

ACTIVITIES FOR  
GIFTED LEARNERS

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An Action Learning Project  
Presented to the Graduate Faculty  
of the College of Education  
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In Partial Fullfillment  
of the Requirements for the Degree  
Master of Education-Professional Development

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by  
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This action learning activity contains an overview of the history of giftedness from the mid 19th century to the present which outlines the achievements of gifted students. Since many districts have no gifted programs, teachers become responsible for challenging and guiding the gifted learner.

Activities for this project are based on a review of educational materials and on discussions with teachers and children. Selected activities require no additional materials to be purchased, allow students a choice of approaches, and to share his or her knowledge in areas that many children have an interest. The activities are for grades 4, 5 and 6 and cover science, social studies, language arts and the fine arts.

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## CHAPTER I

### INTRODUCTION

#### Statement of the Problem

In 1972 the United States Office of Education described gifted children as those who, by virtue of outstanding abilities, were capable of high performance. These were children who required differentiated educational programs and services beyond those normally required in regular school programs in order to realize their contributions to self and society (Marland, 1972).

Historically, giftedness had related mostly to the cognitive skills, such as verbal and reasoning abilities. Galton in 1869 defined giftedness in terms of a percentage. Those he considered geniuses were the top .025 % of society, those who were considered highly gifted were the top .2 % and those possessing talent as the top 2 % (Burt, 1975). This rather narrow scope has been broadened a great deal to include a much greater range of attributes. The Marland document expanded giftedness into a multidimensional framework including high performance in creative and productive thinking, leadership abilities, talent in the visual and performing arts and psychomotor ability in addition to general intellectual ability.

This document was met with studies, articles, books, and curricula including all phases of giftedness and creativity. One argument advanced for providing special learning appropriate for talented persons was that we will need their insights to help solve the problems society faces now and in the future (Perrone, 1981). Many schools have no workable programs for the gifted, due to funding problems concerned with training new teachers and retraining existing teachers. Becoming familiar with the wide variety of ways to identify those who are gifted and to find available space in overcrowded buildings may also present a problem for some schools.

#### Need For The Project

Teachers today must teach to students of varied backgrounds and abilities, trying to meet the needs of all of them. When a district has no gifted program it becomes the responsibility of the teacher to challenge and guide the gifted learner.

Once a child has been determined to be gifted, there are several alternatives that can be taken to enhance the child's education. Some of these include acceleration, enrichment, and exclusive groupings. When there is no gifted program available for the child, the individual teacher would most often rely on enrichment of content by having the child go into more depth on the studied course content,

or doing an individual project relevant to the child's interest. Because of the limited resources available to the individual teacher in terms of time, money and space, the purpose of this paper is to compile a collection of activities for a teacher to use with gifted learners as independent projects. These activities will be drawn from the areas of science, social studies, language arts, and the fine arts and will be appropriate for the upper elementary students (grades 4, 5, and 6).

Schools most successful in their response to demands for excellence and higher student achievement will be those whose educators focus on developing the potential for learning in all students, search continuously for special gifts in all children, and nurture gifted performance in students with high potential as learners (Whitmore, 1984). This approach requires a school to use the broader definition of determining the gifted child which includes creativity, the arts, and leadership ability. The activities included in this paper are intended to meet the needs of these diversely gifted children in the classroom.

#### Limititations

The existence of computers in most schools at all levels has enormous implications for all students, but especially for those who are gifted. Computer-assisted instruction would allow students to progress at their own rate and to pursue

areas wherein the teacher may not have the expertise to help them. Also learning the basics and how to write the programs themselves is an unlimited area the child may explore exercising his or her creative abilities.

Software is an area of tremendous growth with companies, groups, individuals and educators producing large quantities of programs. Some of these are highly acclaimed by educators and others have little or no value. Because of the large quantity of software, it would be very time consuming and expensive to preview a significant amount of this material. Another problem with including software in this paper is that a good program designed for one computer may not be compatible with other computers and schools vary in their choice of computers. For these reasons computer software will not be a consideration for any of the activities in this paper.

## CHAPTER II

### REVIEW OF THE LITERATURE

#### History of Education for the Gifted

Interest in giftedness can be traced as far back in history as Plato's The Republic with his plan for training and educating the more gifted children to carry on the highest functions of the state -- his "philosopher-kings" (Burt, 1975). However, it was Charles Darwin's publication of Origin of Species in 1859 which stimulated concern for educating the best students more effectively, and that concern caused others to become interested in the area.

Darwin's cousin, Sir Francis Galton, was a British scientist who did research in meteorology, heredity, and anthropology. Darwin's conclusions regarding natural selection and survival of the fittest led Galton to conduct research based on ideas for planned improvement of the human race by the selection of superior parents. He concluded in his book, Hereditary Genius, written in 1869, that intelligence was due to natural selection and heredity (Davis, 1985). Although Galton's methods had many flaws and he overlooked the importance of environment, wealth, opportunity and privilege, he did devise a sensory acuity test which was an effort to measure intelligence, and he

also brought attention to the issue of giftedness (Howley, 1986).

French psychologist, Alfred Binet, influenced by Galton's work, devised the first scale to measure intelligence. Working with Theodore Simon, he developed the Binet-Simon intelligence test in 1905 for the French government which had hired them to solve the problem of placing children in schools. Children had been placed in schools for the retarded because of possessing such traits as poor vision, hearing, or speech, or because they had poor social skills, such as timidity or shyness (Davis, 1985). Binet developed the term mental age, which related to the concept that a child may be measurably ahead, behind, or in line with his or her chronological age.

Lewis Terman, working at Stanford University, revised the Binet-Simon intelligence test in 1916 for its use in America and it became known as the Stanford-Binet Intelligence Scale. This test had its latest revision in 1960, new norms were published in 1972, and it remains an influential test today (Howley, 1986).

Terman was interested in gifted children and did one of the first and most extensive longitudinal studies in the United States. The Terman research, begun in 1921, followed the progress of 1500 children into their adulthood. The children in grades K-12 in California schools were identified as gifted if they had an I.Q. of 140 or above. Terman's findings pointed out that intellectually gifted

children were not weak, puny, unpopular, or disturbed as was the popular stereotype in the 1920's. Later testing of these same subjects showed increased or improved mental ability as they entered adulthood (Gallagher, 1975).

Sputnik I, the Russian earth satellite launched in 1957, also had a great impact in furthering education for the gifted. American education was carefully scrutinized and an awareness developed for the need to set higher scholastic standards with emphasis on the gifted and talented student (Davis, 1985).

From Sputnik in the 1950's until the 1970's there were few strides made in gifted education. In the 1970's, a congressional mandate called for a status report on the education of gifted and talented children. The Marland report made the following recommendations: more leadership at the state and the federal level; model and demonstration programs for the gifted; training fellowships and scholarships to prepare teachers; more research and development, especially in curriculum; and a major information exchange of materials and ideas (Marland, 1972). Since the publication of the Marland report, many advancements have been made in the area of gifted education.

#### Definition of Gifted

There are many definitions for being considered "gifted and talented". The definition a district or school uses

will determine who qualifies for the program and who does not; thus, it is an important consideration. S.P. Marland Jr. has developed a definition which has been adopted by the United States Office of Education and therefore is used by many school districts. According to Marland, gifted and talented children are those who by virtue of outstanding abilities, are capable of high performance. Such children, who would be identified by professionally qualified persons, would require differentiated educational programs and services beyond those normally provided by the regular school program in order to realize their contribution to self and society (1972).

Marland went on to state that children capable of high performance included those with demonstrated achievement and/or potential ability in any of the following areas:

1. general intellectual ability
2. specific academic aptitude
3. creative or productive thinking
4. leadership ability
5. visual and performing arts
6. psychomotor ability (1972)

Congress revised this list in 1978 but the only major change was the exclusion of psychomotor ability. The reason for this exclusion was that dancing and mime could be included with the performing arts (Davis, 1985). Athletics was seen as an area where an almost ideal gifted program

already existed in most schools because special teachers (coaches) are hired, expensive equipment and space are provided, training is partly individualized, the child is encouraged and rewarded for doing his or her best, and the students travel to other schools to compete with other talented individuals (Gourley, 1981).

