



Arithmetic, Art, and Advertising

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Arithmetic, Art, and Advertising Curriculum Unit Overview

Summary

This particular unit is designed to stimulate students' interest in the applications of math in the business world, even when it seems unrelated. We will attempt to simulate a real situation that a new business might face as they try to create an identity for themselves and still stay within a meager budget. This module may be adjusted for different age levels by adding projects or challenges to the existing assignments. As it is written it is most appropriate for 7th through 9th grade students, as they will have the basic mathematical skills necessary to calculate.

Big Picture

You have just been hired on as a team for a new business. Your team's assignment is to advertise the product or service in the most cost effective method possible. Each team of students will be assigned a particular way to advertise. They will be given all of the data needed to decide how much it will cost per person reached by that method. For example: A team is given newspaper ad as their form of advertising. Each newspaper run reaches approximately 1,300 people each day and costs about \$120 per day it is run. All teams will receive the same budget and they will have to calculate how many people they will reach and how much it will cost per single person. The students will be given about 10 minutes to calculate this data and discuss what they found. Each team will do an initial report of their calculations and we will follow up with a teacher led discussion.

Preparation for the Unit

Work with Computer Services Coordinator to:

Set up computer lab time for students to search the net and create their piece of advertisement. Also, set up a general introduction to power point and other software students may choose to use on their final product.

Work with local advertising business to:

Arrange a day to have a speaker come and discuss real numbers for cost of advertising, including budget and how many people might be reached. They will also discuss their educational background and technical skills needed for their job.

Overview

On the following page is a summary of the unit including brief summaries of each Authentic Learning Task (ALT). This table provides an overview of the tasks in the unit sections and shows how the activities in the different teaching areas relate to each other.

Mathematics in Advertising Curriculum Unit Summary

Communications and Math	Advertising and Art	Business Connections
<p>ALT 1 - Real Cost Speaker will come in to discuss with students what it really costs and how to decide what methods of advertisement are most cost effective and why. Students will Q and A based on their “hook” activity. The speaker may also briefly discuss what type of educational background they must draw upon for their particular job.</p>	<p>ALT 1 – Technology and Art Students will do some hands on lab work with the assistance of the computer services personnel and the teacher. They will learn the basics of power point and other common computer software available at the school. They are not, however, limited to these particular resources.</p>	<p>ALT 1 – Cleaning Up Students are to take all of their information and start to compile it into a professional format that might be acceptable in a business world.</p>
<p>ALT 2 – What are we selling? Students will be broken into small groups of 3-4 to decide what their business is going to be and how they plan to sell it.</p>	<p>ALT 2 – Art and Aesthetic Appeal In this activity students will brainstorm different forms of advertisements they have seen and which ones were effective than others. When they compile some examples, they will then think of all of the characteristics of this particular advertising method that make it so appealing or effective.</p>	<p>ALT 2 – Preparing for Presentation In this activity students will prepare to present their project to the class as if it were being presented to a potential buyer. They will be required to create a power point presentation and present hard copies of all of their advertisement products. Lab time will be provided again with teacher assistance.</p>
<p>ALT 3 – How do we market? This is the activity where students will identify the best and most cost effective ways to sell their product or service. They must chose to two and support their reasoning behind their two choices.</p>	<p>ALT 3 – Getting Creative In this activity, students will turn on their creative juices. They must design a logo or theme to use in their business and create two products that use this logo or theme. They may use any technology available to them. Some lab time will be provided.</p>	<p>ALT 3 – The Wrap Up Teams will present their entire project using their hard copies and power point presentations as visual aides. They will practice professional behavior and the class will help assess their efforts.</p>

Transfer Activity

I am using Section 3, ALT 3 as my transfer activity.

Section One: Communications and Math

ALT One: Real Cost

Summary

Speaker will come and provide information in addition to “hook” activity. Students will discuss possibilities and ask questions pertaining to the real cost of advertising.

Competencies

Students will learn to seek out additional information to make their project as productive and accurate as possible.

Time

Limited to length of time speaker is available, approximately 40 minutes or so

Materials

“hook” activity results
question stimulating worksheet (see appendix)

Instructions

1. Students will listen to speaker and identify useful information on their worksheet.
2. Students will question speaker regarding information provided.

Evaluation/Assessment of Student’s Competency

Students will work as team to produce a “what did I learn?” sheet, identifying things that interested them and facts that might prove to be useful in the coming weeks as the project progresses.

