Warren County School District

PLANNED INSTRUCTION

COURSE DESCRIPTION

Course Title: **Creating Technology**

Course Number: 00747

Course Description and Prerequisites:

Creating Technology is an activity-based course in which students form an enterprise (company).
Students participate in the organization and management of the enterprise; select and engineer a product; raise money; hire employees; engineer a production line; produce, advertise, and sell the products; and finally distribute profits. Students play varying roles to solve real-world design, engineering, production, financial, and marketing problems.

Prerequisite: Applying Technology

Final exam

Suggested Grade Level: Grade 8

Length of Course: X One Semester _____Two Semesters _____Other (Describe)_____

Units of Credit: None

PDE *Certification and Staffing Policies and Guidelines (CSPG)* Required Teacher Certification(s)
Technology Education CSPG # 65

Certification verified by WCSD Human Resources Department:
X Yes ____No

Board Approved Textbooks, Software, Materials:
Title:
Publisher:
ISBN #:
Copyright Date:
Date of WCSD Board Approval:

BOARD APPROVAL:

Date Written: 10/6/2006

Date Approved:_____

Implementation Year: 2007-2008

Suggested Supplemental Materials:

Exploring Technology; ITEA Resource Guide
Machinery Handbook (reference)
Architectural Graphic Standards (reference)

Course Standards

PA Academic Standards:

3.1.10 (A,C,D) Unifying Themes; 3.2.10 (D) Inquiry and Design; 3.6.10 (B,C) Technology Education; 3.7.10 (A,B,C,D) Technological Devices; 3.8.10 (A,B,C) Science, Technology and Human Endeavors

WCSD Academic Standards:)
None

Industry or Other Standards:
None

WCSD EXPECTATIONS

WCSD K-12 Expectations for instruction in writing, reading, mathematics and, technology have been developed and revised annually. The teacher will integrate all WCSD Expectations into this planned instruction

SPECIAL EDUCATION AND GIFTED REQUIREMENTS

The teacher shall make appropriate modifications to instruction and assessment based on a student's Individual Education Plan (I.E.P.) or Gifted Individual Education Plan (G.I.E.P.).

SPECIFIC EDUCATIONAL OBJECTIVES/CORRESPONDING STANDARDS AND ELIGIBLE CONTENT WHERE APPLICABLE

3.1.10 Unifying Themes

x – performance assessed during that semester

	Performance Indicator	1	2	Assessment
A.	Discriminate among the concepts of systems, subsystems, feedback, and control in solving technological problems.			Formative Assessments: • Objective quizzes • Written assignments • Use rubrics to assess process, not just product • Peer evaluations by rubric Summative Assessments: • Performance Assessments • Written tests
C.	Apply patterns as repeated processes or recurring elements in science and technology			
D.	Apply scale as a way of relating concepts and ideas to one another by some measure.			

3.2.10 Inquiry and Design

	Performance Indicator	1	2	Assessment
D.	Identify and apply the technological design process to solve problems.			Formative Assessments: • Objective quizzes • Written assignments • Use rubrics to assess process, not just product • Peer evaluations by rubric Summative Assessments: • Performance Assessments • Written tests

3.6.10 Technology Education

	Performance Indicator	1	2	Assessment
B.	Apply knowledge of information technologies to encoding, transmitting, receiving, storing, retrieving, and decoding.			Formative Assessments: • Objective quizzes • Written assignments • Use rubrics to assess process, not just product • Peer evaluations by rubric Summative Assessments: • Performance Assessments • Written tests
C.	Apply physical technologies of structural design, analysis and engineering, personnel relations, financial affairs, structural, production, marketing, research, and design to real world problems.			

3.7.10 Technological Devices

	Performance Indicator	1	2	Assessment
A.	Identify and safely use a variety of tools, basic machines, materials and techniques to solve problems and answer questions.			Formative Assessments: • Objective quizzes • Written assignments • Use rubrics to assess process, not just product • Peer evaluations by rubric Summative Assessments: • Performance Assessments • Written tests
B.	Apply appropriate instruments and apparatus to examine a variety of objects and processes.			
C.	Apply basic computer operations and concepts.			
D.	Utilize computer software to solve specific problems.			

3.8.10 Science, Technology and Human Endeavors

	Performance Indicator	1	2	Assessment
A.	Analyze the relationship between societal demands and scientific and technological enterprises.			Formative Assessments: • Objective quizzes • Written assignments • Use rubrics to assess process, not just product • Peer evaluations by rubric Summative Assessments: • Performance Assessments • Written tests
B.	Analyze how human ingenuity and technological resources satisfy specific human needs and improve the quality of life.			
C.	Evaluate possibilities consequences and impacts of scientific and technological solutions.			

ASSESSMENTS

PSSA Assessment Anchors Addressed: The teacher must be knowledgeable of the PDE Assessment Anchors and/or Eligible Content and incorporate them into this planned instruction. Current assessment anchors can be found at pde@state.pa.us.

Formative Assessments: The teacher will develop and use standards-based assessments throughout the course.

Portfolio Assessment: ____ Yes __X__ No

District-wide Final Examination Required: __X__ Yes ____ No

Course Challenge Assessment: None

REQUIRED COURSE SEQUENCE AND TIMELINE

Content Sequence	Dates
Creating Technology (Introduction)	5 Days
Enterprise Inputs (including safety)	20 Days
Organizing an Enterprise	3-5 Days
Financing an Enterprise	3-5 Days
Design Engineering	5-7 Days
Production Engineering	5 Days
Producing Products	30+ Days
Marketing Products	5 Days
Financial Process	2-4 Days
Enterprise Outputs and Impacts	2-4 Days
Future Developments	2-4 Days

WRITING TEAM: Arthur Anderson, Elizabeth Anderson, Patrick Cronmiller, David Krack, Andrew Perlstein, John Victor

WCSD STUDENT DATA SYSTEM INFORMATION

1. Is there a required final examination? __X__ Yes ____ No
2. Does this course issue a mark/grade for the report card?
   _X_ Yes____ No
3. Does this course issue a Pass/Fail mark? ____ Yes __X_ No
4. Is the course mark/grade part of the GPA calculation?
   _X__ Yes __ __ No
5. Is the course eligible for Honor Roll calculation? _X_ Yes ____ No
6. What is the academic weight of the course?
   ____ No weight/Non credit __X_ Standard weight
   ____ Enhanced weight (Describe)_____