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ABSTRACT

The paper describes a curriculum model developed for gifted and talented students in an integrated middle school program, as a cooperative effort between the College of Education at the University of Houston and a Houston middle school. The program includes identification procedures, curriculum practices, and evaluation techniques. The curriculum is intended to be both differentiated and interdisciplinary. The curriculum consists of subject matter in eight areas: math, science, social studies, language arts, music, art, computer technology, and Spanish. Teachers become teachers/advisors in the program and assist students in individual and group activities according to student interest and subject area proficiency. Results of the initial 5-year pilot phase and a refined pilot phase indicated that students developed independent study skills and decision-making strategies. Teaching teams developed 3-week study guides for each subject area and for interdisciplinary areas. These brief guides identify topics, subtopics, essential curriculum elements, a sel'tion of activities, an evaluation process, and suggested references Seven study guides are attached. (DB)

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Curriculum Development for Gifted and Talented Middle School Students

By

Theresa M. Monaco PhD. and Jane Goodner

Developing an effective project to meet the unique needs of middle school gifted and talented students requires ingenuity, and is essential in today's society (W. D. H. Georgiades, Dean, College of Education, University of Houston, personal communication, June 12, 1989).

Abstract

The College of Education at the University of Houston in cooperation with the Pines School developed a Vanguard curriculum model with an associated acronym: Structured Curriculum for Individualization in the Middle School (SCIMS). The initial curriculum pilot program was designed for both the regular and gifted middle school age (11-14 years old) students. was further refined to be used with identified gifted students in integrated school program. In the Fall of 1989, collaborative action with Houston Independent School District modified and implemented this new curricular model for middle school classes in its program for gifted and talented students.

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The Vanguard program includes identification procedures, curriculum practices, and evaluation techniques. This student-oriented curriculum is differentiated; therefore, it interdisciplinary connections. The program is designed to help all middle school students develop academic, as well as, social, and emotional skills. Teachers become teacher/advisors in the program and assist students in individual and group activities according to student interest and subject area proficiency. Results of the initial pilot phase and the refined pilot show that students developed independent study skills as they develop decision-making strategies which help their own educational goals, and career aspirations.

Curriculum Pilot

The Pines School in collaboration with the University of Houston Center for Gifted and Talented Education developed, and piloted the SCIMS program over a five year period. The SCIMS curriculum consists of subject matter content in eight areas of the curriculum. These areas are math, science, social studies, language arts, music, art, computer technology, and spanish. Students who participated in the pilot program completed the course study guides during the school year under the supervision of classroom teachers-advisors. During the summers the students, teachers, professors, and graduate students met at the Center for Gifted and Talented Education at the University of Houston to



strengthen the curriculum by making changes that would enhance the program. The students were very specific in their assessment of the program. During this evaluation process deletions and/or additions were made to the study guides. Activities that the students found "boring" or "tedious" were deleted. For example, the students voted to eliminate the activity on "raising a Bonsal tree" because of the relevancy and the time required to complete this activity. The students made many valuable additions to the study guides. These additions included activities that were more to their liking and which also met the objectives of the class. The program as conceptualized by the Center's master teachers and strengthened by these same teachers and their students resulted in the curriculum pilot program (SCIMS).

During the pilot phase of the curriculum development it was noted that teachers, students, and administrators appreciated the simplicity of the format. The process provides a maximum amount of student participation, individualization, and achievement. The curriculum allows for self-pacing (time, learning-rate, and materials) through selected learning activities as basic skills are reinforced.

The SCIMS program grew out of the beliefs and ingenuity of master teachers from the Greater Houston area. The master teachers believe that each middle school student who completes this program will be able to demonstrate observable growth at each grade level in the following areas of personal, academic, social, and emotional maturity:



- 1) Development of a positive self-concept.
- 2) Appreciation of mental and physical health.
- 3) Ability to function independently and collaboratively.
- 4) Proficiency in reading, reasoning, and communication.
- 5) Ability to think creatively.
- 6) Ability to think critically.
- 7) Ability to solve problems affectively.
- 8) Ability to critically solve problems.
- 9) Enjoyment of living and learning.
- 10) Development of a global perspective on issues.
- 11) Development of a set of values congruent with community life.
- 12) Ability to be productive in a pluralistic society.

