Skill Level**	**Submitted by**	**Location**
History, Science, Writing	Application	Victor Richardson	Northwest MS Community College

Activity Title: Coming to America by Way of the North Pole

Goal/Objective: Students will learn how magnetism makes compasses work and the importance of compasses during the Age of Discovery.

Lesson Outline:

Introduction

This activity will show how the science concept of magnetism was used by Discovery Age explorers to help them cross the Atlantic to the New World.

Activity

An introductory discussion will serve to define the need for a compass on thee high seas during the 15th and 16th centuries. Then students will actually make a compass from the materials listed. Final discussion will focus on what makes the compass work.

Debriefing/Evaluation Activity

Write an essay on the topic "What was the importance of the compass to the Age of Discovery?"

Real-Life Connection

Have students use the Internet as a resource to make a list of how the compass is still used.

Materials/Texts/Realia/Handouts

Styrofoam cup and plate
Small paper clip
Coin-sized circular disc (4-6 cm diameter)
magnet
scissors
pencil
tape
water

Extension Activity

Have students enhance their compasses by
1. including the intermediate directions
2. using a protractor to mark off the multiples of 10º around the outside of the cup.

ESE Accommodations

Cooperative groups
Hands-on activity

Interdisciplinary Lesson Plans - Script

Area/Skill History, Science, Language Arts, Writing	**Cognitive Skill Level** Application	**Submitted by** Victor Richardson	**Location** Northwest MS Community College

Activity Title Coming to America by way of the North Pole

Introduction

Say: During the Age of Discovery, European explorers had to cross the Atlantic to get to the New World. In those days, there was no GPS. On the wide open sea, there are no landmarks or moss growing on trees. The sun, moon, and stars are helpful for determining directions, but cloudy skies limited their help. What could sailors rely on to keep them on course? They used a compass. You will make a compass and discuss how it works.

Main Activity

Arrange students in small groups and distribute materials. Have students trace a circle on the Styrofoam plate using the circular disc. Cut the circle out. Straighten out the paper clip and magnetize it by stroking its length with the magnet about 10 times. Tape the paper clip to the Styrofoam circle so that the circle is centered along the length of the paper clip and the paper clip passes through the center of the circle. Cut the top of the cup off so that the cup stands about 3 cm high and put enough water in the cup to cover the bottom.

Say: Put the Styrofoam circle in the water with the paper clip turned up and watch which way the paper clip points. Pause. Look at others' paper clips and see if they are pointing in the same direction. What direction are they all pointing?

The response should be that all paper clips are pointing north.

Say: Let's see if we can understand why your compass always points north. Every magnet has 2 poles, or ends, north and south. The north end has an attracting force towards the south end, and vice versa. Anything that is attracted to the north end of a magnet must be like the south end of the magnet since they both are attracted to the north end. Since they are alike, anything attracted to the north end will be repelled by the south end. Opposites attract, but likes repel in the world of magnets. Just try to put the south poles of 2 magnets together and you'll see what I mean. Well, the earth is a big magnet with a north and south pole, and when you magnetized the paper clip, it became a magnet with a north and south pole. The north pole of the earth is attracted to the south pole of the paper clip and repels the paper clip's north pole. The result is that the paper clip's north pole points north and its south pole points south.

Closure/Conclusion

Say: We only have identified north and south on our compasses. How can we determine east and west? Pause. East is right of north and west is left of north.

Follow-up Lessons/Activities

Students could use their compasses in a treasure hunt for school supplies. All students would be provided a list of directions to follow to find the treasure. The directions would include the starting point and the different distances and directions to pace off to arrive at the treasure.

Interdisciplinary Lesson Plans

Area/Skill	**Cognitive Skill Level**	**Submitted by**	**Location**
L.A. reading/ L.A. writing Math/ Social Studies/Science/ Critical Thinking	Comprehension/Application/Analysis Synthesis and Evaluation	Jonathan Moore	Grenada ABE

Activity Title "The Flask" - Multi-disciplinary Problem Solving.

Goal/Objective Students will use many disciplines to creatively solve problems.

Lesson Outline

Introduction Read aloud "The Flask" a riddle story that introduces the notion of impossible choices.

Activity 1 Who Should Drink the Water?
Divide class into small groups to discuss the dilemma presented. Have each Group presents some possible solutions.

Activity 2 Examining criteria
Give each small group different descriptions of their characters on cards: two brothers, a father and son, mother and child, one rich-one poor, etc., and see if their solution would change based on additional criteria.

Activity 3 One sip at a time – Time, fractions and diminishing volume.
Introduce word problems based on the dilemma. e.g. If one person takes a sip of water (1 fluid ounce) every mile, how many miles will they have walked before they run out of water if they begin with a full 3 quart jug? Also if they walk a mile every fifteen minutes, how long will it be before They run out of water? If both people shared……?

Debriefing/Evaluation Activity Ask students to write a story describing their escape out of the desert.

Real-Life Connection
Do the Math word problems with the aid of quart bottles, bowl, Water and measuring spoons. (messy but fun!)

Materials/Texts/Realia/Handouts

"The Flask" taken from "The Cow Of No Color" by Jaffe & Zeitlin - Henry Holt 1998
3 by 5 cards
Quart Bottles
Bowl
Measuring spoons
Water
Calculators

Extension Activity

Do an internet search on deserts, their climate and the culture of desert regions.
http://members.aol.com/QuestSite/1/2.html
http://www.desertusa.com/
http://www.infoplease.com/ipa/A0778851.html

ESE Accommodations

Calculators,
Large-print materials

Interdisciplinary Lesson Plans - Script

Area/Skill	**Cognitive Skill Level**	**Submitted by**	**Location**
Mathematics, Social Studies, Science, Language Arts, Reading	Comprehension/Application/Analysis Synthesis and Evaluation	Jonathan Moore	Grenada ABE/GED

Activity Title: "The Flask" - Multi-disciplinary Problem Solving

Introduction Say: "Two men are traveling through the desert. One of them carries a flask filled with water. The desert stretches out before them. Both men know that the closest oasis is a hundred miles away. They also know that there is only enough water to keep one man alive until he can reach the watering hole. If the owner of the flask keeps the water for himself, he will reach the oasis with the spring water. If he gives the flask to his companion, his friend will live and he will die. If they share the water, both will die.
Who should drink the water?" *taken from "The Cow Of No Color" by Jaffe & Zeitlin – Henry Holt 1998*
This story poses the question of how to make impossible choices. We are going to learn how to think creatively and help solve problems.

Main Activities Say: We are going to divide into small groups now, and I want you in your group to discuss some possible solutions to the dilemma. When you have spent some time discussing it we would like to hear the consensus viewpoint from your group. *(Allow the students plenty of time to voice opinions within their group.)*

I am now giving each group a 3 x 5 card. On it you will find some additional criteria (relevant information) about this situation. Apply this new information to the problem and ask yourselves whether this new information changes your solution in any way.

Now we can construct some interesting Math word problems using this story as inspiration. For example: Supposing a person was to take a sip of water (about 1 fluid ounce) every mile, how far will they get before they run out of water if they begin with a full 3 quart jug?

What about this problem?.... If a person walks a mile every fifteen minutes, how long will it be before they run out of water? *(Maybe give students a work sheet containing more similar problems.)*

Closure/Conclusion: Write a short story describing your escape out of the desert.

Follow-up Lessons/Activities
Give students some more combination word problems in math. Create a display on deserts of the world using multiple sources such as magazine Internet articles and objects.

Interdisciplinary Lesson Plans

Area/Skill Science, Social Studies, Math, and Language Arts Reading	**Cognitive Skill Level** Knowledge, Comprehension Application, Evaluation	**Submitted by** Edna Lawrence, Lucille Jordan, JPS; Stephanie Smith, Pat Mauldin, H.F.E.C; Paula Miller, Jane Jones, JCJC

Activity Title: Spring Has Sprung

Goal/Objective: To read and understand directions for planting seeds and bulbs.

Lesson Outline

Introduction:

This lesson will introduce the students to math, language arts reading, science and social studies activities which can be incorporated into spring planting.

Activity:

Language Arts Reading: Oral reading and discussion of the poem "Daffodils" by William Wordsworth; reading and understanding directions from seed packets.
Social Studies: Discussion of plants which can be grown in different regions of the state.
Science: Discussion of soil preparation and fertilizers used based on plants selected.
Math: Measuring the distance that specific flowers are set apart when planting; laying out of flower bed.