Another very prominent definition of giftedness is that of Joseph Renzulli. Renzulli felt a shortcoming of the United States Office of Education definition was that it ignored the motivation of the individual. His three ring model of giftedness shows the three traits most important in a gifted person are high creativity, high task commitment or motivation, and above average intellectual ability (Howley, 1986). Renzulli further emphasized the need for gifted children to interact with artists, musicians, writers, poets, doctors, etc. so they observe professionals in the real world. Such community leaders can serve as important role models for children (Krause, 1984).

A third view in defining the gifted child is that of Calvin Taylor. His point is that if the time is taken to look, almost every student is above average in some ability, skill, or knowledge area. He uses areas of academics, creativity, planning, communicating, forecasting and decision-making to assess giftedness and talents (Davis, 1985).

Although there are many more definitions of giftedness, the preceding show the wide variance in defining the term.

Complicating the problem still further is the gifted underachiever; minority students, including economically disadvantaged students; physically disabled students; and those with learning disabilities. Such students also merit consideration. Each school district needs to have a carefully considered definition of giftedness as its first step in beginning a program for the gifted child (Gallagher, 1975).

#### Identifying the Gifted Child

There are many dimensions of talent and giftedness including creative skills, analytical ability, depth in one content area, breadth of a skill around many content areas, verbal, social, or mathematical exceptionalities, persistence, motivation, task commitment, and ability to integrate ideas (Perrone, 1981). The criteria used to place a child in a gifted program are varied.

Some districts set a minimum I.Q. and use a test score on the Stanford-Binet Intelligence Scale or the Wechsler Intelligence Scale for Children-Revised (WISC-R) as their sole criteria to determine giftedness (Clendening, 1983). Others take the top 3-5 % of the school population, and still other schools use a minimum I.Q. of 125-135 as a first level screening. All include testing as one criteria in identification, but most districts use other means as well (Perrone, 1981).

Parent or teacher recommendations are often the first

step in identifying the gifted. The group achievement testing most districts use can be another indication. If these are scored in the upper stanines and the teachers have observed gifted characteristics, the next step may be the individual test. The Stanford-Binet Intelligence Scale or the WISC-R is frequently used. There are also creativity tests, peer nomination, self nomination, special teacher nominations (e.g. art teachers, music teachers, etc.), and the product evaluations. Product evaluations look at the quality of work the child has done in different areas such as creative writing, poetry, science projects, dramatics, photography, any unusual hobbies and so on (Davis, 1985).

In some states creativity tests are listed among the acceptable criteria for identifying the gifted student, some states don't mention them at all and others explicitly state that creativity tests are unacceptable criteria (Torrance, 1984). The Torrance Tests of Creative Thinking containing both verbal and figural forms, are a commonly used test of creativity. Torrance is concerned that students who are above average intelligence and below the schools cut-off range are being overlooked for the gifted programs. He would like those children to be given his creativity test and be included in the gifted program if they do well on it. His longitudinal studies have shown that the highly creative group excelled over the highly intelligent group and equaled those who were both highly intelligent and

creative by the number of degrees, honors, and academic attainments (Torrance, 1984).

Clasen (1980) also adds that the ability to read above grade level, putting students into a challenging learning situation where a shy or timid child may be caught off guard and reveal his or her potential, and noting the non conformer -- that student who may be bored and resistant to the normal routine of the school day -- should also be areas to consider in identifying the gifted.

There are numerous rating scales and models that can be used to identify the gifted. A district needs to define gifted and then employ the screening techniques that validate its chosen characteristics.

#### Meeting the Needs of the Gifted

Once gifted children are identified, a program must be implemented to serve their needs. One common way to meet the child's needs is to use acceleration, which Davis (1985) describes as any strategy that results in advanced placement or credit. Acceleration strategies could include entering kindergarten or first grade early, skipping a grade, entering junior or senior high early, receiving credit for a course by taking an exam and testing out, taking a college course while still in high school, or entering college early. There are conflicting views for using acceleration with the younger child. The main concern is that social problems

may arise if a child is in a class with older children. The use of acceleration is not to be taken lightly and must be a decision based on many aspects, with the child and his or her personality being carefully considered.

An important study concerning this issue was conducted by the Sid Richardson Foundation in Fort Worth, Texas in 1985. Over 1,172 school districts and 400 schools took part in this study over a four year period to evaluate programs for the gifted. One of the major findings of this study was that the most important concept for educators to be aware of in designing programs for the gifted learners was to move students ahead based upon their mastery of the subject or skill. The study also recommended flexible pacing rather than acceleration to the exclusion of enrichment. They stressed that the goal should be to see that no individual talent withers because of lack of opportunity. The need for a strong administration, counselors, staff development, and teacher support were important considerations (Cox, 1985).

Another approach for meeting the needs of the gifted child is enrichment, which Davis (1985) says can be thought of as a strategy that supplements or goes beyond grade-level work but does not result in advanced placement. This is the most prevalent way of teaching the gifted learner. Activities can be inserted at any point in the curriculum, at any grade level, and with individuals or with small

groups. Some examples of enrichment are: weekend classes, summer programs, independent study and research projects, activity clubs, honor programs, learning centers, field trips, mentorships, special classes or a pull out program where gifted students spend a specified amount of time with a special teacher (Clendening, 1983).

Olympics of the Mind is an example of a nationally organized enrichment program that was started in Glassboro, New Jersey in 1978 with about 300 students. It has now grown to over 25,000 students and includes participants from half of the states in the United States and some Canadian students. Ted Gourley and Sam Micklus, the originators of Olympics of the Mind, wanted to create a nonathletic, highly visible, enthusiastically supported program based on a varsity sports model. Children are classed in three age groups: K-5, 6-8, and 9-12. Children are encouraged to try out at the first level of competition but eventually a team of not more than 20 players is selected based upon their success and skill in a variety of increasingly complex problem solving activities. The teams generated by this process compete against each other in regional, state, and ultimately the world finals (Gourley, 1981).

A final point concerning attempts to meet the needs of the gifted child is the important one of counseling. Being gifted can put high expectations on a child which at times can be very difficult for him or her to meet. Socially the

gifted child may be distant from their peers because of their maturity and their large vocabularies. Career choices may also be more difficult for the child because of his or her multiple talents. For all of these reasons there is a great need for guidance to help direct the child through the already difficult task of growing up (Clasen, 1980, Cox, 1985, Vantassel-Baska, 1984, Whitmore, 1984).

Several experts in this area have emphasized the importance of effective counseling for gifted children. Torrance (1962) gives the role of the guidance counselor as:

1. providing a refuge or relationship where the child feels safe.
2. being his or her sponsor by encouraging and supporting the child.
3. helping the child understand his or her divergence.
4. letting the child communicate his or her ideas.
5. helping to see the child's creative talent is recognized.
6. helping parents and peers to understand the child.

Krause (1984) said that the most valid measure of the success of a gifted program is the students' development of a positive self concept, their actualization of potential, and their contribution to society.

### Summary

Giftedness has received attention all through history but only since the middle of the 19th century have efforts

been made to define, identify, and provide special educational opportunities for the gifted child. Galton, Binet, and Terman have made important contributions in this area and the launching of Sputnik also had an impact on the nature of gifted education on the United States today. The Marland definition of giftedness broadened the framework to include more than general intellectual ability and since the report in the 1970's there has been much done in the field of giftedness.

Many criteria exist which can be used to identify a child as gifted, but the first step in establishing a program for the gifted is to have a definition of giftedness. Once a child is identified as being gifted, there are numerous ways to educate the child. Two of the most popular are enrichment and acceleration. An effective program for the gifted needs a strong commitment from administration and well trained teachers and counselors to help the child with the difficult task of growing up with high expectations.