The nature of gifted middle school students, their learning styles, and appropriate curricular practices define this student-oriented, teacher/advisor model for learning. These basic beliefs were the basis for developing the content and format of the SCIMS curriculum. Thus, these beliefs about students, their aspirations and goals provide master teachers with the vision that makes pragmatic application on a day-to-day basis an enjoyable reality.

The Vanguard Program

The design of the curriculum and its implementation strategies were based on the recommendations made by leaders in the field of gifted education (Maker, 1982: Van Tassel Baska, 1988). The design



consisted of three components: identification, curriculum, and evaluation. All three of these components are crucial to the overall success of the curriculum. (See Figure 1).

INSERT FIGURE 1 HERE

Identification

Identification consists of two phases: 1) screening, and 2) selection. The middle schools in the Houston Independent School District participate in the identification process for inclusion in this program. All potentially gifted students nominated by parents, teachers, or mentors applied for the Vanguard program. This process ensured equal access to the nominated students during the initial screening phase of the identification process. telephone conference (personal communication, June 30, 1989) Betty Herbert (Houston ISD), Paul Slocumb (Lamar ISD), Robert Seney (Spring Branch ISD), Pegcy McWorter (Galena Park ISD), and Barbara Rives (Lamar University) agreed that the identification criteria should include representative students from each of our multiethnic school communities. To ensure selection of these students, students were asked to bring a portfolio of any products or information that they believed should be part of the selection process. As a result of this process, the identification process allowed for entry of students with diverse ethnic backgrounds and



diverse abilities

Each of the above school systems developed its own matrix to identify students. These matrices include an intelligence quotient (IQ), or an extrapolated IQ, an academic performance index (or indices), a parent, teacher, or self nomination index, and an index of creativity and/or a portfolio of exemplary products with mentor ratings.

The 1-2-3 Vanguard Approach

The Vanguard approach designed in collaboration with Houston ISD for use in the school district's gifted program complies with the Texas <u>Guidelines for Implementing Programs for Gifted Students</u> (1979). The curriculum focus ensures subject matter (discipline) integrity as well as an interdisciplinary approach across subjects lines.

The basic principles of learning taken from the literature (Van-Tassel Baska, 1988) and the guidelines from the Texas Education provided the foundation for a simplified approach to the 1-2-3 curriculum.

The curriculum was designed for each grade level (sixth, seventh, and eighth) and for each subject taught. The subjects are math, science, social studies, language arts as well as music and art.



Master teachers designed three week study guides to cover all the essential elements (basic skills) for the subjects they taught. In addition, they also designed interdisciplinary study guides to cover the gifted learning outcomes across at least three subject areas (disciplines). Both types of units, the single subject and interdisciplinary study guides were designed in a one-two-three format. The single subject unit format emphasis is described as follows for science (See Figure 2):

Science

- 1) Generalization-life has many forms.
- 2) Concept- life and forms.
- 3) Sub-subjects:
 - a) Life Science
 - b) Social Science

Product: Select one or more activities from the study guide or develop your own and identify a product with your teacher-advisor's help.

INSERT FIGURE 2 HERE



The format is also simplified for an interdisciplinary unit as follows in History, Mathematics, and Music (See figure 3):

1) One generalization.

Example: Life is basic to liberty.

2) Two concepts.

Example: Life and Liberty.

3) Three Subjects.

Example: History- trace the political upheavals that occurred throughout time due to a peoples need for freedom.

INSERT FIGURE 3 HERE

The interdisciplinary connection takes a one-two-three approach, simplified in the Vanguard curriculum for the teachers. Teachers relate two concepts common to two or more disciplines. Individual study guides encompassing higher level thinking skills, planning with a teacher/advisor, and researching are major components of the program. Individual movement through the program allows the learner to make raximum use of time and independence and to create his/her own learning activity. Through the development of self-discipline in this student-oriented environment, the student realizes their personal potential and function more effectively and harmoniously in society.



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The Vanguard Format

The format of the Vanguard curriculum consists of a one page study guide with an eye-catching title, a topic, a subtopic, essential curriculum elements, a selection of activities based on Bloom's <u>Hierarchy of Critical Analysis</u> (Bloom, 1956) and an evaluation process. The study guide also includes a list of possible references that the student may find helpful. Students use a variety of materials to gain concept mastery. These include encyclopedias, special books in the classroom, school and local libraries, magazines, and 1-800 numbers to call experts all over the United States. Figure 4 outlines the curriculum components.