Debriefing/Evaluation Activity:

Have someone from a local nursery/greenhouse evaluate the class's location of beds, whether or not the students chose wisely about the seeds/bulbs they planted, and if beds were properly prepared.

Real-Life Connection

Students will be able to transfer skills learned in this lesson to help beautify their respective communities and neighborhoods.

Materials/Texts/Realia/Handouts

Wordsworth's poem: "Daffodils"
Trowel/spade
Bulbs/seeds
Rake/Hoe
Measuring tape/yard stick
Fertilizer
Potting soil
Gloves

Extension Activity

Students will plant flowers at their respective homes and furnish fresh-cut flowers for the ABE/GED center; students will share their gardening experiences with others in the class

ESE Accommodations

Invite a landscape architect to demonstrate how to select seeds, prepare soil, and give step-by-step demonstration on how to plan bulbs/seeds properly before hands-on exercise.

Interdisciplinary Lesson Plans - Script

Area/Skill Science, Social Studies, Math, and Language Arts Reading	**Cognitive Skill Level** Knowledge, Comprehension Application, Evaluation	**Submitted by:** Edna Lawrence, Lucille Jordan, JPS; Stephanie Smith, Pat Mauldin, H.F.E.C; Paula Miller, Jane Jones, JCJC

Activity Title : Spring Has Sprung

Introduction
Say: It is now the season for planting bulbs and seeds and for new growth to begin. We will be discussing the planting of seeds and bulbs around to building. We will also discuss the utensils necessary for planting, and the plants suited to the climate and soil of our area.

Main Activity
Say: Let's begin by reading "Daffodils" by William Worthsworth. (Read poem.)
Say: Describe what you visualized as I read the poem. (Allow time for students' answers and a discussion of the terms *figurative language, imagery, simile, and metaphor*.)

Divide the class into six groups. Have two groups research various plants which easily grow in the area via Internet, printed materials, or through visiting nurseries and report to class. Have two groups research the soil type and fertilizer needed for the area and report to class. Have two groups select the areas to be planted and research lay out of beds and report bed plans to group. The group as a whole will work up beds and plant bulbs and seeds.

Closure/Conclusion
Say: We have planted seeds and bulbs that with proper care will beautify our building. It will be the class's responsibility to maintain the beds by keeping the beds weeded and the plants watered.

Follow-up Lessons/Activities

Students will be instructed to use this experience to plant seeds/flowers at home to furnish fresh flowers periodically for the class site. Students will also be encouraged to use their knowledge to beautify their communities.

Interdisciplinary Lesson Plans

Area/Skill Science, Language Arts Writing, Social Studies	**Cognitive Skill Level** Application	**Submitted by** Victor Richardson, Mary Murphy, Laura Williams, Sharlet Huff, Cindy Pierce, Deborah Vega, Geneva Atkins

Activity Title: Only the Strong Survive

Goal/Objective:
Students will be able to use the terms **adaptation**, **endangered species**, and **extinction** to describe the process of **natural selection**.

Lesson Outline
Introduction:
Natural selection is a natural phenomenon in which species of living organisms either adapt to their environment and survive or fail to adapt and eventually become extinct. This activity explores why some species survive and some don't.

Activity
Assign reading of the section on natural selection in Steck-Vaughn Science Exercises. Photos of animals and fossils will be used as fodder for discussion about animal adaptations for survival and the lack of adaptations in endangered and extinct species.

Debriefing/Evaluation Activity
Write a paragraph about how nature "selects" living organisms which have adapted to their environment, thus surviving.

Real-Life Connection
Describe a scenario of an urban group of people who have to live in the wild with no modern conveniences, and then discuss what characteristics would improve a person's chances to survive and how these characteristics would lead to dominance in the survivors and their offspring.

Materials/Texts/Realia/Handouts

Steck-Vaughn Science Exercise book
Photos of animals and fossils

Extension Activity

Invite a Forestry Service or wildlife refuge person to speak concerning the preservation of endangered species.

ESE Accommodations

Invite a Forestry Service or wildlife refuge person to speak concerning the preservation of endangered species.

Interdisciplinary Lesson Plans - Script

Area/Skill Science, Language Arts Writing, Social Studies	**Cognitive Skill Level** Application	**Submitted by:** V. Richardson, M. Murphy, L Williams, S. Huff, C. Pierce, D. Vega, G. Atkins

Activity Title: Only the Strong Survive

Introduction
Say: You've all read the section on natural selection that you were assigned. Now, let's talk about how natural selection actually works

Main Activity
Say:
Present to the class a picture of a koala bear. Say: Koalas are interesting animals in the way they look and what they eat. Virtually all of their diet is the leaves of eucalyptus trees, which primarily grow in Australia. Where do you think most koalas in the wild live? *Pause for an answer of Australia.* Because of this restriction, koalas only number about 100,000 in the wild, and their very existence in the wild is threatened partially because the availability of eucalyptus is somewhat restricted.

Say: What would happen if a few koalas in some way developed the ability to eat another type of food that is available in areas in and outside Australia? *Students should be encouraged and prompted to arrive at these answers: 1) the adapted koala population would likely increase, and 2) the unadapted koala's existence would remain threatened because of its dependence on eucalyptus.* This development in the koalas is an example of an adaptation. You can see how such adaptations can mean survival of a species.

Present a picture of a common cockroach and mosquito. Say: You're probably all familiar with the cockroach and mosquito. Man has been pestered by these creatures for centuries. In the last century, pesticides were developed that were significantly effective in killing these pests. Do you think that roaches and mosquitoes were in danger of extinction? Discussion. It appears that some mosquitoes and roaches have acquired an immunity to some pesticides and, so, are not as threatened by these chemicals. This immunity qualifies as an adaptation, and again you can see how an adaptation helps to make species fit to survive. That's where we get the expression "survival of the fittest" to describe what natural selection really is.

Present pictures of a saber-toothed tiger, wooly mammoth, dinosaur, dodo bird, albatross, and a California sword-fern. Say: These species of animals and plant don't exist anymore, that is, they are extinct. Can you imagine what led to their extinction? Discussion. Perhaps the tiger's elongated teeth, the mammoth's tusk and size, and the albatross's inability to avoid the human threat were factors in their extinction. We are not sure, but related species developed adaptations for survival and now we have elephants, tigers, and a variety of large-sized reptiles to prove it.

Closure/Conclusion
Say: It is a figure of speech to say "nature selects" which species survive. In reality, those species which do not acquire adaptations for survival will likely become extinct.

Follow-up Lessons/Activities
There is an "unnatural" selection phenomenon that occurs when man does gene engineering, cloning, and cross breeding to design new species of agricultural crops and livestock breeds which are customized for desirable qualities, including fitness for survival. Have students report on one or more of these "unnatural" selection methods.

Interdisciplinary Lesson Plans

Area/Skill	**Cognitive Skill Level**	**Submitted by**
Math, Science, Writing, Reading	Comprehension, Application, Analysis, Evaluation	Rankin County Schools P. Bridges, C. King, G. Ozier, C. Smith

Activity Title: The Tree

Goal/Objective
1. Gather information needed for ratio & proportion.
2. Perform the ratio and proportion concept.
3. Gather information about trees.
4. Write a paragraph using bubble chart words.

Lesson Outline

Introduction: Show film on trees from the Forestry Commission.

Activity
1. Do a bubble chart to discover their comprehension level.
2. Write a paragraph or poem using bubble chart information.
3. Count the rings to determine the age of the tree and the note difference in the rings
4. Go outside and take measurements of shadows of a tree and another object. Also measure the height of the object. This information is used to set up the proportion.

Debriefing/Evaluation Activity
1. Compare and discuss the results of the measurements and proportion.
2. Use Worksheet #1 to evaluate the study of proportion
3. Read paragraphs and /or poems in class and discuss similarities and differences.

Real-Life Connection

The importance of the environment in these disciplines.

