

**Applied Multimedia  
Grade 8  
2008**

**COURSE DESCRIPTION:**

Multimedia is a communications medium that refers to the combined uses of text, graphics, photos, audio, and video to enhance the computer's role as a communications tool. Students in grade 8 have gained a sufficient level of technology skills that will enable them to comprehend the process of producing relevant multimedia projects. Most students have completed subsequent technology classes that provided them with basic skills necessary for an advanced class such as Applied Multimedia. This course is designed for students to be active participants in their progress as they continue to build upon previously learned skills when integrating various forms of media.

In addition, Applied Multimedia will provide students with the opportunity to work with others in a group environment and improve presentation skills while developing practical skills required for Media Production. Students will have one semester or two marking periods to enhance previously learned skills across the curriculum and acquire new knowledge that will be developed in a manner where each additional proficiency adds to their individual foundation competencies. Projects range from usage of components such as digital cameras and digital camcorders to the manipulation of video and animation to create a final project(s).

**CORE CURRICULUM CONTENT STANDARDS:**

STANDARD 8.1 (COMPUTER AND INFORMATION LITERACY) ALL STUDENTS WILL USE COMPUTER APPLICATIONS TO GATHER AND ORGANIZE INFORMATION AND TO SOLVE PROBLEMS.

**Descriptive Statement:** Using computer applications and technology tools students will conduct research, solve problems, improve learning, achieve goals, and produce products and presentations in conjunction with standards in all content areas, including career education and consumer family, and life skills. They will also develop, locate, summarize, organize, synthesize, and evaluate information for lifelong learning.

**Cumulative Progress Indicators**

**Building upon knowledge and skills gained in preceding grades, by the end of Grade 8, students will:**

**A. Basic Computer Skills and Tools**

1. Use appropriate technology vocabulary.
2. Use common features of an operating system (e.g., creating and organizing files

- and folders).
3. Demonstrate effective input of text and data, using touch keyboarding with proper technique.
  4. Input and access data and text efficiently and accurately through proficient use of other input devices, such as the mouse.
  5. Create documents with advanced text-formatting and graphics using word processing.
  6. Create a file containing customized information by merging documents.
  7. Construct a simple spreadsheet, enter data, and interpret the information.
  8. Design and produce a basic multimedia project.
  9. Plan and create a simple database, define fields, input data, and produce a report using sort and query.
  10. Use network resources for storing and retrieving data.
  11. Choose appropriate electronic graphic organizers to create, construct, or design a document.
  12. Create, organize and manipulate shortcuts.

## **B. Application of Productivity Tools**

### **Social Aspects**

1. Demonstrate an understanding of how changes in technology impact the workplace and society.
2. Exhibit legal and ethical behaviors when using information and technology, and discuss consequences of misuse.
3. Explain the purpose of an Acceptable Use Policy and the consequences of inappropriate use of technology.
4. Describe and practice safe Internet usage.
5. Describe and practice “etiquette” when using the Internet and electronic mail.

### **Information Access and Research**

- Choose appropriate tools and information resources to support research and solve real world problems, including but not limited to:
  - ♣ On-line resources and databases
  - ♣ Search engines and subject directories
- Evaluate the accuracy, relevance, and appropriateness of print and non-print electronic information sources.

### **Problem Solving and Decision Making**

- Use computer applications to modify information independently and/or collaboratively to solve problems.
- Identify basic hardware problems and demonstrate the ability to solve common problems.
- Determine when technology tools are appropriate to solve a problem and make a decision.

## **CUMULATIVE PROGRESS INDICATORS:**

### **8. Technological Literacy**

STANDARD 8.1 (Computer and information literacy ) All students will use computer applications to gather and organize information and to solve problems

### **Strands and Cumulative Progress Indicators**

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## **8. Technological Literacy**

STANDARD 8.2 (Technology Education) All students will develop an understanding of the nature and impact of technology, engineering, technological design, and the designed world as they relate to the individual, society, and the environment.

### **Strands and Cumulative Progress Indicators**

Building upon knowledge and skills gained in preceding grades, by the end of **Grade 8**, students will:

#### **A. Nature and Impact of Technology**

- Describe the nature of technology and the consequences of technological activity.
- Describe how components of a technological product, system, or environment interact.
- Describe how one technological innovation can be applied to solve another human problem that enhances human life or extends human capability.
- Describe how technological activity has an affect on economic development, political actions, and cultural change.
- Explain the cultural and societal effects resulting from the dramatic increases of knowledge and information available today.