## CHAPTER III

### METHODS

#### Procedure

The author talked with teachers, children and reviewed many books on activities for children. Some of the activities have been taken virtually unchanged from a single source; some are original, based on discussions with educators, but most of the activities are combinations of ideas from different sources.

None of the individual activities includes objectives; however, there are some overall objectives for the gifted students that pertain to all activities. They are: to engage the students in meaningful learning situations in order to broaden their environment; to challenge their strengths; to respond to their interests; to allow the students varied methods of self expression; to involve the cognitive and affective domains; and to give students the freedom and responsibility to manage their own time. There are also some objectives in the appendixes for each of the content areas.

The organization of the categories was based on the major disciplines of academic work: science, social studies, language arts and the fine arts. Mathematics was excluded

because of the scarcity of activities available and because the author felt inadequate to judge the quality of the ones that were available.

The selected activities are appropriate for grades 4, 5 and 6, but no grade differentiation was included on the individual activities. Child interest and motivation may make one fourth grader ready for an activity for which a sixth grader has little interest or readiness. Also a fourth grader may not go into as much depth as an older child but would still gain in knowledge and skills. Many of the activities would be suitable for an entire class (for example, the trip to the cemetery) but perhaps the gifted student could do some of the research on the meanings of the symbols and the terminology prior to the visit. By sharing with the class, the child would be preparing the class for a meaningful experience. After the trip, the gifted child could go into more depth on some area, for example, writing epitaphs.

The activities chosen for inclusion in this paper were based upon one or more of the following criteria:

1. activities that do not require the purchasing of any additional classroom materials.
2. activities that would allow the student a choice of approaches.
3. activities that children would genuinely enjoy doing.
4. activities that would allow the student the opportunity to share his or her knowledge with others.

### Rationale for Criteria

The first criterion is based upon the funding problems that confront schools. The second criterion was selected because children have various learning styles which are best addressed by diverse activities. For example, the "Plant Family" is one activity that would allow a choice of approach. The student could go into classifications, grow some plants and compare them under varied growing conditions, interview a botanist or farmer about problems they have, compare and contrast a plant to a human, or a combination of the activities. The student is gaining knowledge about plants in each circumstance, but has the freedom to choose how.

The third criterion is, perhaps, the most obvious. All learning can be fun, but especially so when the activity involves something that children really enjoy or are curious about. Many of the activities such as the ones related to ESP, superstitions, and dinosaurs have the child learning important library skills while researching an enjoyable topic.

The fourth criterion was based on the belief that a child is never too young to appreciate the importance of helping others. The activity entitled "Batman Books" is one where the older child can help a struggling beginning reader in the first grade. Also many of the other activities can be shared with the class so that all may benefit.

The author also feels that the teacher should encourage but not force the child to share his or her work through

bulletin boards, diorama's, work sheets (in the case of crosswords, word finds, etc.) or oral reports. Demanding that a child share all that he or she does may discourage some from doing. It is hoped that the activities are fun, rewarding and that the child will want to share his or her findings.

## CHAPTER IV

### CONCLUSIONS AND RECOMMENDATIONS

As a result of reviewing the literature, talking to teachers and doing the projects, the author has come to four conclusions which will be discussed. In addition to these conclusions, several recommendations will be suggested for effective implementation of the activities.

#### Conclusions

The first conclusion involves the importance of having everyone involved from the very beginning when designing a gifted program. Teachers in schools with very successful programs attributed their success to cooperation between the teachers and administrators and to a well thought out program. The literature supports this idea that it is imperative to have a strong foundation for the gifted program. Teachers, administrators and counselors all need to be actively involved in all phases of initiating the gifted program.

Some teachers had taught in schools where there was a great deal of friction because of the way children were identified as gifted. They felt children who weren't performing well in class, but were identified as gifted were rewarded by being allowed to participate in a "pull-

out" program. This led to further problems in the regular classroom and eventually the program was discontinued.

By using this example, the author does not mean to suggest that a "pull-out" program can't be successful, but it needs the complete dedication of all involved and excellent coordination. In extreme cases where a child is so advanced that acceleration would be necessary to keep him or her challenged, a "pull-out" program may be necessary; nevertheless, such programs can still result in some friction between teachers and jealousy among children.

Enrichment, which can take many forms, seems to be the way to reach a large number of children with the greatest ease, offering the child a challenging learning situation while remaining with his or her chronological peers. Activities can be tailored to a child's particular interests. Teachers also felt that the curriculum and community organizations provided opportunities for children to excel and receive recognition in the form of school or local contests, spelling bees, conservation speeches and so forth.

Finally, the author agrees with the philosophy of Calvin Taylor that every student has an above average ability, skill, or knowledge area if the time is taken to look for it. By having a wide variety of activities that appeal to the child, you may help the child attain his or her potential. The goal of teaching should be to reach every child and the author feels that enrichment activities

can play an important part in attaining that goal, especially for the gifted child.

### Recommendations

Although the activities are divided into categories, the author's intention was not to have a child working on a science project only while in science class, but rather to provide a wide variety of activities to appeal to many interests. When a child begins working independently on these projects, it may be beneficial for the teacher to provide some guidance until the student begins to acquire the skills that the teacher feels the child needs to develop. For example, doing a research project on a topic of interest to the child may make learning library skills more enjoyable.

One way to implement the activities is the use of a teacher-student contract. This could be an oral or written agreement, but there should be a specific description of what the student will do, what materials and methods that he or she intends to use, a completion date, and a means for both student and teacher to evaluate the product. The teacher may also wish to have a form for the student to rate the activity and tell how he or she feels it could be improved.

A teacher-student contract, however, is not necessary to implement these activities successfully. This author supports a less structured approach involving an oral agreement between the student and teacher with opportunities for the

student to devise his or her own procedures and with no definite completion date, except in the case of a field trip where the student is doing some preliminary investigations to share with the class prior to the experience. Although the time limit for completing the activity would be flexible, the teacher should encourage the completion of an enrichment activity which has been initiated by a gifted child.

Although these activities are for individual students, the author feels they would be enhanced if two students would choose to work together on a project, each taking a different perspective and then comparing the results. A teacher can facilitate the selection of an activity by letting the students know what the next unit will cover. This would then give the student a chance to begin the related activity early enough to have it ready to share with the class at the appropriate time.

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Appendix A

FINE ARTS

### FINE ARTS OBJECTIVES

The fine arts activities will give the gifted student a chance to build an aesthetic awareness while growing in fluency, flexibility and originality of self expression.

The gifted student will learn more about his or her potential to develop particular skills (e.g. calligraphy).

The gifted student will be given the opportunity to participate in a variety of enjoyable activities any one of which may turn into a life long pastime and which might serve as a good emotional outlet.

## MANDALAS

### Information

Mandala is a Hindu word that means "magic circle". The mandala is one big circle with many other small ones inside it that all share the same center. The circles inside the big circle are called concentric circles. The designs that are in the circles are usually repeated in different sections of the circles. Many cultures use the mandala, some of the Navajo sand paintings are a style of mandala, as are some used in Oriental countries that were for focusing the mind on meditation. What more can you find out about the mandala?

### Activity

Make a mandalas by using a compass to make the circles, white paper, pencil and markers or crayons. First draw the four or five circles with the compass, one inside the other. Then make lines through the center of the circle to form four parts. Then draw a picture or shape in one part and repeat it on the opposite side. Continue adding shapes until the mandala is finished and then add color. You can leave some areas white also.

CRAYON FUNActivity A

Transfer a design by first folding a piece of paper in half. Open it and color the right half with bright crayon colors. Next fold the paper in half with the crayons on the inside. Bearing down hard with a pencil, draw a design on the top side of the folded paper. Then open it to see how the transfer worked.

Activity B

Scraper prints can be done by first coloring a sheet of paper with bright crayons, covering it completely. Then brush a coat of dark tempera paint over all the page (if you stroke the brush on a piece of soap as you go, the paint will stick). While the paint is wet, scrape away parts using a small tab of cardboard, a comb, or some other object. Try different motions while scrapping to give different effects.