Closure

We will briefly discuss what the entire class has learned allowing teams to share their thoughts. As we wrap up this discussion we will try to identify things that interest their age group, such as products they use and how they found out about them.

Section One: Communications and Math

ALT Two: What are we selling?

Summary

Students will meet with their teams and identify what kind of business, product, or service that they will be advertising. They will also discuss methods to advertise.

Competencies

Students will learn to cooperate and negotiate to make a group decision. They will also learn to eliminate ideas based on facts and best outcomes.

Time

Approximately 40 minutes or so depending on efficiency of groups

Materials

Handout 1, ALT 2
Writing Utensil

Instructions

1. Brainstorm, on a scrap piece of paper, all of the possible businesses that might interest your particular age group.
2. Take the results from your brainstorming and identify some of the strongest ideas. Choose the three best and discuss their strengths and weaknesses.
3. Identify your number one choice and make a list of possible ways to advertise your business.

Evaluation/ Assessment of Student's Competency

If students cooperate and complete this assignment, it will have produced an initial idea to start their project from. They will also have a list to start themselves on the next ALT.

Closure

Students will turn in their sheets for feedback and suggestions for improvement. As a class we will compile a list of as many possible ways to advertise as they can think of.

Communications and Math ALT Two: Handout One

Top Three Business Ideas:

- 1.)
- 2.)
- 3.)

IDEA	STRENGTHS	WEAKNESSES
1)		
2)		
3)		

Number One Choice: _____

Ways to Advertise:

Section One: Communications and Math

ALT Three: How do we market?

Summary

Students will come up with their top two strategies of marketing by choosing the most cost effective way to sell their business.

Competencies

Students will learn to calculate certain numbers needed to determine the most cost effective way to advertise. They will learn to make a decision based on facts.

Time

Approximately 35-45 minutes

Materials

ALT Two, Handout One
ALT Three, Handout One
Writing Utensil

Instructions

1. Discuss formulas as a class. Decide what each formula does and what data we need to use to compare information.
2. Do practice problem at top of handout.
3. Complete handout and make conclusions and support them with the data acquired from the handout.

Evaluation

Students will turn in a completed worksheet with their final conclusions on it. This will be their starting point for the next part of the unit.

Closure

As a class we will discuss the possible ways to advertise that we listed previously and identify ways to produce this kind of advertisement. We will discuss possible types of technology and what we can access in our own school.

Section 2: Advertising and Art

ALT One: Technology and Art

Summary

Students will receive an introduction to some basic programs available through the school for them to use on their project.

Competencies

1. Students will learn the basics of power point and other Microsoft office applications.
2. They will do some hands on short projects with the assistance of the computer resource person and the teacher.

Time

Approximately 2 hours to 3 hours depending on student abilities

Materials

Computer lab time

Instructions

- 1.) Students will learn how to access program first
- 2.) Teacher will demonstrate a step and students will find and practice that step at their computer with their partner
- 3.) Each pair will produce a final product of each short instruction of programs
- 4.) When finished with one program, students will explore another program

Evaluation/ Assessment of Student's Competency

Students will each save and turn in their work from participating. They will also demonstrate use in their final products.

Closure

Discuss as a class how these programs might be useful in their particular method of advertising.

Section Two: Advertising and Art

ALT Two: Art and Aesthetic Appeal

Summary

Students will identify characteristics that appeal to them using media that they have been exposed to.

Competencies

Students will connect the characteristics of advertisement to their project and use them to create an effective marketing style.

Time

Approximately ½ hour to 40 minutes

Materials

Handout one, ALT Three
Handout two, ALT Three

Instructions

- 1.) Students will identify commercials, ads, billboards, and other forms of advertisement that they have seen.
- 2.) They will compare characteristics that make each more appealing to the sales market.
- 3.) Complete handout and use results for next section of project.

Evaluation/ Assessment of Student's Competency

Students will now be able to combine information they have gathered over that last few days and compile an actual project to begin.

Closure

They will fill out a second handout, which will get them started on the next project.

Advertising and Art ALT Two: Handout One

Part I: Think of advertisements you have seen in magazines, newspaper, television and other forms of media. **Consider Questions:**

- Which ones caught your attention?
- Which ones did you remember longest?
- Did you remember a specific product because of the advertisement you saw?
- What caught your attention about them? Was it a logo? A color? A slogan or name?
- What made one advertisement better than another advertisement?