Materials/Texts/Realia/Handouts

Film from the Forestry Commission
Worksheet #1
Bubble Sheet
Measuring Tape
Section of a tree

Extension Activity

Leaf Collection
How weather affects tree growth
Measure other objects
Trip to Petrified Forest
Concentric circles
Radius
Diameter
Area of a circle
Circumference
Volume

ESL Accommodation

Cooperative learning
Peer tutoring

Interdisciplinary Lesson Plans - Script

Area/Skill	**Cognitive Skill Level**	**Submitted by:**
Math, Science, Writing, Reading	Comprehension, Application, Analysis, Evaluation	Rankin County Schools P. Bridges, C. King, G. Ozier, C. Smith

Activity Title: The Tree

Introduction

Say: After viewing the film, today we are going to talk about the importance of the tree in our environment. We will be using the tree in our use of ratio and proportion. We will discuss the biological aspects of trees.

Main Activity

Say: Discuss the film. Then show the section of the tree and discuss growth/age rings.

Each student has been given a bubble chart. In the center bubble put the word “tree”. Fill in the other bubbles with words related to trees. After students have completed the chart, say: Now use all of the words to create a paragraph or poem.

Go outside. Say: We will measure the height of the mailbox and the length of its shadow. Now measure the length of the shadow of the tall pine tree. Using these measurements, let’s set up a proportion problem to determine the height of the tree.

Discuss their results and how they can use proportions in other situations.

Give worksheet #1.

Closure/Conclusion

We have discussed how trees are important to our environment. Their biological makeup has also been discussed. We have used math procedures needed for the GED and discussed how they can be used in everyday life.

Follow-up Lessons/Activities

Have students research weather patterns for the last ten years. Compare these findings to the growth ring on the section of the tree.

Worksheet #1

APPLICATION OF PROPORTION

1. A car travels 96 miles on 8 gallons of gas. How far can he car travel on a full tank of gas that holds 20 gallons?

2. The picture below is to be enlarged. If the width of the enlargement will be 8 inches, how high will it be? If the width of the picture is 8", how high will it be?

7" high

5 " wide

3. At Foster's Department Store, the ration of managers to sales people is 2:9. If Foster's currently has 180 salespeople, how many managers are there?

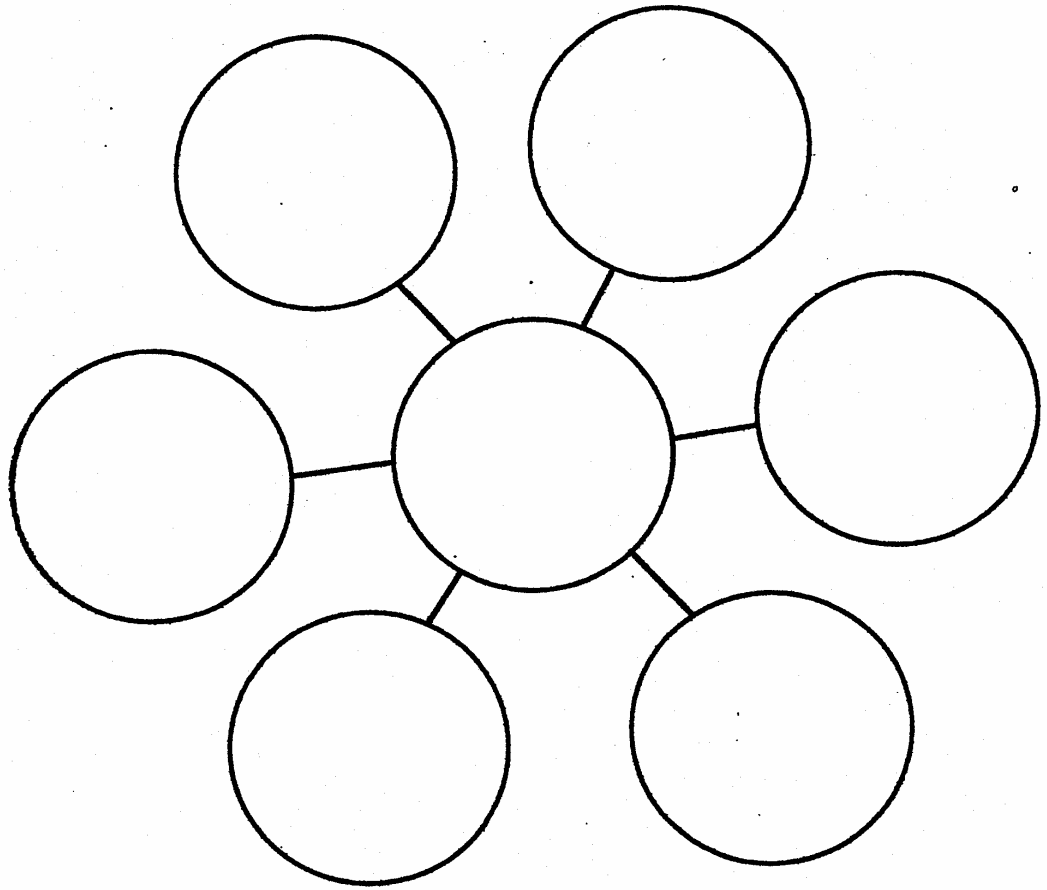
4. On the scale drawing below, 1/8 inch = 1 foot. If the length of a room on the scale drawing is 2 ¼ inches, how long is the actual room?

2 ¼

Key: 1/8 inch = 1 foot

5. Two pancakes contain 120 calories. Ellen had a stack of 7 pancakes. How many calories did she have?

Bubble Map **Name** _____



Bubble Map for Describing Using Adjectives and Adjective Phrases

Interdisciplinary Lesson Plans

Area/Skill	**Cognitive Skill Level**	**Submitted by**	**Location**
Math, Social Studies, Language Arts Writing	Analysis	GED 2002 National Training Institute Participant – Laura Kiser	West Virginia

Activity Title: Constructing A Simple Line Graph

Goal/Objective:
Math: Use map skills to calculate distances from a given location. Analyze and draw conclusions from graphs.
Social Studies: Use map skills to determine students' residences from a given point.
Language Arts Writing: Demonstrate proficiency in paragraph development that includes a topic sentence, three supporting sentences, and a closing sentence.

Lesson Outline
Students will use research and organization skills to construct and interpret a simple line graph. Students will collect data to determine the distance each student must travel to attend class. Students will organize the collected data and graph to present findings. Students will analyze their graph to draw conclusions.

Introduction
Students participating in local ABE programs often travel great distances to attend class. They may live in different communities and counties. Students will collect information relative to their classmates to create a simple line graph.

Activity
A packet of information will be provided to each student that will include the following: instructions, a state map, and worksheet. Students will discuss various methods for collecting and organizing information to construct a simple line graph. Small groups of students will: use data collection strategies and skills to locate communities on the map, compute the mileage from a given location, construct a simple line graph to represent findings, and write a paragraph interpreting their line graphs. The small groups will display and analyze the constructed graphs for the whole group. Whole group discussions will address any variations in graphing representation and/or analyzed results.

Debriefing/Evaluation Activity
Students will briefly discuss and evaluate methods of data collection and the construction and interpretation of simple line graphs. Conclusions will be evaluated for validity. Math computations will be evaluated for accuracy. Checklists will be used to evaluate paragraph development and line graph items (Ex: appropriate graph title, labeled horizontal and vertical axis, appropriate interval/scales of measure, correctly plotted information, and connected plots with a solid line.

Real-Life Connection
Real life relevance can be easily demonstrated with regard to health issues that need daily monitoring. This might include blood pressure, diabetes, and body temperature. Students should be able to interpret line graphs used by some utility companies to report customer usage on the monthly statement. Students might choose to use a graph to monitor monthly expenses for budgeting purposes.

Materials/Texts/Realia/Handouts

Map
Worksheet
Paper/Pencil
Calculators
Checklist (rubric) to evaluate Paragraph Development
Checklist (rubric) to evaluate line graph construction

Extension Activity
Interpret simple line and bar graph used in local, regional or national newspapers to report current/future job opportunities, higher-level education opportunities, stock market status, census data or other pertinent information to the life, work, and/or educational goals of an individual student or whole class.

ESE Accommodations
Team students in a manner to accommodate various functioning levels.

Allow use of calculator for computations.

Interdisciplinary Lesson Plans – Script

Area/Skill	Cognitive Skill Level	Submitted by:	Location
Math, Social Studies, Language Arts Writing	Analysis	GED 2002 National Training Institute Participant-Laura Kiser	West Virginia

Activity Title: Constructing A Simple Line Graph

Introduction

Say: Business, industry, education, government, newspapers, and television communicate a wide range of information using simple and complex graphs and charts. Today we will explore some ways to collect, organize, and report/present information using a simple line graph. The teacher will show how various publications and resources use line graphs to present information. (Ex: local, regional, state or national newspapers, magazines, promotional materials and other life relevant materials).