Activity C

Sandpaper prints are fun to do by drawing a crayon picture on a piece of fine sandpaper. Then place a white piece of paper over the sand paper and iron it with a medium set iron until the design comes through onto the white paper. What does it look like?

Activity D

See if you can discover some other things to do with crayons to make a special effect.

DRAMAActivity A

Pick one of your favorite stories that has good dialogue and only a few characters, pick a story with only a few characters and write your own dialogue, or write your own story with dialogue. Then pick a way that you can act this story out for your class. You may want to choose a friend or two and each take a part, looking for some clothes to wear to help show your character. Or you may want to make some puppets and a small stage. By using a tape recorder, you could be more than one part yourself, or again ask a friend. What about looking for a few props, they could be things found in your room at school that you place to help you with the story.

Activity B

Can you decide how the character of the story would feel and give him or her actions that would go along with their personality? Really try to get inside the person who you are becoming and act like you think he or she would in the situation. Ask your teacher if you may perform for the class.

THUMB PRINTS

You can make a picture only using your thumb, fingers, or the side of your hand and a stamp pad or some rather thick poster paint. Your fingerprint is unique to only you and has a distinct pattern. The main patterns in your finger are the loop, the arch, and the whorl. If your paint is of the right consistency, you will be able to see these characteristics in your prints. Stamp pads come in different colors and make very nice prints, although it is difficult to wash the ink from your finger. Experiment with some animals, people, trees, etc. You may want to illustrate one of the stories you have written using fingerprints. Use a black marker to add some of the fine features to your creations. You may also want to look at Ed Emberley's book Great Thumbprint Drawing Book for some ideas. There are a few thumbprints below to get you started.



## MUSIC

Can you take your favorite short story and put it to music? By using a tape recorder and a record player, you can change the mood of the background music to fit the story. After you have it all recorded, try to read your story to the music to make sure it is saying what you want it to say. Maybe you can share your story with some of your younger friends or with your class.

## INSTRUMENTS

### Activity A

Do you know what instrument you would like to play when and if you join a band or an orchestra? Listen to some records that tell about the different instruments and then compare and make a list of the instruments in each family; such as the strings, the wood-winds, brass, and percussion. What are some of the qualities of each group? See if you can arrange to listen to an orchestra or a band concert to get to know the instrument that you have picked out.

### Activity B

Now, you are that instrument. What does it feel like to be played and make beautiful music, or is your music beautiful?

## 7-Fine Arts

MIMES THE WORDActivity A

What is miming? How do people communicate without the use of spoken language? What about the silent films? Have you ever seen one, if not try to find one to view. Find a friend and see if you can act out some of the everyday acts like brushing your teeth, walking your dog, eating dinner, some of the emotions-anger, fear, happiness, or excitement. Can your friend tell what you are doing?

Activity B

Communication by the speech and hearing impaired relies on many actions to be understandable. Pick a morning, with your teachers permission and go through it using no oral communication. Don't warn your friends that you are going to do this and no fair using written notes, only actions. Could you communicate well? Can you identify some of the problems of people who can't speak; feel some of their frustrations?

Activity C

You are visiting the planet Pluto and are one of the first explorers to go. You know from the original party that returned, that the language is not the same. What are problems you might face? The Plutonians don't eat by putting food into their mouths. Make a manual for others to follow as you discover more of their traits.

CALLIGRAPHYActivity A

What is it? Where did the word come from? Using a model to work with (Professor Reynold's book, or a book on calligraphy from the library or the art teacher) try the italic alphabet first as it is one of the easiest.

Activity B

Using a C-2 nib and holder (pen) and ink and lined paper, try forming the letters until you feel competent. Then compose a poem to write in calligraphy or make the letters for a poster, cover for a project, labels for a bulletin board, or make some cards.

## Montage

### Activity A

A montage is a composite picture made by blending together a number of different pictures. Why don't you collect magazine pictures that represent society today and put together a montage? You could show such things as the fashion, the foods we eat, the cars that are driven, titles of popular books or movies, etc.

### Activity B

Another way to try a montage would be to take something that you are studying about in science or social studies and put together a montage for the subject. It might be a nice way to pull everything together from a science unit and maybe you could share it by making it into a bulletin board.

### Activity C

What about a montage about you? Your likes and what you read, watch on television, your family members, your hobbies, etc.

### SHORT STORIES

Write and illustrate a short story about some local event, something that is happening in school, some of your friends, something that you are familiar with. Now write about a very imaginative place that no one has visited, or about an animal that no one has ever seen. Which of these two short stories was the easiest for you to write? Why do you think so? Which was the easiest for you to illustrate? Why?

### CLASS NEWSPAPER

Talk to some of your friends and discover what they consider to be the most important part of a newspaper. Is it the comics, the sport section, Dear Abby, etc. Decide on the columns that would be interesting to your class and then see if you can get some help and put together a paper. A student who is very good at drawing could work on some comics, a sports fan could cover the schools sports events, and maybe a suggestion or question box would be useful for ideas. After you compile your paper, talk to your teacher, maybe she can get it copied off so each student can have his own copy. If it's a success, how about trying to put out a monthly paper?

MONSTER MADNESSActivity A

Think of all the "monster words". Where did some of these words get their origin? How do you feel when you think of some of these words?

Activity B

Illustrate the scariest creature you can imagine. Use a different type of art media to show your monster - maybe build a diorama showing where your monster lives.

Activity C

Write down or draw a picture of 15 things that the monster may have in his refrigerator.

Activity D

Describe a typical day in the untypical life of the monster family.

Activity E

The family is deciding to sell their house. Write up a real estate ad for the house listing all of it's interesting points. Include a picture for the Sunday paper.

Activity F

What proves so fascinating about Dracula, the Abominable Snowman, Wonder Woman and Superman? Examine their history.

FUN WITH POETRYActivity A

You can have lots of fun with the different types of poetry. Couplets are one kind that you have heard since you were little, like April Showers Bring May Flowers. What about trying some couplets of your own?

Activity B

Another fun type of poetry is the limerick. Limericks are fun to make up and read because they are never serious or sad. To write a limerick, you will have to do a little research and find out about the anapest and how to use it in your poem. You will also want to know about the iambus. Have Fun!

Activity C

There are poetry forms that come from other countries that are fun to work with. What are the Haiku, the Tonka, and the Sijo? How many lines do they have and what do they represent? What about the Diamante and the Cinquain?

Activity D

Take your favorites and make a scrapbook with your poems or make an informative book that can be shared with your class on each type of poetry, where it came from, what it's meter is and some examples.

ROCKS AND ENVIRONMENTAL ARTActivity A

As you are out playing or walking by water of any kind where there may be some nice smooth rocks, keep your eyes open for these. Collect some of various sizes-some small enough to make a nice paperweight and others a little larger to be used for door stops. These can then be washed and designs painted on with tempera or acrylic paints. After the paint is completely dried they can be brushed with shellac or varnish and make a very nice gift.

Activity B

What are some other things you can make with what you find in the environment? What about drying some flowers or weeds to make into bouquets? Leaves can be used to make lovely stationary using some different techniques, such as splatter painting or paint the leaf and press it onto the stationary. What about using some nuts and pine cones to make Christmas ornaments? Think of all you can do with what nature has provided!

FRUIT AND VEGGIE PRINTS

Gather together all the fruits or vegetables that you can find and that your mom says are O.K. to use. You can use potatoes, carrots, mushrooms, peppers, beans, onions, and others. The stems and leaves can also be used. Cut your produce in 1/2 across or lengthwise. If you are stamping on paper, use a thick acrylic or tempera paint. If you are stamping on a T-shirt or a towel, there are special paints made for fabrics.

Decide on a design and dip your piece of fruit or veggie into the paint and then press it onto the paper where you want it to be. If there are fine details that you want to be able to see, you may have to wash the paint off and dry your stamper in between each use. You can make stationary and wrapping paper using this fun activity.

Appendix B

LANGUAGE ARTS

### LANGUAGE ARTS OBJECTIVES

By engaging in the composition activities, the gifted student will develop more sophisticated writing skills, increase his or her vocabulary, and become more adept at logical and sequential self-expression.