INSERT FIGURE 4 HERE

Curriculum Features

One unique feature of the curriculum is that it extends the essential elements mandated by the State of Texas, covering the essential elements of each discipline (subject). Further, The curriculum relies upon specific outcomes that teachers of gifted students believed were critical to the curriculum for the gifted. Students need not spend time on material that they already have learned. Once they demonstrate mastery, students move on to the next topic. While teachers of gifted students are not primarily responsible for these basic skills, most teachers had a sense of



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security in knowing that students had mastered the contents at grade level and were in an accelerated mode. By an assessment process, they "bought" extra time to be spent on gifted objectives.

A team of three teachers for each subject area examined the subject content to ensure that students achieve concept mastery within a choice of activities. After the initial implementation phase is concluded, only those activities that ensured concept mastery and student enjoyment remained in the study guides. Students may prefer to work in small groups for some topics, in large groups for other topics (seminars, lectures), or work alone on self-designed projects. Participants in the program receive a description of the format as well as a teacher guide and a student guide to ensure knowledge of the project and its components.

The Role of the Teacher/Advisor

Subject area instruction includes sharing in teams of teachers. Teachers in a particular subject area are responsible for brief motivational presentations to groups of students. In these sessions teachers provide information, circulate supplemental written materials, or make oral assignments as needed. Individual teachers may schedule meetings with small groups of students for seminars in particular subject courses. Scheduling is flexible and the majority of teacher time is spent advising students on selected activities and as a subject area resource person. The teacher spends less time on direct instruction and becomes a facilitator



of learning by assisting, monitoring, and evaluating the student's progress. As a facilitator of knowledge, the teacher/advisor assists students in both daily and long range time management. In this role, if the student identifies an alternate activity which will meet the curriculum objectives the teacher-advisor helps students obtain resources to investigate the individual interests.

The Role of the Student

Students use existing knowledge and methodology to become a firsthand inquirer and producer of new ideas and products. study guide requires students to complete a product of excellence. Students are able to select from six alternatives, the activity that they choose to complete for the particular study guide topic. Students may suggest an idea for an activity that is not included in the guide if they believe it would better demonstrate their understanding of the topic. Students will work at their own pace and at different levels of difficulty as they progress from one subject to another. Students talented in math, but not as strong in history will select a more challenging activity from the math study guide and a less involved one for history. Students follow their own interests and abilities and select topics that are consistent with their learning styles. This system allows students to be much more in charge of managing their time and enthusiastically selecting activities to be completed over a period of weeks, not just from day to day. Accountability covers a longer



period of time. The selection process allows students to learn to make wise choices of topics that reflect their abilities and level of interest.

Students will be able to see exactly how they earn their grades as they become part of the evaluation process. They will earn points for basic knowledge covered in the essential elements of the subject(s) based on text or tests constructed by the Project points are also awarded according to preestablished criteria developed by the teacher and students. Process points are awarded for quality under the pre-established criteria. The teacher and students arrive at a summary grade, which is the sum of the test, product, and process scores. based on the pre-established criteria is the option available to students to complete extra credit activities. The teacher/advisor will discuss the evaluation process in a conference with the student.

The Research Process

The study guides for the students include material on the research process. Students are guided through the research process in logical, well-defined steps:

- 1) Selection of a topic.
- 2) Defining the problem.
- 3) Development of an hypothesis.
- 4) Collection of information.



- 5) Analysis and evaluation of information collected.
- f) Statement of conclusions.

Each step is carefully explained in a format which the students find easy to use. A specific reference guide accompanies each unit study guide. The purpose of the detailed research process and reference guide is to enable the gifted student to work and discover independently.

Study Guide Activities

The purpose of the Vanguard curriculum is to provide interdisciplinary activities at the analysis and synthesis levels of thinking; thereby, making students actual investigators of real problems and related topics. Activities listed generally require analysis, synthesis, and evaluation. The student study guide has lines reserved for student options based on interest, level of ability, and/or preference. This allows the student to analyze the objectives and purpose of an activity to meet the objective. A teacher may permit a student to design an alternate activity to suit personal needs or interests (refer to Figures 2 and 3).

Evaluation

The evaluation process for each study guide provides for measurement of basic essential elements as well as "gifted learning"



outcomes". This process consists of five basic areas which must be contained in the student's final product. They are as follows: content, process, product, affective, and evaluation. Mastery of the above skills through activities that reinforce the basic skills, provide enrichment of skills as well as differentiate across subject areas are the basis of the curriculum.