Main Activity

Say: Today we will discuss and practice options for collecting information from each student and methods for organizing that information. We will determine the distance each student must travel to attend class, organize our collected data, graph the data, and analyze the graphed information.

Closure/Conclusion

Discuss responses to the activity worksheet. Discuss how interpreting and analyzing graphs is relevant to real life and work environments.

Follow-up Lessons/Activities

Provide students with newspapers, flyers, brochures, documents and other real life/work materials that use graphs to communicate facts. Students select a graph presenting information of personal interest to interpret and analyze

Creating a Simple Line Graph

Name: _____
Date: _____

Directions

Working individually or in groups:

- Conduct a survey to see where ABE classmates live.
- Use a road map to calculate the distances of those communities from your ABE/GED class site. A calculator may be used to calculate distances.
- Record and organize the collected data
- Construct a simple line graph.
- Write a paragraph analyzing your data.
- Present your constructed graph and its interpretation to the whole group.

Worksheet

Answer the following questions from the information presented in your line graph.

What is the shortest distance traveled by a student in order to attend class? _____

How many students travel the shortest distance? _____

What is the longest distance traveled by a student in order to attend class? _____

How many students travel the longest distance? _____

What is the average distance traveled by the class in order to attend class? _____

How far do the most number students in your class travel? _____

Do most students attending class live within a 5-mile radius? _____

Do most students attending class live within a 10-mile radius? _____

Are students from one part of the county traveling too far to attend class? _____

Is the class site centrally located for students? _____

Why do you believe it is or is not centrally located for students? _____

Based on your information, should an ABE/GED class be established in another part of the county?

Interdisciplinary Lesson Plans

Area/Skill Math, Social Studies, Language Arts Reading	**Cognitive Skill Level** Knowledge, Comprehension Application	**Submitted by** Jennifer Whitlock	**Location** Meridian Community College

Activity Title: Area Code Math

Goal/Objective:
1) Students will practice reading maps.
2) Students will learn how to use area codes and a telephone book.
3) Students will learn how to add, subtract, and multiply three digit numbers.
4) Students will become familiar with the locations of different states on a map/

Lesson Outline
Introduction:
The phone book's listing of area codes provides a novel source of three digit subtraction, addition, and multiplication practice as well as promotes map reading skills and knowledge of U. S. geography.

Activity:
Prepare a map of the United States with area codes on it. Use the telephone book's area code map as a model. Also prepare a set of math problems based on the area codes such as:
Northern Mississippi minus Western Alabama equals?
Central Mississippi plus Missouri equals?
Southeastern Mississippi times Alaska equals?

Students will use their maps to find numbers indicated by state and area names and will perform the operations specified. More sophisticated word problems can also be based on area code information.

Debriefing/Evaluation Activity:
Discuss reasons for using area codes and how they help our phone system. Discuss the uses of the telephone book (ex. white, yellow, and blue pages).

Real-Life Connection:
Many students do not know why some phone numbers have more digits than others. With this lesson they will learn the reasons for area codes and how to use them They will also learn how to use a map to locate their family and friends in other states.

Materials/Texts/Realia/Handouts

Telephone book with area codes
Worksheet 1:
U. S. map or U. S. map with area codes

Extension Activity

Research the history of the telephone book.

Research the history of area codes.

ESE Accommodations

Group mentoring

Interdisciplinary Lesson Plans - Script

Area/Skill Math, Social Studies, Language Arts Reading	**Cognitive Skill Level** Knowledge, Comprehension Application	**Submitted by:** Jennifer Whitlock	**Location** Meridian Community College

Activity Title: Area Code Math

Introduction
Say: Today we will be engaged in a fun activity which will include math, social studies, and reading. To begin our lesson, you will need to write down the phone numbers of friends and family who live near and far away.

Main Activity
Provide students with a telephone book and a map of the United States.

Say: Use your telephone book to write the area codes of each state on the map. (Give time to complete activity.)

Say: Now find the state and the area code for your family and friends. (Give students time of complete activity.)

Say: Now add subtract, and multiply various combinations of your area codes. (Give students time to complete activity.)

Say: Create a list of math problems to share with the class in which you add, subtract and multiply the area codes.
For example, Northern Mississippi minus Western Alabama equals?

Closure/Conclusion:

Discuss with the class the importance of area codes and how they have changed over time.
Discuss with the class, why some states have several area codes.

Follow-up Lessons/Activities:

Students can research the history of area codes , why the numbers within a state vary, and the history of the telephone book.

Interdisciplinary Lesson Plans

Area/Skill	**Cognitive Skill Level**	**Submitted by**	**Location**
Mathematics, Language Arts Reading, Language Arts Writing	Comprehension, Analysis, Synthesis	Deborah Ferguson	Picayune Career & Technical Center

Activity Title: Wheel of Fortune

Goal/Objective

1. Gather appropriate information for simple statistical analysis.
2. Calculate the probability of picking any letter at random from a piece of English Literature.
3. Develop skills in calculating percentage probabilities in addition and rounding of numbers, and using a calculator.
4. Evaluate research by comparing results with those of other students and answering related questions.

Lesson Outline:

Introduction: Begin with a 5-10 minute clip for **Wheel of Fortune**, including the "Bonus Round." Ask students to think about why the letters "r, s, t, l, n and e" are given in the "Bonus Round."

Activity:

1. Have students choose a book, magazine, or newspaper to research the use of letters. Choose a page and place at random and begin to tally the letters, filling out the table provided on Worksheet 1. Ask students to count 300 letters.
2. Use a calculator to calculate the percentage probability of finding each letter. Check for accuracy by adding up percents, which should total between 99% and 101% (allowing for rounding).
3. Answer and discuss questions on Worksheets 1 and 2.

Debriefing/Evaluation Activity: Compare and discuss the students' results. Note the similarities and try to account for the differences. Use Worksheet 2 to review some of the statistical consequences of the study done by the students. Note: Questions such s 1, 3, 6, and 8 have no right answers.

Real-Life Connection: Curtis and Frank are healthcare aides at a hospital. Both have applied for a training program to improve their skills. Of the five employees who applied for the program, two will be chosen at random. What is the percentage probability that both will be chosen.

Materials/Texts/Realia/Handouts

Video clip of **Wheel of Fortune**
books, newspapers or magazines
Worksheets 1 & 2

Extension Activity

Science: In the field of genetics, scientists study how certain traits are passed from one generation to another. Generally, genes that determine physical traits are found in pairs. During reproduction, each parent provides one gene to create a new pair. In certain flowers, that which produces the red color is represented by *R*. The gene of the white flower is represented by *r*. The capital letter represents the dominant gene, meaning that if a flower has the pairing *Rr*, its color will be red. Only a flower with the pairing *rr* can be white. Suppose the parent genes are *Rr* and *RR*. What are the possible pairings for the offspring? Off-spring possibilities: *RR, RR, Rr, Rr*.

ESE Accommodations

Cooperative learning
Peer tutoring

Interdisciplinary Lesson Plans - Script

Area/Skill Mathematics, Language Arts Reading, Language Arts Writing	**Cognitive Skill Level** Comprehension, Analysis, Synthesis	**Submitted by:** Deborah Ferguson	**Location** Picayune Career & Technology Center

Activity Title: Wheel of Fortune

Introduction
Say: (After viewing video clip of **Wheel of Fortune)** Are there some letters that are used more than other in common words used in the English language? If you knew the statistical probability of each letter used in various contexts, would you have any advantage in playing word games?

Main Activity
Say: Each student (or group) should select a book, magazine, or newspaper and complete the chart on Worksheet 1. After listing the total for each letter, use the given formula to list the percentage probability for each letter rounded to the nearest whole percent. When you have completed the chart, tot the percents to check for errors. You may use your calculator for this activity. (Use this opportunity to be sure all students know the procedure to find percents using the calculator.)

Say: Use the data you collected to answer the questions on Worksheet 1. Remember that data is the term for the information collected.

Call on about 1/3 of the class to give their answers to questions 1-3 and begin a discussion by asking if any patterns are discovered.