Many of the activities (e.g. Bias Re-Write, My Name and Me, Phobias, and the Journal) can help a gifted student become more aware of "self" and enhance his or her self-acceptance as well as the acceptance of others in society.

Some of the activities (e.g. Batman Books, Riddles, and Logos and Acronyms) involve the gifted student helping others, thus helping to prepare him or her to be a contributing member of society.

BATMAN BOOKSInformation

Zina Steinberg makes use of "Batman books" to help a reader that is having trouble. A book of this nature is one that is homemade, using a very limited vocabulary, it connects the words to the lives of the children, uses a hero of the times, and also uses the child's own name and those of his or her friends. The book is only three or four pages to begin with and as the child gains in confidence, they can become longer and eventually leave out both the hero and the child's name. By this time the child has gained in confidence and is ready to go into the basal reader.

Activity A

Have your teacher contact one of the first grade teachers and get the name of a child having some trouble and also the names of some of his or her friends. Get the vocabulary words that the class is working on. Write and illustrate a 3 or 4 page book, with a colorful cover for the child. Don't forget to consider who may be the heroes of a first grader-maybe even Snoopy? Keep in contact with the child's teacher so you know when to add more words to the Batman books.

CODES FOR COMMUNICATIONInformation

Our society has many uses of codes. There are color codes for traffic signs and many telephone wires are also color coded. Parking lot levels are coded by color, numbers, letters, or pictures. Mail orders give a number to each item so are coded as are telephone area codes. There are zip codes, Morse code and the Dewey Decimal which is a library media code. One of the newer codes is the Universal Product Code or the UPC.

Activity A

Do some research on one of these codes and find out its origins, who designed it, etc. How has the use of this code changed our lives? What are some other codes you can think of?

Activity B

In the year 2005, you are asked to help devise a coding system for all the merchandise being shipped in from Mars. Show us how you devised your code and what you have named it.

LOGOS AND ACRONYMSActivity A

Find out what logos are and who uses them. Make a list of some of the logos that you are familiar with and show a diagram of these. What about McDonalds, Pillsbury, CBS, Westinghouse, Atari, etc? Draw and identify the logos that you see on television or in magazines and the newspapers, on products that you use, or on signs. Make a logo for yourself. What about one for your school if they don't have one?

Activity B

Acronym is another term that refers to how some businesses, organizations, societies, etc. are identified. It is a word formed from the first letters or syllables of other words. For example AAA is the acronym for the American Automobile Association. How many acronyms can you find that you are familiar with, and some new ones that you may not have heard before? How about coming up with some original acronyms?

Activity C

Make up a sheet of some of the more common logos and acronyms and see how many your class can identify.

MY NAME AND MEActivity A

Look at the nursery rhyme Monday's child is fair of face. Tuesday's child is full of grace, etc. What child are you? Do you agree or disagree with the verse?

Activity B

The Chinese calendar names animals for the year on a 12 year cycle. What year are you? 1986 is the year of the Ox; 1985 is Rat; 1984 is Pig; 1983 is Dog; 1982 is Rooster; 1981 is Monkey; 1980 is Sheep; 1979 is Horse; 1978 is Snake; 1977 is Dragon; 1976 is Rabbit; and 1975 is the year of the Tiger. What characteristics are associated with your animal?

Activity C

How many ways can you write your name?

Morse Code-

Semaphore (nautical flag code)

Braille-

Sign language-

Phonetics-

Code you make up-

RATE ITActivity A

How are things rated? You have heard people say something is a ten, meaning it was good or something else was said to be excellent or fair. Make a rating scale out with the purpose of rating your school lunch. You may want to use a continuum from outstanding down to unsatisfactory, or you may want individual items scored such as taste, texture, nutrition, looks, overall, and leave a space for comments. Make your evaluation form appealing to look at, for instance put it in the form of a hot dog or some fruit.

Activity B

With your teacher's permission have your classmates rate the hot lunch program for a week and then you can tally up the results and show them how the meals scored over all.

Activity C

Based on your evaluation, try to put together a weeks worth of menus that the students would enjoy, but that also meet all the dietary requirements. Perhaps you could take your findings to the school's dietary supervisor.

PHOBIASActivity A

Phobia means to be frightened and is an exaggerated or illogical fear of a particular object or class of objects. Thus hydrophobia is a fear of water since hydro refers to water and phobia to fear of. See if you can find out what the following phobias are?

agoraphobia	xenophobia
claustrophobia	pathophobia
acrophobia	aichmophobia
erthrophobia	anthrophobia
mysophobia	ailurophobia
phobophobia	anglophobia
astraphobia	microphobia
zoophobia	myctophobia

Activity B

There are many more phobias you might want to add to the list. A phobia can be very debilitating to a person. Look at one particular phobia or coin your own and tell how it could control or change a person's life. What are some ways to overcome a phobia?

WORD HISTORIESActivity A

Did you ever wonder about the origin of some names? What about some of the common surnames, like Bell (an object), Good (a characteristic), Beaver (an animal), and Smith (an occupation)? Can you find the origin of your name -- its nationality, what it refers to, etc?

Activity B

What about slang -- where did some of those expressions begin? How long do slang words usually stay around? Ask your parents or grandparents or some older people about some of the slang they remember. Have you heard them or would you know what they were talking about? Have you ever heard Yiddish slang, Cockney slang, or local slang? What are these and find some examples?

Activity C

What is a dialect and a regional vocabulary difference? Have you heard people call a carbonated drink a soda, pop, or sodapop? What about the thing you fry eggs in called a skillet, frying pan, spider, or fry pan? Where do these dialects come from? Can you find a dialect atlas in your library or IMC? See if you can map some of the differences in word usage.

RIDDLESActivity A

Riddles are fun for people of all ages. How about starting a scrapbook with some that are original and some of the best that you have heard? Can you include some illustrations for some and maybe do some all in pictures?

Activity B

You could turn some of your best riddles into greeting cards and illustrate them and write a cheery note on the inside and take them to the hospital to give to some of the patients. You would be cheering them up and you would feel good too.

PROVERBSInformation

Proverbs are a short sentence that tells a bit of wisdom or some truth. Proverbs are usually something that people have been saying for a long time and are fairly simple and very picturesque so lend themselves very well to illustrating.

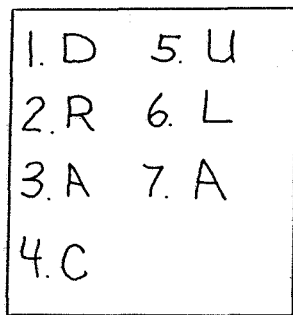
Activity A

Take some of your favorites and do them in pictures. Also make up some proverbs and maybe they will last the test of time as many of Ben Franklin's have.

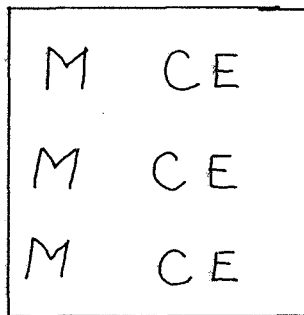
FUN WITH WORDS

Activity A

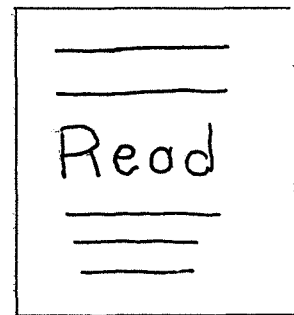
Try some visual puns -- what is a pun? Some examples are below. Make a sheet of them and try them out on your friends. If you have some really super ones, why not send them in to a magazine and see if they get published?