The student's overall performance is determined by the study guide tests as well as the quality of his product. Further development of basic skills can be expanded laterally by the selection of another activity from each study guide.

Growth and development of life skills such as study habits, preparedness, thought process, creativity, and responsibility to self, class, or community are measured by the process points. Evaluation depends upon the observations of the teacher, who will determine the point value for the process. The five categories (content, process, product, affective, and evaluation) suggest ways to evaluate student products. Teachers may select the appropriate combination of evaluative criteria and place value on each. A teacher may weigh testing heavily or choose not to administer a test at all, if the student's product indicates achievement of basic and gifted learning outcomes.

Conclusion

The Vanguard program, as developed by the University of Houston Center for Gifted and Talented Education in collaboration



with master teachers in the Greater Houston area, will continue to evolve with each implementation. The most important feature of the program is its adaptability. School groups may modify the content or process of the curriculum guides to meet their needs. The Vanguard program has the capability of staying modern, workable, and effective.

The curriculum's greatest benefit to the students is the one-two-three Vanguard approach. It is with this approach that students learn the essentials such as math, science and language arts, while at the same time learning how these individual subjects combine to affect every day life. Therefore, the student is able to recognize the overall implications of a single topic.

The University of Houston Center for Gifted and Talented Education which provides this new curricular model, hopes to apply similar techniques in curricular development to piloting and implementing a high school program.



References

- Bloom, B.S (1956). <u>Taxonomy of Educational Objectives: The Classification of Educational Goals</u>. <u>Handbook I: Cognitive Domain</u>, New York, N.Y.: Longmans, Green and Co.
- Maker, C.J. (1982). <u>Curriculum Development for the Gifted</u>. Rockville, Maryland: Aspen Publications.
- Van Tassel-Baska, (1988). <u>Comprehensive Curriculum for Gifted Learners</u>. Boston: Allyn and Bacon, Inc.
- Strickland, (1989). <u>Developing Broad-Based Thematic</u>
 <u>Curriculum: Creating Connections</u>. Kilgore, Texas:



The Authors

Theresa Monaco, Ph.D, has served as a teacher trainer at the University of Missouri and at the University of Houston, 1969-1989. In addition to preparing teachers to teach gifted students since 1982, Theresa Monaco has spent a great amount of time working with handicapped students. She has a teaching experience foundation of twelve years in elementary and middle schools. has been the principle investigator of numerous United States Office of Education (USOE) awards in special education and has served on several committees (1980-1984) to evaluate proposals submitted for funding. In 1982 Theresa Monaco, at the request of the University of Houston College of Education submitted the proposal to the Texas Education for establing a major in Gifted and Talented Education. In addition to teacher training, direct teaching, and fund raising activities, Theresa Monaco, with graduate level support, maintains an active gifted center hot-line for teachers, students, and parents who have special concerns. Since 1982 she has written several published works on gifted education, including a Biographical Dictionary of Gifted Education, a current national directory of leaders in the field of gifted education, and twelve articles that have appeared in leading journals.

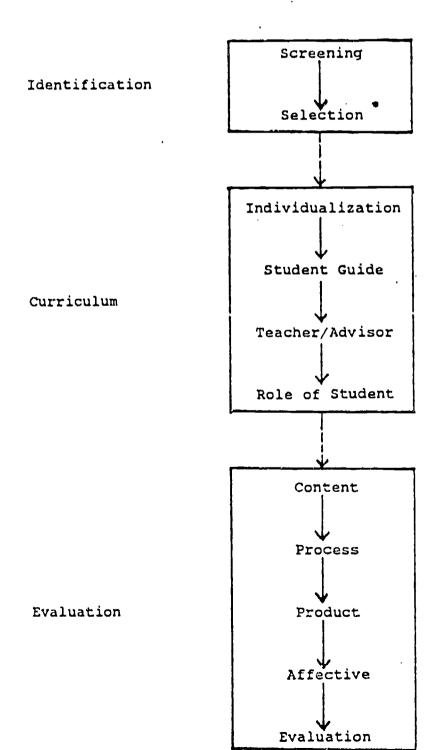
Jane E. Goodner has been teaching high school English for sixteen years and has taught at Ross S. Sterling High School, Goose Creek Consolidated Independent School District for the last ten years. She began teaching in the gifted English program last year.