Say: Let's use what we have learned so far to come to some "statistical" conclusions. Please complete Worksheet 2. Some of the questions will ask for conclusions and will have no "right or wrong" answers. When you have completed the worksheet, gather to compare and discuss your conclusions.

Closure/Conclusion
Say: I hope it is clear that statistics and probability play an important part in our lives and are particularly useful in helping us make informed decisions. Can anyone think of a situation when applying this concept would be useful in your day-to-day life?

Follow-up Lessons/Activities
Have student to supply words and phrases and participate in their own game of **Wheel of Fortune**.

Worksheet 1

Name _____ Date _____

Name of the book or magazine being used for survey:

_____ page _____

Survey 300 letters

Letter	Tally	Total	%
A			
B			
C			
D			
E			
F			
G			
H			
I			
J			
K			
L			
M			
N			
O			
P			
Q			
R			
S			
T			
U			
V			
W			
X			
Y			
Z			
	Grand Total		100%

Help:
To find percents,
Use the calculator:
Total / Grand Total = %

Survey Questions

1. How many vowels are in the top ten? _____
2. Which consonants would be most useful in the “Wheel of Fortune”? ___, ___, ___, ___, ___, ___
3. Which vowel might be least useful? ____
4. What percentage of all letters surveyed were vowels? _____
5. See if you make ten different words using only the top five letters?

Worksheet 2
Letters of the Alphabet
(Statistical Conclusions)

TRUE or FALSE: Circle One

1. You should never expect to find the letter Q on the "Wheel of Fortune." True False

2. Almost every word requires a vowel. True False

3. The letter K is useful when playing "Wheel of Fortune" True False

4. I and O are the most useful vowels. True False

5. The "top ten" letters account for about 75% of the letters needed for writing. True False

6. The English language could get along fine without the letters J, Q, and X. True False

Explain any two of your answers to questions 1 – 6.

_____

_____

_____

_____

7. If you were producing stickers with letters of the alphabet with letters of the alphabet for use in labeling personal items, such as books, pens, bags, and bedroom doors, which of these letters would you need most? Circle 5 A B C D E F G H I J

8. To do a more accurate study for the above "alphabet stickers" you would need to make a survey of…
   (a) a popular magazine
   (b) a list of student's names
   (c) a dictionary
   (d) a novel

9. In the game "Scrabble", which of these letters would you expect to be worth more points? Why?

H V S

10. In "Scrabble", which of these letters would you expect to be worth 1 point? Why?

Q N K

Suggested Answers
(Answers may vary)

Worksheet 1

1. Four
2. R, S, T, N, L, plus one more
3. U
4. About 30% to 40%
5. Answers will vary

Worksheet 2

1. False
2. True
3. True or False
4. False
5. True
6. True or False
7. A, E, H, I, plus one other
8. Answers will vary
9. V
10. N

Interdisciplinary Lesson Plans

Area/Skill	**Cognitive Skill Level**	**Submitted by**	**Location**
Mathematics, Language Arts Writing, and Language Arts Reading	Comprehension, Application, Synthesis	Lisa Bogan	Greater Columbus Learning Center

Activity Title: Perimeter

Goal/Objective:
Math: Find perimeter of a figure.
Writing: Write essay on how you may use perimeter in life.
Reading: Pick out pertinent information from word problems in order to solve for perimeter.

Lesson Outline:
Introduction
Perimeter is widely used in everyday activities such as walking distance, picture framing fencing around a yard. This lesson will give students skills to select and use information in determining perimeter.

Activity:
Define perimeter; demonstrate how to solve.
Given a model, find perimeter.
Using self-assembled framing materials, and posters of different sizes, students will work together in small groups to determine the perimeter of the poster and then measure and cut the frame to fit.
Have students write paragraph on how knowing how to find perimeter is pertinent in our lives.

Debriefing/Evaluation Activity:
Develop formulas for special figures such as square, rectangle, and trapezoid.

Real-Life Connection:
Walk parking lot and determine perimeter and how many times around parking lot would make a mile.

Materials/Texts/Realia/Handouts
- Self-assembled framing materials
- Posters of different sized
- Yard stick
- 50' measuring tape
- Word problem handout

Extension Activity
Each student will find the perimeter of his/her vehicle and see if it will fit the parking space.
Discuss SUV sized and how they may be too big for some parking spaces.

ESE Accommodations
- Team students
- Vocabulary handout
- Calculator

Interdisciplinary Lesson Plans - Script

Area/Skill	Cognitive Skill Level	Submitted by	Location
Mathematics, Language Arts Writing, and Language Arts Reading	Comprehension, Application, Synthesis	Lisa Bogan	Greater Columbus Learning Center

Activity Title Perimeter

Introduction
Say: Today we are going to frame these posters.

Main Activity
Say: Who knows what distance around a figure is called?
(when we come up with perimeter) Ask: How can we find the distance around a figure?
(when we come up with add all sides hand out word problem sheet) Go over problems together, picking out what information is needed to find perimeter and determine if each problem has all the information necessary to solve for perimeter.

Divide class into small groups with each group having a poster, yard stick, and framing materials.
Say: Now we are going frame these posters. The frames have to be cut to fit the length of each side the poster.
What do you need to know before you can start cutting? (when we come up with "if you have enough framing material to fit around the poster")
Allow students time to complete activity.
Say: Write an essay on how you may use perimeter in your personal life.

Closure/Conclusion
Discuss how some figures have specific characteristics which could lend to a short cut in solving for perimeter. For example, a square has 4 equal sides. Could we just multiply a side times 4 instead of adding it for times? A rectangle has 2 equal widths and 2 equal lengths. Could we calculate 2 widths plus 2 lengths?

Follow-up Lessons/Activities
Say: Let's say I wanted to start an exercising more regularly but didn't have any other time than my lunch hour to take a mile walk. I could use the parking lot to walk around but I would know how many times to walk around it to walk a mile. I'm going to let you go outside and find out for me.
Provide students with 50' measuring tape and allow them to go to the parking lot to measure.

Interdisciplinary Lesson Plans

Area/Skill Mathematics Language Arts, Reading Language Arts, Writing	**Cognitive Skill Level** Comprehension, Application, Analysis, Synthesis	**Submitted by** Monica Watson	**Location** Southwest MS Community College

Activity Title: Solving Percent Problems

Goal/Objective: Students will comprehend and analyze what differentiates the part and the whole in percent problems

Lesson Outline:
Math: Determine the part and whole to set up a proportion to solve percent problems.
Language Arts, Reading: Use the Internet to find and read biographical essays or comments on mathematicians.
Language Arts, Writing: Demonstrate proficiency in holistic writing practices.

Introduction:
This lesson provides a step by step approach to solving problems with unknowns, thus an intro for solving linear equations with one variable. Students will use cognitive skill levels to classify, arrange, solve, research, decipher, and compare unknown quantities and actual savings versus proposed savings. Students will also utilize the logical/mathematical and linguistic learning styles.

Activity:
Refer to handout information sheet.

1) Discuss the three types of questions in percent problems. Explain to students how to differentiate between the part and whole of a percent problem and use a proportion to solve for the missing number.
2) Have students use the graphic organize to brainstorm what they think they know about percents and then write a journal writing describing the steps taken to solve for the missing number in one of the types of percent problems.
3) Have students utilize the Internet or periodicals to search for biographies on mathematicians. Also have students search for advertisements indicating percentage discounts on similar name brand products and survey any proposed savings.

Debriefing/Evaluation Activity: Ask students to discuss any difficulties in determining the part and the whole. Ask students to draw charts or explain the process of substituting the known values into the correct position when setting up a proportion.

Real-Life Connection:
Since adults are also consumers, the lesson's reference to real-life consumer practices will address how viable it will be to understand how percentages are derived and demonstrated comparison techniques regarding advertised discounted prices. Percents are commonly used in many of the adult learners' livelihood such as calculating percents for interest on various types of loans, discounts and taxes.

Materials/Texts/Realia/Handouts

Newspaper Sales
Advertisements
Graphic Organizer
Articles from the Internet

Extension Activity

Peruse a department store website….JC Penny (www.jcpenny.com), Dillards (www.dillards.com), etc. Search for percentage discounts and place the numbers into a proportion to solve for cost before and after discounts.

ESE Accommodations

Hand out indicating steps for solving a percent problem using a proportion.