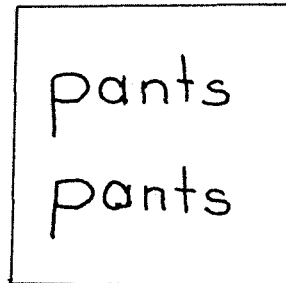
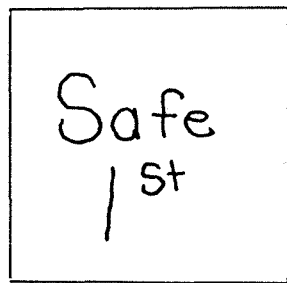
Count Dracula



3 blind mice

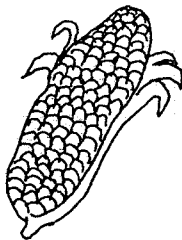


read between the lines



Activity B

Try some word pictures too! Can you make any of your vocabulary words into a picture?



+



= Cornbread



+



=

COLORActivity A

Our language has a great deal of association with particular colors. For example, a person may feel blue, you feel green with envy, yellow is associated with a coward, purple with passion and red with rage. Collect ideas where colors are associated with feelings, things, and expressions. How might these stereotypes have developed? Do they vary from culture to culture?

Activity B

Black and white are two colors that really abound with associations -- white being good and black being bad or evil. Make a list of these words, some examples of black are blackmail, blackout, blackmagic, and black-hearted. Is the connotation all bad for these expressions? Explore how some of these terms came into being. Do the terms "Black Power" and "Black is Beautiful" have any relation to the other black words you have listed? Think of some ways to change the black is evil stereotype.

JOURNAL

Take a new notebook or put together a book using some of the easier book binding techniques. Decorate the outside of your notebook in some fashion and from now on this is your journal. You may use it to write down all your personal thoughts, to write some poetry or short stories, feelings, anything that comes to mind. This is yours and does not have to be shared with anyone else. By recording things in your journal, you may come to know yourself better. Also, won't it be fun when you are 103 years old to look back on what you were doing and thinking about while you were still in grade school? You may want to put a prediction in the back of your journal and see how close you come.

BIAS RE-WRITEActivity A

Think of some of the sexual bias that exists today, even though many improvements have been made. Gather together some of the books you may have read when you were in the early reading stages. What do the pictures show? One particular example is Sylvester and The Magic Pebble by William Steig. Look closely at the pictures in the book. What do girls and boys do? What does the mother wear? There are many excellent unbiased books also written, one particularly good one is The Princess Book (Rand McNally & Co. 1974) which is a collection of stories about very unconventional princesses. Find a short story that is full of sexual bias or write one yourself and then rewrite it without bias. Illustrate your new book.

Activity B

There are many sex biased expressions that you hear often, some of these are cool dude, dizzy dame, slick chick, dumb broad and old bag. What are some others that you can recall? What do these mean to you? Where did some of them originate? How about coming up with some new unbiased expressions?

### ANAGRAMS

Anagram is a Greek word that means to transpose letters. Can you think of some? What about some from your vocabulary words? Some examples are below:

tied → diet  
thing → night  
dictionary → a dirty coin

### ACROSTICS

Acrostics are words formed from the first letter of each line in a composition. How about trying one with the letters of your name or your favorite food, color, etc? An example of an acrostic for sun is below:

Summer is fun  
Until school begins and  
No one is home to play with.

### HOMONYMS

Homonyms are words that are spelled differently but sound the same. Make a list of as many homonyms as you can think of. Can you illustrate some of them? For an idea, look at the book, The King Who Rained by Fred Gwynne. Make a crossword puzzle using some of the more common homonyms and have your friends try to solve it.

WITCHES AND BLACK CATSActivity A

Don't walk under that ladder! Knock on wood! Do you stay in bed on Friday the 13th or carry a silver dollar or a lucky rabbits foot? Then you may be superstitious. Where do these superstitions come from? Some go far back in history and some are more recent. For example, lighting 3 cigarettes from one match is said to be bad luck. This can be traced to WW I where a match light for that length of time gave the enemy a target. Where do some of the other superstitions originate?

Activity B

Make a list of superstitions -- which are for good luck and which are for bad luck?

Activity C

Illustrate some of the superstitions that you have found.

Activity D

What about the terminology associated with superstitions, witchcraft, amulet, blarney stone, fetish, omen, palmistry, voodoo, or occultism? What do some of these mean and where did they originate?

ALPHABET WORD

Can you use the whole alphabet in order to make a sentence that makes sense? An example is: A boy cut down every fourth green hastily invented jutty, knocking ladders, making noise, offending people, quietly racing sideways toward uneven visable wide x-rayed yellow zebras.

WORDS FROM WORDS

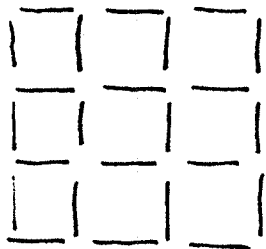
How many words can you make out of your name? What about a holiday that is coming up? Remember you can only use each letter in the first name once in each word you are forming. For example, if your name was Meridith, you would not be able to make the word there because Meridith only has one "e" and there has two. Have some of your friends try their names too and see who can come up with the most words.

OODLES OF NOODLESActivity A

Funny Money -- on the planet Tralfamadore, the money system is based on objects not highly valued on earth. One rubber band is worth as much as a paper clip plus a pencil. A pencil is worth as much as a paper clip and a button. And three buttons are worth as much as two rubber bands. If dinner costs one pencil, how many paper clips would you need to pay for it?

Activity B

Toothpick Teasers -- try viewing these three puzzles from a different angle each time. Begin by placing 24 tooth picks in the shape shown below. Your solutions must be the exact number of squares called for and all the tooth picks must be part of a complete square.



1. Remove 4 toothpicks and leave 5 squares.
2. Remove 4 toothpicks and leave 6 squares.
3. Remove 8 toothpicks and leave 2 squares.

Activity C

All the Way to China -- if there were a Hole all the way through the earth (an impossible situation because of the semi-liquid magnus under the earth's crust), what would happen if you dropped a ball into that hole?

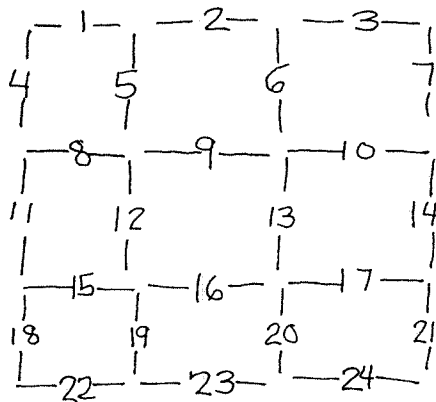
Alvino, James  
Instructor-Sept. 1982

ANSWERS TO OODLES OF NOODLESActivity A

Funny money -- Two rubber bands equal two paper clips and two pencils, which also equal three buttons. Two pencils equal two paper clips and two buttons, so three buttons equal four paper clips and two buttons. If you subtract two buttons from each side, you see that one button equals four paper clips. Therefore, one pencil equals five clips.

Activity B

Toothpick Teasers -- #1-remove 1, 11, 14 and 23.



#2-remove 11, 12, 13 and 14.

#3-remove 5, 6, 8, 10, 15, 17,  
19 and 20.

Activity C

All the way to China -- a ball dropped in an imaginary hole all the way through the earth would eventually (and theoretically) come to rest in the center of the earth. An equilibrium would be reached between gravity, inertia, and friction after perhaps thousands of oscillation back and forth.

Appendix C

SCIENCE

### SCIENCE OBJECTIVES

The gifted student will gain a better understanding of the relationship between people and the environment while learning valuable research, collecting, recording and classifying skills.

The gifted student will develop abilities in comparing and contrasting cause and effect relationships (e.g. The Plant Family).

In all these activities, the gifted student will be required to engage in critical thinking which will aid the child in becoming successful at problem solving.

### TINY SOCIAL SOCIETIES

#### Information

There are over 10,000 kinds of ants, which vary in size from  $1/25$  of an inch to over 1 inch. Ants have been around for more than 100 million years according to the estimates of scientists. Ants live in a very organized society, where each member has a specific task, called a colony. A colony may consist of as many as 10,000 ants.