She is currently working on a Masters of Education degree in Gifted and Talented Education at the University of Houston.



Figure 1 SCIMS: Identification, Curriculum, Evaluation





STUDY GUIDE

Beginning Date _____ Completion Date _____

SUBJECT: Life Science

STUDY GUIDE # 5

ISSUE, THEME, QUESTION

OBJECTIVES

Will the world survive another hundred years?

1. The student will investigate the environmental deterioration process and determine ways to prevent it.

ACTIVITIES (Choose ____activity(ies) from those listed below.)

- 1 Investigate a vacant lot around your house for types of life, pollution, etc. over a four-week period. Document your findings
- 2 Keep a scrapbook of articles relative to the environment
- 3 Invent and demonstrate a usable product made of recycled trash
- 4 Compare and contrast four types of water Invent a way to make plain water taste better. Demonstrate it in class.
- 5. Design a useful item that provides a service but doesn't product a pollutant
- 6. Develop a documentary relating to a controversial issue dealing with the environment
- 7 STUDENT OPTION

TEACHER'S COMMENTS	EVALUATION	N
	Test (s) Product(s) Process Summery	Pts Earned
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21

REFERENCE GUIDE

REFERENCE MATERIALS/IDEAS/RESOURCE	RESOURCES
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Make specific observations of a limited area and obtain data about the movement of life Particular advises a deed forms, collection of pollution, etc. (1) (1) (1)

Will the world survive another — I the stadent will investigate the environmental of any word in the set has not an engineer to

They are the the first

Newspapers and magazines make excellent resources.

Hopefully, the trash you use will be clean and not have an odor! Louis Louvy and a super commence were the contract of the

Try filtering, boiling, freezing, anything but adding flavor to it.

And the second of the second o

Remember, any fuel has a waste product when it is burned.

The trick is to design the experiment first

Mine stripping, acid rain, cutting the forests, and the ozone layer are a few suggestions



Name	Beginning Date	Completion Date
	VANGUARD INTERD	DISCIPLINARY STUDY GUIDE
UNIT TH	ОВ	of a society relative to all time and space. JECTIVES
	society, to reco	analyze how reform is relfected in a grize that reform is a constant and ss.
	History Topic: Movements Activities: 1. Compare/ contrast 3 reform movements to explain similarities in cause and differences in outcomes.	Math Topic: Statistics Activities: 1. Use a timeline to demonstrate the cycles of reform movements. 2. Use statistics to formulate a conclusion how a movement effected the population and the outcome of the movement.
To Ac De in a var mo	pict the transitions 1. What is	Reform? reform? res reform effect the world around you?
1	Music Topic: Reform expressed through music Activities: 1. Create a medley of music performed during reform movements. 2. Create a new style of music reform. 3. Create a commercial jingle focusing on a reform that you would like to see happen	Science Topic: Sequencing Activities: 1. Sequence reform movements in science with in the last 100 years. 2. Analyze and discuss moral issues that developed out of reform and scientific advancement. Language Arts Topic: Descriptive Writing Activities: 1. Compare/ Contrast different types of literature that demonstrates different periods of time in which different philosophies are reflected.
PRODUC	CT (student choice)	EVALUATION Pts. Earned
TEACH	ER'S COMMENTS	Process Summary

23

TOTAL ____

ERIC

Figure 3 (Back)

REFERENCE GUIDE

Reference Materials/ Ideas/ Resources

Reform is a result of the needs of a society relative to all time and space.

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ACTIVITIES

General

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World History text

Social Studies

Civil Rights
French Revolution
Bolshevik Revolution
American Revolution
Women's Rights