Allow calculators for computations.

Graphic organizer for brainstorming ideas and comparing similar products vs. discounted prices.

Interdisciplinary Lesson Plans - Script

Area/Skill	Cognitive Skill Level	Submitted by:	Location
Mathematics, Language Arts, Reading Language Arts, Writing	Comprehension, Application, Analysis, Synthesis	Monica Watson	Southwest MS Community College

Activity Title: Solving Percent Problems

Introduction Say: We will introduce a step by step approach to solving percent problems when one of the numbers is missing. This lesson will Also be an introduction for solving linear equations with one variable.

Main Activity Say: 1) Refer to handout information sheet.

- There are types of questions in percent problems. Let's look at a statement involving percents to determine what kind of questions could be asked. Example: 15 is 25% of 60.
- In a percent problem you will either be looking for the part, (15 in this example), the whole (60 in this example) or the percent (25 in this example). 100 will always represent the whole percent.
- One way to differentiate between the part and whole of a percent problem is to note that the number referenced after the word *of* usually indicates the whole.
- The percent part always asks *"what percent".*
- Once you decide if you are looking for the part, the whole, or the percent part, label the missing value with **n,** and set up the proportion. Then solve for **n**.
- See handout information sheet for formula.

2) Use the graphic organizer to brainstorm what you think you know about percents and then write a journal writing describing the steps taken to solve for the missing number in one of the types of percent problems.

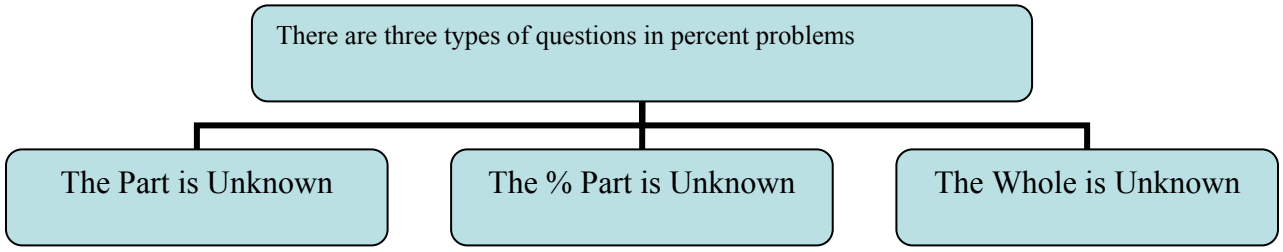
3) Surf the Internet or periodicals to search for biographies on mathematicians and math facts. Read the biography and write an essay about what you have learned. Demonstrate making a bridge to the reader; ensure that you include supporting details. See attached.

4) Search the Internet for department store websites such as JC Penny, Dillards, Sears, etc. Peruse the sites looking for percentage discounts. Set up the unknown values into a proportion and solve for the three types of percentage problems: the part, whole, or percentage.

5) Use the bubble graphic organizer to brainstorm what you know about percents. Write a paragraph comparing all that you know about percents and what you have learned.

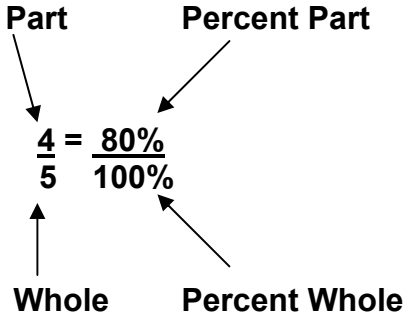
Closure/Conclusion: Say: Do you have any difficulties in determining the part and whole in percent word problems? Using what you have learned, how would you solve a percent problem when the part is missing? Explain the process of substituting know values into the correct position when setting up a proportion.

Follow-up Lessons/Activities: Use the Comparison Alley graphic organizer to compare advertisements that you found on the Internet or in periodicals. Indicate the percentage discounts on similar name brand products and survey any proposed savings. Indicate the differences in large percentage discounts on various priced items vs. small percentage discounts of greater and lesser priced items.



Solving Percent Problems

A percent problem can be solved by setting up a proportion that shows that the relationship between the part and the whole is the same as the relationship of a percent part to 100%.



A proportion occurs when two ratios are equal to each other. The proportion below can be stated as*: "a is to b as c is to d."* This also can be written in the fractional form as:

$$\frac{a}{b} = \frac{c}{d} \qquad \frac{\text{part}}{\text{whole}} = \frac{\text{part \%}}{\text{whole\%}}$$

Example 1) What is 40% of 120? You are looking for the **part** of 120.
Set up the proportion: $\frac{n}{120} = \frac{40}{120}$

Example 2) 18 is what percent of 72? You are looking for the **percent** part.
Set up the proportion: $\frac{18}{72} = \frac{n}{100}$

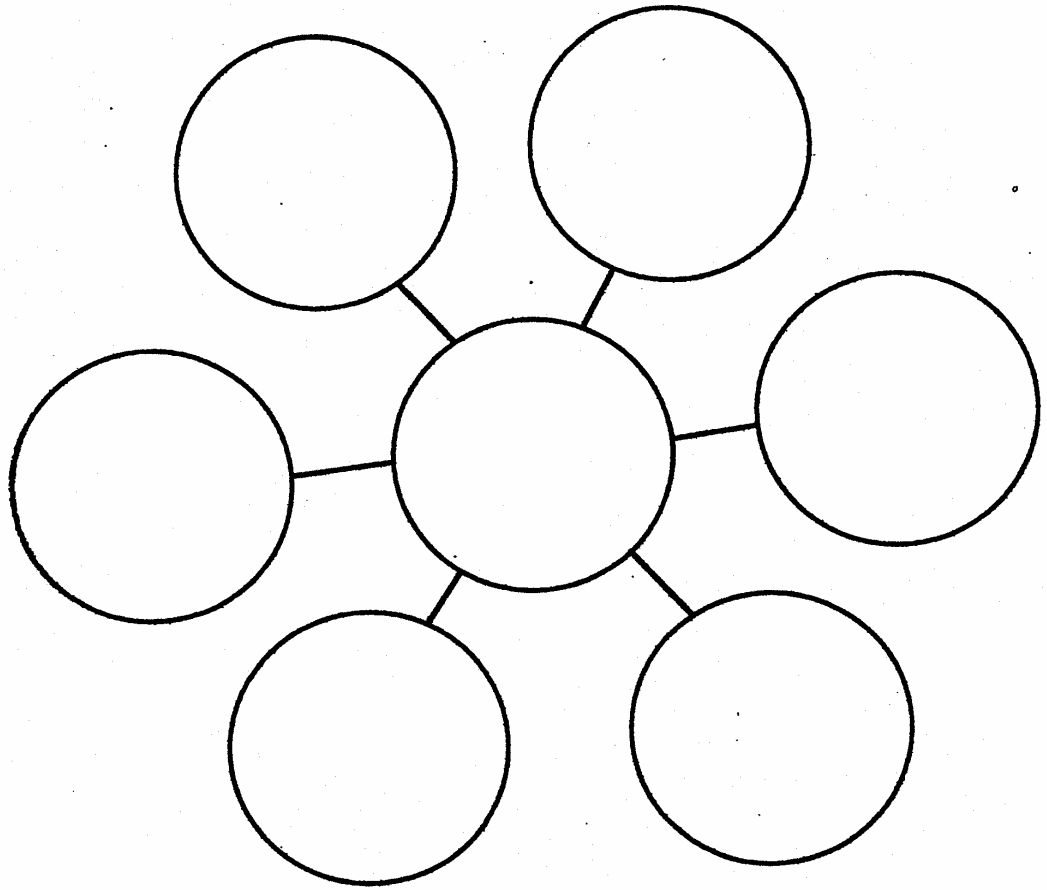
Example 3) 24 is 40% of what number? You are looking for the **whole**.
Set up the proportion: $\frac{24}{n} = \frac{40}{100}$

Solving Percent Problems

Use the proportion sample to set up a percent problem. To solve a percent problem you must first:

- Read the problem carefully
- Next decide if the number you are looking for is the **part**, the **whole,** or the **percent part.**
- The percent whole is always 100%.
- Often, to find the whole or the percent part, it is usually most reliable to use a proportion to solve the problem.