#### Activity A

Research one type of ant. Find out as much about their living style as you can. What are the classes or castes of ants? What jobs do each of the workers take care of? How do ants reproduce? Who are their enemies? What function do ants serve for the environment? How does the ant society compare to ours?

#### Activity B

See if you can borrow an ant colony or try to find the plans and make one. Do you know what you need to have a successful colony? See if you can begin one in your school room so that you can daily observe the life and habits of the ant.

## CONSERVATION

### Information

Conservation is the management, protection, and wise use of natural resources. There are eight main kinds of conservation - soil, water, forest, grazing lands, wildlife, mineral, energy, and urban.

### Activity A

Pick one of these types of conservation and do some detective work on the programs that your community has put into effect. Are they working? Do people take advantage of the opportunity to save and recycle? What are the outcomes of these community programs? Is there an area that is lacking? Can you come up with any ideas?

### Activity B

Interview the mayor or someone in community service that may be able to give you some of the answers to your questions. Do they have any ideas on some extras that young people can do to help?

### Activity C

Take a walk through a park or just on your way home from school, but go with an empty bag. Collect all the junk that is on the ground. Can you build or make a piece of junk art?

## ZODIAC

### Information

Zodiac is a Greek word meaning "wheel of life". A special band of constellations that is around the celestial sphere is known as the zodiac. There are 12 constellations in the zodiac circle that are named after beings full of life, such as the Ram, the Bull, the Lion, etc. Each constellation also has a sign or symbol associated with it.

Astrology is an ancient sky-reading craft that has two separate parts-natural, which is about telling time, and judicial which is interested in telling stories. Judicial is sometimes called mundane or common place astrology.

### Activity A

Using the zodiac, find under which sign you were born. What planet is suppose to have influence on you? What characteristics are you to possess because of when you were born? Do these fit you? Which of the four elements has influence over you?

### Activity B

Look in the paper at the horoscopes. What is a horoscope? Do you believe they have any merit-why or why not?

### Activity C

Write some horoscopes for the different signs of the zodiac. Don't forget to take into consideration the traits each sign possesses.

## DYES FROM PLANTS

### Information

A dye is something used to give color to almost any object. We use food dyes in the kitchen and our clothes are dyed with chemicals. There are dyes for wood, plastic, fur, hair, ink, leather, and many more things. The first dyes were made from natural things such as bark, berries, flowers, leaves and roots. Some of the dyes today are still made from plants, such as indigo which comes from the Indigo plant grown in India. Henna and Logwood are two other natural dyes still used.

### Activity

Try to make some dyes from plants, roots, or flowers that are in your area. For example the tap root of a dandelion will yield a dull magenta (your parents would be really happy to have you dig 1 pound!), and the Lily-of-the-Valley leaf will give a light yellow-orange. Do some research and find other plants that you can use and then make some dye to dye some rice paper or old material.

For the dye:

one pound of the weed, bark, root, etc.  
four teaspoons of alum

Soak the plants for 24 hours, boil for three, strain the plant matter from the dye and use or put in a covered container.

## SPIDERS

### Information

The Argiope, an orb weaving spider has some interesting legends associated with it. One is that of the Navajo Indian's. Legend has it that a spider woman was a goddess who lived in the ground. A lost Navajo maiden was helped to find her way home when the spider woman blew a hole in the ground for the girl, after first teaching her to spin and weave. Some Navajo's leave a "spider hole" in their blankets for good luck. The scientific name for the spider family, Arachnida, also comes from a legend-that of the Greeks. Can you find this legend?

### Activity A

There are many species of the Argiope spider-3 live in the United States. Which 3? Who spins the beautiful webs- males or females?

### Activity B

Spiders are of many kinds -- find out about some of those that interest you. How about the jumping spiders, water spiders, tarantulas, fisher spiders, crab spiders, funnel-web, wolf, tangled-web or orb weavers. Which live in your area? What do their webs look like? How is spider constructed?

### Activity C

Build a web model with yarn on a frame. Don't forget the Stabilimentum.

CRYSTALSActivity A

A crystal is a solid that is composed of atoms that are arranged in an orderly pattern. Some examples of crystals are snowflakes, metals, rocks, salt, and sugar. Become a crystallographer and study some crystals. How are they classified? What are some of the minerals that fall into each classification?

Activity B

Make some crystals and enjoy the results:

2 cups water

4 cups sugar

cooking pot, spoon, large jar with lid,  
small cup, foil and some thread.

Heat the two cups of water in the pot on a stove until steam forms. Stir in the sugar until it is all dissolved. Pour a small amount in the bottom of the cup (about an inch), and then pour the rest into your clean jar and put the lid on. Cover the cup with a piece of foil. In a few days, take the largest crystal from those formed in the cup and tie a string around it, long enough so that the crystal will hang almost to the bottom of the jar when the jar is closed. Cover the jar and keep watch as the crystals grow. Keep a chart of what occurs. The results are edible rock candy. Enjoy!

CAN YOU BE AN ASTRONAUT?Activity A

The word astronaut means "Sailor among the stars" and comes from the Greeks. Astronauts work for the National Aeronautics and Space Administration (NASA). Do you know how they are selected, what two kinds there are, what the physical requirements are, what educational background is the most sought after, or what personal qualities are desirable? Do some research on these questions to see if you could qualify. Have the qualifications for astronauts changed since the program was first begun?

Activity B

Can you devise a means to check reaction time? Try it out on some of your friends. Why is a quick reaction time necessary.

Activity C

Habit formation is a part of training for complicated tasks. Try to use the hand you normally do not write with and practice your name daily for a few weeks. Save your practice sheets. What does this show you?

Activity D

Write a letter to NASA and request some information on becoming an astronaut. Give them all your vital statistics and ask if there are any things you could be doing now to prepare for your future dream.

THE PLANT FAMILYActivity A

Bring in some seeds or cuttings from your yard and grow them in the classroom. Vary the conditions under which they grow, for example the amount of light, water, rich soil and water. Using diagrams and charts, record the growth. What did you conclude?

Activity B

Research what a plant needs to survive and compare and contrast it to a human. Compare such things as respiration, digestion, circulation, excretion, reproduction, acquisition of food and tropism (movement).

Activity C

Using trade books and the encyclopedia, trace the scientific classification of your favorite plant. For example: Red Delicious Apple

Kingdom:	Plant
Phylum:	Spermatophyta (all seed plants)
Subphylum:	Angiospermae (flowering/fruit from seeds)
Class:	Dicotyledonaw (seeds with 2 catyledons)
Order:	Rosales (roses and their relatives)
Family:	Rosaceas (produce roselike flowers)
Genus:	Pyrus (produce apple fruit)
Species:	Malus (cultivated apple tree)
Variety:	Red Delicious

Activity D

Talk to a local botanist, farmer, or contact the U.S. Department of Agriculture and find out about some of the enemies of crops in your area. What is done about them? Does this harm the environment in any way?

PROJECT SLEEPActivity A

What is sleep? Who needs it and how much? What are the levels of sleep? At what level do you dream? What is a dream? What is a nightmare? What is somnambulism?

Activity B

Devise a questionnaire concerning regular times that your classmates go to bed and rise. Graph and chart your results and share them with the class. What happens when people don't get enough sleep?

Activity C

How do some different animals sleep and how much?

Activity D

Transport yourself to Venus and let the Earthlings back home know through a picture, poem, story or any means you wish how the people of Venus recharge.

WEATHERActivity A

What are some of the instruments used to measure the weather? How far in advance are their predictions usually made? What exactly does a meteorologist do?

Activity B

There are many different types of clouds. Name them. What do the prefixes alto, nimbus or nimbo, and fracto mean? Can you make some of the different clouds using different media and show what they usually precede in weather.

Activity C

Make a cloud using a quart juice bottle or flask, ice cubes, boiling water and a piece of screen. Pour boiling water into the bottle and then pour out all but 2 inches. Quickly place the screen on top of the bottle and place the ice cubes on top of it. Hold a piece of black paper behind the bottle and watch the cloud form. Why?