#### **B. Design Process and Impact Assessment**

- Demonstrate and explain how the design process is not linear.
- Use hands on activities to analyze products and systems to determine how the design process was applied to create the solution.
- Identify a technological problem and use the design process to create an appropriate solution.
- Describe how variations in resources can affect solutions to a technological problem.
- Select and safely use appropriate tools and materials in analyzing, designing,

modeling or making a technological product, system or environment.

### **C. Systems in the Designed World**

- Explain technological advances in medical, agricultural, energy and power, information and communication, transportation, manufacturing, and construction technologies.
- Explain reasons why human-designed systems, products, and environments need to be monitored, maintained, and improved to ensure safety, quality, cost efficiency, and sustainability.
- Explain the functions and interdependence of subsystems such as waste disposal, water purification, electrical, structural, safety, climatic control, and communication.

### **SUGGESTED ACTIVITIES THAT ADDRESS THESE STANDARDS MAY INCLUDE BUT ARE NOT LIMITED TO:**

Typical projects in Applied Multimedia may include:

- **Collaborative group/ Newsroom**
- **Individual study/ Technology**

#### *Collaborative Group Work* **“Newsroom”**

The news segment will be built around a current event. (Possibly: medical, agricultural, energy and power, information and communication, transportation, manufacturing, and construction technologies). Students will connect the event with science, social studies/ geography, and then match and a real life solution or educated opinion for today’s modern world. Students will provide the viewer/ audience with 10 images related to each educational connection and write a script for the 10-minute production. Students will create and record a skit that introduces their topic and summarizes their learning outcomes for the news report. The production will be edited in a way where the audience is entertained as they learn about the special report.

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## **B. Application of Productivity Tools**

### **Social Aspects**

- Exhibit legal and ethical behaviors when using information and technology, and discuss consequences of misuse.
- Describe and practice “etiquette” when using the Internet and electronic mail.

### **Information Access and Research**

- Choose appropriate tools and information resources to support research and solve real world problems, including but not limited to:
  - ♣ On-line resources and databases
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- Evaluate the accuracy, relevance, and appropriateness of print and non-print electronic information sources.

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## **CUMULATIVE PROGRESS INDICATORS:**

### **8. Technological Literacy**

#### **STANDARD 8.1**

### **Strands and Cumulative Progress Indicators**

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STANDARD 8.2 (Technology Education) All students will develop an understanding of the nature and impact of technology, engineering, technological design, and the designed world as they relate to the individual, society, and the environment.

### **Strands and Cumulative Progress Indicators**

#### **B. Design Process and Impact Assessment**

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### **C. Systems in the Designed World**

- Explain technological advances in medical, agricultural, energy and power, information and communication, transportation, manufacturing, and construction technologies.

## *Independent Study* **History of Technology Award**

Students will develop an understanding of the nature and impact technology has had and has currently in our modern world including society and the environment. Students will connect Historical Events (such as wars or Presidents) to gain a better understanding/ connection of when certain advances were made in technology over the years. Students choose their favorite/ most valuable invention and make a case as to why it should win the lifetime technology award. Individual persuasive/ informative presentations will include several important historical events or concerns of the time that could have lead to its creation, the individual(s) responsible for the invention and describe reasons as to why the invention is award worthy.

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#### STANDARD 8.1

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### **INSTRUCTIONAL STRATEGIES:**

Generally, multimedia has two main areas of application: informational and instructional. Informational multimedia uses the online reference and presentation power of the computer to access and show information to the user. The teacher will be responsible for introducing these applications through the creation of hands on projects that require students to develop such presentations. Both applications will also be used as a method of instruction.

Multiple development stages and at least one test with the target audience are usually necessary when developing multimedia. The strategy will define not only what parts of the technology most need to be tested, but also what part of the design needs to be tested before full development begins. The teacher will provide students with the knowledge necessary for this task by utilizing technology in the classroom. Some resources can include the use of the in-class network where the teacher can send students assignments with instructional links to relevant websites. Instructional videos created with SmartBoard technology can also be sent to students to assist them with the production process.