Bubble Map **Name** _____



Bubble Map for Describing Using Adjectives and Adjective Phrases

OMPARISON ALLEY
Compare/Contrast

Subject:

Differences

Comparison Alley

Similarities

Differences

Subject:

COMPARISON ALLEY

Compare/Contrast

Directions: use the comparison alley graphic organizer to compare two ides in the corner sections at the top and bottom; compare similarities in the center diagonal.

- % Investigate the internet or periodicals to search for advertisements indicating percentage discounts on similar name brand products and survey any proposed savings.
- % Use graphic organizer to solve and compare percentage discounts from advertised discounted prices on similar products.

Math Tool Helps FBI Store

The FBI has a database of 200 million fingerprint records stored in the form of inked impressions on paper cards. With 30,000 new cards a day coming in from all over the country, the Bureau faced a serious data storage and retrieval problem. In " Fingerprints Go Digital," an article in the November 1995 issue of Notices of the AMS, Christopher M. Brislawn describes the mathematics behind a state-of-the-art solution developed at Los Alamos National Laboratory.

The solution uses a mathematical tool called wavelets. Like the Fast Fourier Transform, which has been used by scientists and engineers for many years now, wavelets provide a means of representing and organizing complicated data by breaking it into smaller, more tractable mathematical components. For example, such tools have been used to break human speech into its harmonic components, thereby helping to create computers that can imitate and recognize human speech.

In addition to representing information in simpler component parts, wavelets have the capability to ``zoom in'' on particularly complicated portions of the data. For this reason, wavelets are especially suited to the compression of images for computer storage, making them a natural choice for the solution of the FBI's fingerprint problem.

-Allyn Jackson

Mind-Reading Number Trick

Think of a number, any positive integer (but keep it small so you can do computations in your head).

1. Square it.
2. Add the result to your original number.
3. Divide by your original number.
4. Add, oh I don't know, say 17.
5. Subtract your original number.
6. Divide by 6.

The number you are thinking of now is 3!

How did I do this?

Presentation Suggestions:

Ham it up with magician's patter. Step 4 could be anything you want---someone's age, or their favorite number--- just ask the crowd for suggestions. (This will change the final outcome of Step 6, but see below for how.)

The Math Behind the Fact:

Clearly no matter what you start with, the answer should come out the same (zero wasn't allowed because of Step 3). We can see why this trick works by using a little bit of high school algebra! If you follow the instructions starting with the variable X instead of an actual number, you will see that X is eliminated by Step 5.

Using this idea, you can make up your own mental math trick right on the spot! (Just don't do anything too obvious, like tell people to add 5, subtract their original number, and say "the number you are thinking of is 5".)

Mathematics Unlocks Mysteries of the Universe

What is the shape of the universe? Is it finite? These are two of the most important questions in cosmology today. Mathematics is providing striking new insights into deducing the shape of the universe from observational data. These insights, which will be put to the test in the coming decade as scientists receive data from a new space probe, have the potential to transform our view of cosmology.

Gazing out into the night sky, one easily gets the impression that the universe continues forever in all directions. However; this impression is akin to thinking that the Earth is flat and continues forever in all directions because that is how it appears when one scans the horizon. Fairly sensitive measurements are needed to detect the curvature of the Earth. The same is true for detecting the shape of the universe.

One possible shape the universe might have is analogous to the surface of a doughnut. Mathematicians call this shape a torus, and it is a fundamental object of study in the areas of geometry and topology. The torus model has a weird property: For every object we observe in the universe, we would see not one but multiple images of the object. These images correspond to light emitted by the object at different points in time and at different angles. In fact, mixed in with all the observational data cosmologists collect would be multiple images of our very own galaxy. Taken together, these images would provide information about some fundamental properties of the shape of the universe.

The problem is that we cannot recognize these images of our own galaxy; we do not even know what it looks like from the "outside". However, the Cosmic Microwave Background radiation---the after-glow of the Big Bang that permeates the universe---may provide some clues. For this approach to work, more detailed data of the CMB is needed. By 2002, NASA's Microwave Anisotropy Probe will have furnished more accurate data with much better resolution than is available today.

These ideas are explored in the article "Measuring the Shape of the Universe" by Neil J. Cornish and Jeffrey R. Weeks, which appeared in the December 1998 issue of the *Notices of the AMS*.

--- *Allyn Jackson*

Short Biographies

Niels Henrick Abel

one of the foremost mathematicians of the 19th century, was born in Norway on August 5, 1802. At the age of 16, he began reading the classic mathematical works of Newton, Euler, Lagrange, and Gauss. When Abel was 18 years old, his father died and the burden of supporting the family fell upon him. He took in private pupils and did odd jobs, while continuing to do mathematical research. At the age of 19, Abel solved a problem that had vexed leading mathematicians for hundreds of years. He proved that, unlike the situation for equations of degree 4 or less, there is no finite (closed) formula for the solution of the general fifth-degree equation.

Although Abel died long before the advent of the subjects that now comprise abstract algebra, his solution to the quintic problem laid ground work for many of these subjects. In addition to his work in the theory of equations, Abel made outstanding contributions to the theory of elliptic functions, elliptic integrals, Abelian integrals, and infinite series. Just when his work has beginning to receive that attention it deserved, Abel contracted tuberculosis. He died on April 6, 1829, at the age of 26. In 1870, Camille Jordan introduced the term *Abelian group* to honor Abel. Norway has issued five stamps and a 500-kroner bank note to honor Abel.(1)

Emil Artin

was one of the leading mathematicians of the 20th century and a major contributor to linear algebra and abstract algebra. Artin was born on March 3, 1898, in Vienna, Austria, and grew up in what was recently known as Czechoslovakia. After serving in the Austrian army during World War I, Artin enrolled at the University of Leipzig where he received a Ph.D. in 1921. From 1923 until he immigrated to America in 1937, he was a professor at the University of Hamburg. After one year at Notre Dame, Artin went to Indiana University. In 1946, he moved to Princeton, where he stayed until 1958. The last four years of his career were spent where it began, at Hamburg.

Artin's mathematics is both deep and broad. He made contributions to number theory, group theory, ring theory (in fact, there is a class of rings named after him), field theory, Galois theory, geometric algebra, algebraic topology, and the theory of braids -- a field he invented. Artin received the American Mathematical Society's Cole Prize in number theory, and he solved one of the 23 famous problems posed by the eminent mathematician David Hilbert in 1900. Besides mathematics, Artin had a deep interest in chemistry, astronomy, biology, and old music. He played the flute, the harpsichord, and the clavichord.

Artin was an outstanding teacher of mathematics at all levels, from freshman calculus to seminars for colleagues. Many of his PhD students have become leading mathematicians. Through his research, teaching, and books, Artin exerted great influence among his contemporaries. He died of a heart attack, at the age of 64, in 1962. (1)

Interdisciplinary Lesson Plans

Area/Skill	**Cognitive Skill Level**	**Submitted by**	**Location**
Mathematics, Language Arts Reading, Language Arts Writing	Knowledge, Comprehension, Application, Analysis, Synthesis, & Evaluation	Beth Weidlich	Pearl River Community College

Activity Title: Bob the Builder: Getting Ready to Carpet A Room

Goal/Objective:
Students will use various math skills to calculate area, average, and cost. Students will use organizational skills to collect data and create a graph. Students will use research and writing skills to obtain and select a bid on cost of an item.

Lesson Outline:

Introduction
As wise consumers, many adults do home building/remodeling on their own. In this lesson, students will learn the processes involved in carpeting a room.

Activity

1) Have students bring dimensions of a specific room in his/her home to next class meeting. Students will discuss formula for finding the area of a rectangle or square and will troubleshoot for problem areas when using measurements. Have students compute the area of his/her room and calculate the average of all students' rooms.

2) Discuss with students methods of organizing collected information and the various types of graphs on which information may be illustrated. Have students select the type of graph or graphs that would best display their data – the areas of all students' rooms. Answer: line or bar. Discuss ways to set up line/bar graphs. Divide students into small groups and have groups create/prepare a graph. (Assign half of the groups line graphs and the other half bar graphs.) Groups will display and analyze constructed graphs.

3) Have each group locate a different carpet vendor in the phone book and write a business letter requesting the price of new carpet. (Discuss ways to write business letters.) When vendors have responded, have groups select best price on carpet and compute cost of new carpet for his/her room.