List your thoughts here...

Part II: Consider what techniques used might prove most useful to your team. Brainstorm some techniques that your team might want to use when you start your advertisement.

Use the space below and the backside for as many brainstormed ideas as possible.



Advertising and Art ALT Two: Handout Two

Fill in this form for use on the next part of the project.

- **What is your business?**

- **What are your two forms of advertisement?**

- **Name some techniques you have chosen to use as you prepare to start your advertisement campaign.**

- **Think! What will you need to do next? Have you missed anything so far? Jot your thoughts!**

ALT Three: Getting Creative

Summary

Students will now begin to create their logo or theme to promote their business.

Competencies

Students will have completed a working logo or theme and begin to use it in their method of advertisement.

Time

Approximately 3 hours, time may be increased due to computer lab time and ability of students

Materials

These will vary depending upon teams' needs

Possible needs:

- Computer and paper
- Coloring utensils
- Drawing paper
- Poster board

Instructions

- 1.) Students will brainstorm different themes or logos including color schemes and even slogans.
- 2.) They can sketch their ideas and begin to create their ideas on the computer.
- 3.) Students must draft and finalize both pieces of advertisement.

Evaluation/ Assessment of Student's Competency

Students will turn in a rough draft and final copy of both pieces of their media they have created. They will receive a rubric that goes with their product to use as a checklist.

Closure

Students can fill out, as a team, a rubric for each team's final product and also begin to make suggestions to each other on how to present their pieces.

Section Three: Business Connections

ALT One: Cleaning Up

Summary

Students will now take class suggestions and their rubrics and meet to discuss how they want to present their work.

Competencies

Students will have decided on tasks to be completed in order to do their presentation. They will have these tasks defined and distributed among the team members.

Time

25 -35 minutes

Materials

ALT One, Handout One

Instructions

- 1.) Students will review their evaluations as a team and discuss possible improvements.
- 2.) Students will then begin to decide on how to do their presentation. They will create a task list.
- 3.) Once they have created a task list, they will then designate someone to complete each task.

Evaluation/ Assessment of Student's Competency

Students will turn in their handout to the teacher for evaluation of teamwork.

Closure

Class will discuss rules of computer lab and define exactly what they must complete in time allotted for next ALT.

Section Three: Business Connections

ALT Two: Preparing for Presentation

Summary

Students will now enter the computer lab to complete the power point presentation of their project.

Competencies

At the end of the time given, students will have created a working presentation to be used in their final presentation.

Time

Approximately 2-3 hours depending on student skill again

Materials

All handouts completed so far
Computer Lab
3 ½" floppy disks

Instructions

- 1.) As a team students will create a 5-8 slide show using power point.
- 2.) They will also create note cards with narration for each team member to read in their presentation.
- 3.) They will finish preparing and organizing for their final presentation.

Evaluation/ Assessment of Student's Competency

Students will have completed their power point presentation with all corrections in their work finished.

Closure

We will discuss how their presentations will be organized including order, time limits, ect. We will also cover how to be professional and how each team will be evaluated.

Section Three: The Wrap Up

ALT Three: The Wrap Up

Summary

Teams will present their final product and discuss what they have learned.

Competencies

Students will turn in hard copy of work, all worksheets, and disk with presentation on it.

Time

Varies depending on class size

Materials

Computer w/ T.V. attachments for presentation
ALT 3, Grading Rubric (Student Feedback Sheet)

Instructions

- 1) Each team will receive a grading rubric to evaluate other teams.
- 2) Each team will be called upon to present for 5-10 minutes on their project and its results.
- 3) Team members will get together and discuss how their presentation went and do a self evaluation.

Evaluation/ Assessment of Student's Competency

Student evaluation and feedback sheets should demonstrate understanding of project and how it all connects.

Closure

Students will wrap up their self evaluation and turn in their final products.

The Wrap Up ALT 3: Grading Rubric (Student Feedback)

Standard	No Credit (0)	Poor (1)	Good (2)	Above Average (3)	Excellent (4)	Total
Power Point Show						
Organization						
Pieces of Advertisement						
Creativity						
Overall Project						

Final Score _____

Student Feedback-What did you think?

What were your favorite parts about this team’s project and presentation?

What do you think would help to improve their overall project or presentation?