The teacher will provide students with the following skills by developing integrated units of study into hands on projects using technology as the teaching tool. Projects and instructional videos/ websites will include:

- The manipulation of graphics and images: digital photographs, logo design, digital video, and interactive animation.
- The teacher will provide students with awareness for the value and power of Multimedia.
- The teacher will provide students with the latest applications and technological developments in the Multimedia industry.
- The teacher will provide information to assist students with reviewing source

- Multimedia content with confidence.
- The teacher will help students develop an awareness of the source content and offer substantive alternatives to problems arriving during the assembling of materials needed for a successful presentation.
  - The teacher will assist students so they appreciate the benefits by developing projects that showcase how multimedia can be a fun communications tool.
  - The teacher will demonstrate proper use of film equipments from digital cameras, video cameras and sound. Including ways of avoiding potential problems with importing video into a multimedia project.
  - The teacher will provide students with previously created short films with subtitle, titles, special effects, etc integrated in.
  - The teacher will provide students with tasks that involve working in teams.
  - The teacher will provide students with time to showcase their work by presenting their final projects to the desired audience.

### **EVALUATION/ ASSESSMENT OF STUDENTS:**

Although a rubric (*attachment*) will be the primary tool used to assess students. Because Multimedia is more than one concurrent presentation medium and is often used to showcase a combination of text, sound and/or motion video, students must display their understanding of this learning competency by showcasing the combination of elements listed below for final evaluation.

- Text and sound
- Text, sound, and still or animated graphic images
- Text, sound, and video images
- Video and sound
- Multiple display areas, images, or presentations presented concurrently.
- Generate graphs and charts
- Import complete text, video, audio, database and spreadsheet files
- Offer a good mix of drawing tools and a large quantity of high-quality copyright-free clip art
- Link to websites
- Provide a wide range of transitional effects (e.g. fades, wipes)
- Demonstrate appropriate presentation(s) manually and automatically depending on the desired presentation area of application (Informational and Instructional).

### **EVALUATION/ ASSESSMENT OF CURRICULUM:**

This course of study will be evaluated/ assessed by instructional staff during the first year of implementation for the purpose of necessary revision at the end of the first year. In addition, this course of study will be reviewed according to the Five-Year Curriculum Review Schedule.

**RESOURCE/ BIBLIOGRAPHY:**

[http://education.state.nj.us/cccs/?list\\_cpi;c=8;s=1;g=8](http://education.state.nj.us/cccs/?list_cpi;c=8;s=1;g=8)

MidLink Magazine (<http://www.ncsu.edu/midlink/>) or Multimedia Mania (<http://www.ncsu.edu/mmania/>)

<http://www.nj.gov/education/aps/njscp/Phase1allAreas.pdf#page=22>

<http://www.nj.gov/education/aps/cccs/tech/assessment/JCGrade7c.pdf>

<http://www.nj.gov/education/aps/cccs/tech/assessment/JCGrade6-8Science.pdf>



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|---|---|--|---|--|--|-----|
| <b>Originality</b>                            | The work is a minimal collection or rehash of other people's ideas, products, images and inventions. There is no evidence of new thought. | The work is an extensive collection and rehash of other people's ideas, products, images and inventions. There is little evidence of new thought or inventiveness. | The project shows some evidence of originality and inventiveness. While based on an extensive collection of other people's ideas, products, images and inventions, the work extends beyond that collection to offer new insights. | The project shows significant evidence of originality and inventiveness. The majority of the content and many of the ideas are fresh, original, and inventive. |  | x 3 |
| <b>Evidence That Objectives Were Met</b>      | No evidence that project content supports stated objectives.  | Little evidence that project content supports stated objectives.   | Some evidence that project content supports stated objectives.  | Clear evidence that project content supports stated objectives.  |  | x 3 |
| <b>Depth &amp; Breadth of Project Content</b> | No evidence that higher level thinking skills were used in the creation of this project.  | Little evidence that higher level thinking skills were used in the creation of this project.   | Some evidence that higher level thinking skills were used in the creation of this project.  | Clear evidence that higher level thinking skills were used in the creation of this project.  |  | x 2 |
| <b>Subject Knowledge</b>                      | Subject knowledge is not evident. Information is confusing, incorrect.  | Some subject knowledge is evident. Some information is confusing, incorrect, or flawed.  | Subject knowledge is evident in much of the project. Most information is clear.   | Subject knowledge is evident throughout the project. All information is clear, appropriate, and correct.   |  | x 2 |