Math

League of Women Voters
Declaration of Independence
Magna Carta

Language Arts

Separate Peace Norton's Anthology of British Literature various prose writers

Fine Arts

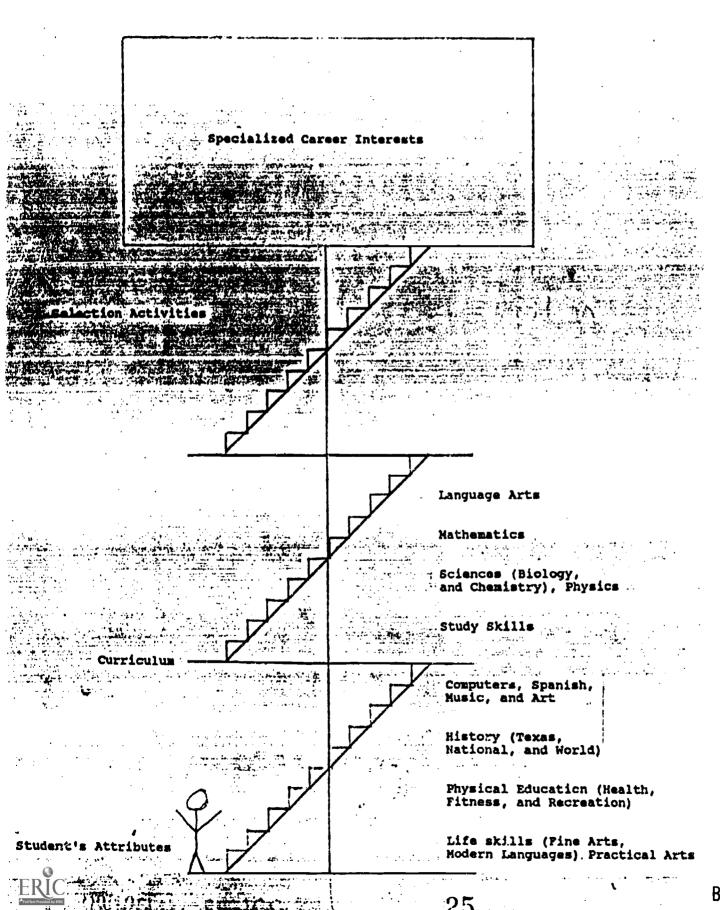
computer music

Product Suggestions: tape, picture, dance, commercial, paper, timeline, debate.

Written by: Ann Linsley-Kennedy, Virginia Levy, Barbara Hunt, Barbara Wolf



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Additional Study Guides



VANGUARD

STUDY GUIDE

Student Name	The state of the s

Beginning Date _____ Completion Date _____

SUBJECT: T

TEXAS HISTORY 7

STUDY GUIDE #5

ISSUE, THEME, QUESTION

"I find Common Sense is Working a powerful change in the minds of men."

OBJECTIVES

- 1. The student will test the assumption that the Texas Revolution was a triumph of freedom over tyranny.
- 2. The student will practice a variety of research and analytical skills necessary for historical investigation.

ACTIVITIES (Choose _____ activitivactivities from those listed below)

- 1. Produce a TV special entitled, "Did the United States provoke the Texas Revolution?"

 Interview President Jackson and President Scata Anna. Investigate the charges
 brought by Mexico that the United States caused this revolution. Present the interview
 orally or on video tape.
- 2. Create a monument to the Texas Revolution. Recommend a site, develop an architectural design, and design an inscription.
- 3. With another student, debate the first subject facing the General Consultation—Was Texas fighting for the Constitution of 1824 or complete independence.
- 4. STUDENT OPTION:

TEACHER'S CUMMENTS

EVALUATION

	Pts Earned
Test (s)	
Product(s)	
Process	
Summary	**************************************
TOTAL	



REFERENCE GUIDE

REFERENCE MATERIALS/IDEAS/RESOURCES:

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VANGUARD

STUDY GUIDE

Student Name

Beginning Date _____ Completion Date _____

SUL ECT: Language Arts 7

STUDY GUIDE #1

ISSUE, THEME, QUESTION

Origin and History of Words: Who started this Mess?

OBJECTIVES

- 1. The student will understand that language changes.
- 2. The student will recognize the relationship between English and other languages of the Indo-European family.
- 3. The student will identify the etymology of
- 4. The student will pursue independent and guided research.

ACTIVITIES (Choose _____ activity/activities from those listed below.)

- 1. Design a time line that illustrates the history and development of the English language.
- 2. Design a diagram showing the various ways words have come into the English language.
- 3. Devise a system that you would use to teach English to an extra-terrestrial. Present to the class.
- Compare and contrast English and one other language from the Indo-European family.
 Vrite a composition outlinging these similarities and differences.
- 5. STUDENT OPTION:

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TEACHER'S COMMENTS		EVALUATION	
			Pts Earned
	Test (s) Product(s)		
	Process		
	Summery		
O*	96	TOTAL	