Debriefing/Evaluation Activity
Math computations will be evaluated for accuracy. Checklists will be used to evaluate graphs (Ex: appropriate graph title, appropriate intervals of measure, etc.) Checklist will be used to evaluate business letter. Proofreading will be done by other groups and teacher.

Real-Life Connection: Many people do home repairs, remodeling, and building on their own. Whether building a dog pen, laying floor covering, fencing a garden, etc., the skills in this lesson are essential. Business letters may also be used to inquire about a job and request all types of information. Reading graphs help us interpret necessary information such as reliability of cars, best brands of items to purchase, etc. Making graphs can help us monitor monthly expenses, monitor individual health issues (blood pressure, weight, etc.), and other important information.

Materials/Texts/Realia/Handouts

Paper, pencils, pens, colored markers/pencils, rulers, poster board, blackboard
Worksheet displaying business letters
Calculator
Computer
Checklist to evaluate business letter (rubric)
Checklist to evaluate bar/line graphs (rubric)

Extension Activity

Use the Internet to *Consumer Report* magazine to research the best materials/equipment on the market to do home projects
or
research best store (ex: Home Depot, Lowe's) to buy materials/equipment need for home projects.

ESE Accommodations

Team students in a manner to accommodate various functioning levels.

Calculator

Interdisciplinary Lesson Plans - Script

Area/Skill Mathematics, Language Arts, Writing Language Arts, Reading	**Cognitive Skill Level** Knowledge, Comprehension, Application, Analysis, Synthesis, & Evaluation	**Submitted by:** Beth Weidlich	**Location** Pearl River Community College

Activity Title: Bob the Builder: Getting Ready to Carpet a Room

Introduction
Say: How many of you have done building or remodeling projects on your hours? What type of projects have you done? In the coming days we will learn how to begin he task of carpeting a room. We will also explore ways to collect, organize, and report information using a graph.

Main Activity
Say: (Script over several says) Tomorrow please bring in measurements of a specific room in your home.

Next day say: today we will discuss how to find the area of your rooms and compute the average room size. We will also explore ways to collect, organize and report information on a graph. Lastly we will locate a carpet vendor in our area and write a letter requesting prices for new carpet.

Day after receiving prices from vendors, say: Today you will decide what the best buy on carpet is and calculate the cost of new carpet for your room.

Closure/Conclusion
Discuss what other home projects involve finding the area, what other situations might require writing a business letter, and how interpreting and analyzing graphs is relevant to real life and work environments.

Follow-up Lessons/Activities
Each group will design a deck for a house. Research will be done to make a specific list of materials needed (amounts, sizes, etc.).
Groups will write letters to vendors requesting bids on various materials and then compute the cost of deck.

Interdisciplinary Lesson Plans

Area/Skill Math Language Arts Writing Language Arts Reading	**Cognitive Skill Level** Comprehension, Analysis Application	**Submitted by** Dot Bozeman	**Location** Hinds Community College

Activity Title: Get The Most For Your Money

Goal/Objective: Use percentage to find the part of a number when the percentage of the whole is known or to find the whole number when the part or percentage is known. To compute percentages in real world situations, and to teach the percentage method, write and construct sale papers and create an awareness of consumer concerns.

Lesson Outline (Introduction)
Percentages are used in our daily lives. We hear about discounts from the media. We see these discounts stated in the form of a percentage. Even the scores on our exams are computed in percentages.

Activity
Have students use the percentage box to identify the part, whole, or percent of a number. Then, use the formula to solve problems.

Debriefing/Evaluation Activity
Have students review the process of setting up a problem and using the formula to solve the problem. Ask them if this method will work with any percentage problem.

Real-Life Connection: Sometimes ads provide percentages off of the original price rather than stating the actual reduced price. Pass out sale papers to the class from various stores and have them compute original prices, percentages off, and savings. Then have them compare ads which have the same items. Compare the items from store to store and have students project the cheapest price prior to figuring out the actual cost.

Materials/Texts/Realia/Handouts

Handout – Percentage Box
Paper and pencils
Newspaper advertisements
Chart paper/ scissors, markers
Calculators

Extension Activity
Have the students use the percent box to figure out percentage problems that they may encounter at home, work, etc.

ESE Accommodations
Have students work in groups of twos.

Provide students with calculators to work the problems.

Identify each step of the process needed to solve percentage problems.

Interdisciplinary Lesson Plans - Script

Area/Skill Math Language Arts Writing Language Arts Reading	**Cognitive Skill Level** Analysis, Comprehension Application	**Submitted by** Dot Bozeman	**Location** Hinds Community College

Activity Title: Get The Most For Your Money

Introduction

Say: Everyday we are involved in situations where percentages occur. Can you always determine the best bargain when you shop? We use percents to figure sale prices when shopping to determine how much we can save or to find the original price of an item when we know the sale price. Today we will use the percentage box to help us figure out how much we are saving. As this lesson unfolds, we will also design an ad for the newspaper and write an ad for the radio.

Main Activity

Pass out handout (percentage box).

Say: The percent box can help us figure the answers to some problems that we meet on a daily basis. A percent box contains (4) four boxes within a larger box. Each of the small boxes represents a part of the percent problem. P equals % and W equals the whole. To find out what the part is, you multiply diagonally and divide by the remaining number. A percentage box is a simple way to make sure that you include all of the known facts when doing percentage problems. To use a percentage box, you first need to read the question. Notice that the bottom right hand box should always be filled with the number 100.

P	**%**
W	**100**

Conclusion

This percent formula will work with any type of percentage problem

Follow-up Lessons/Activities

Have students write an ad informing the public about a store that is going out of business and with discounts of 10, 20, 30, 40, 50, and 60 percent discounts. Assign homework to students which will calculate items with percentages.

Interdisciplinary Lesson Plans
For
ABE/GED/ESL Instructors

The lesson plans in this book are designed to foster critical thinking skills through teaching across the curricula. Each lesson plan contains at least three of the five areas tested on the GED test; additionally, each lesson has an activity designated to math or science. Graphic organizers, timelines, charts, reading samples, and realia are also basic components of the lesson plans.

Plans have been scripted to facilitate teacher use and also to lessen prep time for teachers. Each lesson also contains the following relevant information:

1. **The cognitive skill level of the activity using Bloom's taxonomy.**
2. **A debriefing/evaluation activity.**
3. **A real-life connection activity which explains how people in real life would use the skills taught.**
4. **An extension activity which allows the students to expand the skills developed through the activity.**
5. **Accommodations for adults with special needs.**

ABE/GED Interdisciplinary Lesson Plans

		Discipline				
		Math	Science	Social Studies	Language Arts Reading	Language Arts Writing
	Lesson Title					
1	Bob the Builder: Getting Ready to Carpet A Room	√			√	√
2	Solving Percent Problems	√			√	√
3	Perimeter	√			√	√
4	Wheel of Fortune (Probability and Statistics	√			√	√
5	Area Code Math	√		√	√	
6	Constructing A Simple Line Graph	√		√		√
7	The Tree	√		√		√
8	Only the Strong Survive		√	√		√
9	Spring Has Sprung	√	√	√	√	
10	The Flask – Multi-Disciplinary Problem Solving	√	√	√	√	√
11	Coming to America By Way of the North Pole		√	√		√
12	Cloning	√	√			√

ABE/GED Interdisciplinary Lesson Plans

		Discipline				
		Math	Science	Social Studies	Language Arts Reading	Language Arts Writing
Page	Lesson Title					
13	The Right to Vote	√		√		√
14	The Space Shuttle	√	√	√	√	√
15	Traveler's Advisory	√		√	√	
16	A Comparison of Mississippi's Campgrounds	√	√	√	√	√
17	Plan A Trip (Within the United States)	√		√		√
18	Traveling the State	√		√	√	
19	Got Milk?	√	√		√	√
20	Buyer Beware: How Hidden Messages In Advertising Affect Purchases	√		√		√
21	Shopping for Supper or Menu to Meal	√		√	√	√
22	Money/Money Management	√		√		√

ABE/GED Interdisciplinary Lesson Plans

		Discipline				
		Math	Science	Social Studies	Language Arts Reading	Language Arts Writing
Page	Lesson Title					
23	Life Skills – Usefulness of Consumer Products	√		√	√	
24	Reading Pictures	√			√	√
25	The Biological Clock Can Affect Student Performance	√	√			√
26	Getting the Most for Your Money	√			√	√