29

REFERENCE GUIDE

REFERENCE MATERIALS/IDEAS/RESOURCES:

sources: Encyclopedi	ia, English (Unit 19, p. 416)	Maria Cally Maria a Golda
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VANGUARD	Student Name	
STUDY GUIDE	Beginning Date Completion	Date
SUBJECT: Mathematics 7	STUDY GUIDES # 5	
ISSUE, THEME, QUESTION	OBJECTIVES	
What are my chances?	 The student will collect, organize, and p data in table and graph form. The student will draw inferences and p from data. The student will interpret and criticize world statistics. The student will investigate the numbe patterns in Pascal's Triangle. 	redict real-
ACTIVITIES (Choose	activity(ies) from those listed below.)	
same time. Predict what will h	uld result from flipping five different coins appen if you toss these coins fifty times. Receive the results with your prediction.	at the cord the
2. How's your pop? Conduct a tas Survey 100 people. Make pred Graph results and write a sum	te test comparing 2 or more brands of soda pictions and draw inferences according to you mary paper.	op. ur data.
triangle. List possible outcome	lustrate and describe the patterns you find in es of tossing 1 coin, 2 coins, 3 coins, etc. up to nd write a summary. Your outcomes should b	6 COIMS.
 Design a probability experime replacement. Compare the res 	nt based on drawing randomlywith and wi sults. Illustrate and write a summary paper.	thout
Create a game based on probab difficulty. Create game rules t a computer.	ility and skill. Include choices for multiple hat allow both skill and luck into play. You	levels of may use
6. STUDENT OPTION:		
TEACHER'S COMMENTS	EVALUATION	
	Test (s)	Pts Earned
	Product(s)	
	Summery	
	TOTAL	

REFERENCE GUIDE

REFERENCE MATERIALS/IDEAS/RESOURCES:

	Coins, knowledge of probability ्राज्यकान् bins ,व्यां तन्त्रपाठ उन्होंना नेतन प्रत्येक्षण एड हैं है । अस्ति प्रत्येक्षण स्थान स्थान क्षिणी
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	Soda pop, paper cups, materials for visual display
	and the second of the estimate of the control of the second of the secon
	Knowledge of Pascal's Triangle (textbook, library).
	en e
	Marbles, colored chips, playing eards, or other materials.
	Poster board, blank game board, or other materials. Spinners and/or dice
	Poster board, blank game board, or other materials. Spinners and or dies



Namè	Beginning Date	Completion Date	
)	VANGUARD IN	TERDISCIPL!NARY ST	TUDY GUIDE
UNIT THEM	1. The stud	Reality is to civilization are based on a compare and contrast failent will differentiate between failed.	combination of Fantasy and Reality. antasy and reality. ntasy and reality.
		ACTIVITIES	
Activities: with curre 2. Resear	egends through time 1. Research the legends of Count evidence to determine if the right a legend from ancient times a factual and report on the find	se are valid. Is that has recently been	Fine Arts Topic: Graphic Illustration Activities: 1. Create a water color drawing protraying actions of legendary vampires. 2. Create a drawing of one of your fantasies that you would like to become reality.
Topic: Activities survey a determine believe vampires showing between the reportant and an action become	Statistics es: 1. Conduct a among adults to ne how many people in the existence of es. 2. Develop a chart of the relationship in geographic locality and orted incidences of es. elop a survey to show any adults believe in es and whether they can a reality. If (student choice)	WHAT IS Fantasy? 1. What is fantasy? 2. How does the relative effect our lives reality eff	Language Arts Topic: Creative writing Activities:1. Watch vampire movies and compare the similarities and differences in vampire traits as depicted in the films. 2. Write a story
1			EVALUATION Pts. Earned Test
TEACHE	R'S COMMENTS		Product Process Summary
EDIC.		33	TOTAL



REFERENCE GUIDE

Reference Materials/ Ideas/ Resources

The greatest contributions to civilization are based on a combination of fantasy and reality.

General

Myths of the Greeks and Romans Legends of Medieval Europe Articles on legendary people

History

Legends of Count Dracula by Brams Stoker, 1897.

King Arthur and the Knights of the Round Table

The Tales of Robin Hood

Legends of the Norsemen

Math

Statistical texts/Books/Articles- How to information alamanacs

<u>Science</u>

Medical references on Mental Illness

Language Arts

Movie: Count Dracula with Bela Lugosi Movies about legendary vampires

Product Suggestions: Pictures, Reports, Surveys, Charts, Graphs, Story

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