Activity D

There are many types of violent storms-the hurricane, typhoon, cyclone, baguios, and willy-willies. What do they all have in common? Which storms are frequent in your area? What safety precautions should you take if a storm is near?

Activity E

Write some similies, a cirrus cloud is like..... or a hurricane is like.....

## WHAT IS COLOR?

### Activity A

When sunlight is reflected from a mirror into a pan of water, what happens? Why? What produces the colors? How many are there? What do waves have to do with color? Which are the shortest? The longest? What do the words reflection, absorption, and invisible spectrum have to do with color? Which are considered warm colors and which cool?

### Activity B

What are the primary colors? How can they be mixed to produce others? Make a color wheel using any media that you would like.

### Activity C

What is color blindness? Do you know anyone who is color blind? How is it tested? Can you find a chart and test some of your friends?

### Activity D

Rainbows have always fascinated people. What happens when there is a double one? What does it take to make this occur? How long did the longest rainbow last? Where was it?

### Activity E

There are many stories about the end of the rainbow. You and a friend were in the right spot at the right time. What mysteries did you uncover at the end of the rainbow?

JAWSActivity A

The movie "Jaws" brought much attention to sharks. What are some of the different species of sharks? Which ones are a threat to man? What senses help sharks find their prey? How fast can a shark move when aroused by prey? How do sharks attack? Where and when do most shark attacks occur? Why do sharks attack people?

Activity B

People collect sharks teeth-why? Make a poster showing the different kinds of shark teeth and label each tooth.

Activity C

Make a papier mache model of one species of shark. By mixing paint, try to get close to the natural color.

Activity D

What are some of the superstitions and customs that govern the relations of sharks with divers and fishermen in the tropics?

Activity E

What are some products made from sharks and the uses of these products?

Activity F

You are Jaws of the sea-describe what goes through your mind as you spend a typical day.

Ratigan, Hugh  
Reach Program  
Hilton, New York

ESP-IS IT ALL IN YOUR MINDActivity A

What is extrasensory perception? It is claimed that there are four different types of this phenomena: telepathy, clairvoyance, precognition, and psychokinesis. What do each of these do?

Activity B

Telepathy and clairvoyance are sometimes tested using a deck of Zener cards. Make your own deck of Zener cards using the five different symbols and colors. The symbols are +, 0, ★, □, and ≈. Using tagboard or paper thick enough so that your symbols can't be seen through, make the 25 cards. Have students take turns being senders and receivers and make a table to record the data. What does your chart show? What would be considered happening by chance? If the experiment is repeated with the same people, will the results be the same? What can you conclude about ESP?

Activity C

There are people who claim to have ESP powers and have helped the police solve crimes and find missing persons. See if you can do some research on one of these people. If you have questions, you could write a letter and enclose a stamped self-addressed envelope.

Activity D

If you possess special powers, how would you use them?

## DINOSAURS

### Activity A

Dinosaurs hold great fascination for all of us-even their names are interesting, like the Brontosaurus and the Heterodontosaurus. What kinds of animals were dinosaurs? What caused them to become extinct? What did they eat, who was the largest, the smallest, which were enemies, which were the fiercest, the fastest, the slowest, etc?

### Activity B

Make a timeline showing which dinosaurs lived during which period, what their size was and how many million years ago each period was.

### Activity C

There are two major groups of dinosaurs-what are they and which dinosaur belonged to which group?

### Activity D

There are many good books written on the dinosaur-look at some of these and decide which is your favorite and find out all you can about your new friend. Make a papier mache model and try to paint it in as close to the color as you can.

### Activity E

How about an original song for your dinosaur. Since their names are so long, can you give him a nick-name?

PLANT MEDICINEActivity A

Many of the drugs that are on the market are derived from some rather common plants, many of which may be in your area. The following list are plants that are used in the production of a medicine. See if you can find the name of the drug and the illness that they are used for.

peyote  
cola  
foxglove  
ergot  
madagascar periwinkle  
ginseng  
willow  
dandelion  
sassafras  
rauwolfa  
curare  
aloe vera

Check in the encyclopedia and there is also a very good article in the September, 1974 National Geographic.

Activity B

You are a scientist and have just discovered a miracle cure for a disease. What plant did you use to find your cure and what did you have to do to it? Write an article for a medical review magazine and tell all the wonderful attributes of your new drug.

## BUTTERFLIES

### Activity A

Butterflies are very beautifully colored graceful insects. Butterflies live almost everywhere in the world, and there are many species that live around our area. Focus on the adult butterfly-what does it eat, what is its life span, where does the butterfly go in the winter, how does the butterfly protect itself, how is the body of a butterfly made up, and what gives the wings their beautiful color and patterns?

### Activity B

One particular art form that lends itself well to the making of a butterfly is the mola. They originated with the Cuna Indians and they made the mola of brightly colored cloth and then turned them into garments. A paper mola of a butterfly can be very effective. Find out how to do a mola and give it a try.

### Activity C

Another quicker way to achieve the symmetry that the butterfly has is to fold a piece of white paper in half, unfold it and on the left hand side near the fold paint a 3. While the paint is still wet, fold the page and press to get the design on the otherside. After it dries, keep adding design to one side and folding to get it on both. A thin black line can be drawn in the middle.

Appendix D

SOCIAL STUDIES

### SOCIAL STUDIES OBJECTIVES

By comparing and contrasting life styles in different countries, the gifted student will gain insights about other cultures.

In some activities, the gifted student will explore fundamental aspects of leadership and the characteristics of a good leader.

The gifted student will develop an appreciation of the role that values play in his or her life both now and in the future in several of the activities (e.g. the Time Capsule, Aging, and Advertising).

CONDOMINIUMS OF 1300 A.D.Information

Cliff Dwellers were Indians who built their dwellings in Southwestern United States on protected ledges or hollow spaces in cliff walls. They used sandstone blocks and mud mortar to build the two, three, or four story dwellings. There were few doors on the ground floor so in case of an enemy, the ladders were withdrawn, offering the Cliff Dwellers some protection. There were also underground rooms which could be entered through a hole in the roof. The Cliff Dwellers are very interesting to find out more about. Look into the lives of these people and especially at these very early apartments.

Activity

Using mud and sand or a media to represent it, make a cliff dwelling to show how it was put together. Don't forget the ladders and try to make it as authentic as possible.

## MASKS

### Information

When we think of masks, we usually think of Halloween or a masquerade or costume party. Many societies in the world have used masks for other than just a disguise. There were ceremonial, theatrical, burial and death masks, and festival masks. Sometimes one mask would be used for more than one of the above categories. The masks were made of many different substances and some of the first were probably animal heads. Some were made of paper, cloth, grass, hide, leather, metal, shell, wood, or stone. Some were said to give the wearer magic powers, while others represented the art form of the society. Some of the societies that used masks were the Indians, the Japanese, the Greeks, the Egyptians, and the Chinese.

### Activity A

Choose one of the societies and research all you can about their masks, their uses, what they were made of, etc.

### Activity B

Using a media as close to the material as the real mask was made of, construct one. You could use plaster of paris for stone, or papier mache for some of the others. Paint it in the colors they used and explain it's significance.

NAVAJO SAND PRINTSInformation

The Navajo Indian tribe is the largest tribe in the United States. The Navajo live in parts of Arizona, New Mexico and Utah, where the reservation covers 14 million acres.

Activity A

What is a reservation, a hogan, a medicine man, and a religious ritual? Find out all you can about the Navajo and their lives, skills, and heritage.

Information

Sand painting was an important part of the Navajo rites, for both weddings and healings and religious ceremonies of all types. They used symbols and colored sand painting.

Activity B

Look up the symbols that the Navajo used and make a chart or poster of them. Then dye sand using food coloring, and with glue and a piece of tagboard, make a sand print. What ritual is this for?

## 4-Social Studies

FAMILY TREEActivity A

Fill in as much of the family tree as you can. Where were your ancestors born? When? Who was the oldest relative you had? How old? Make a family time line. Are you named after anyone? What were the occupations of your relatives?

Activity B

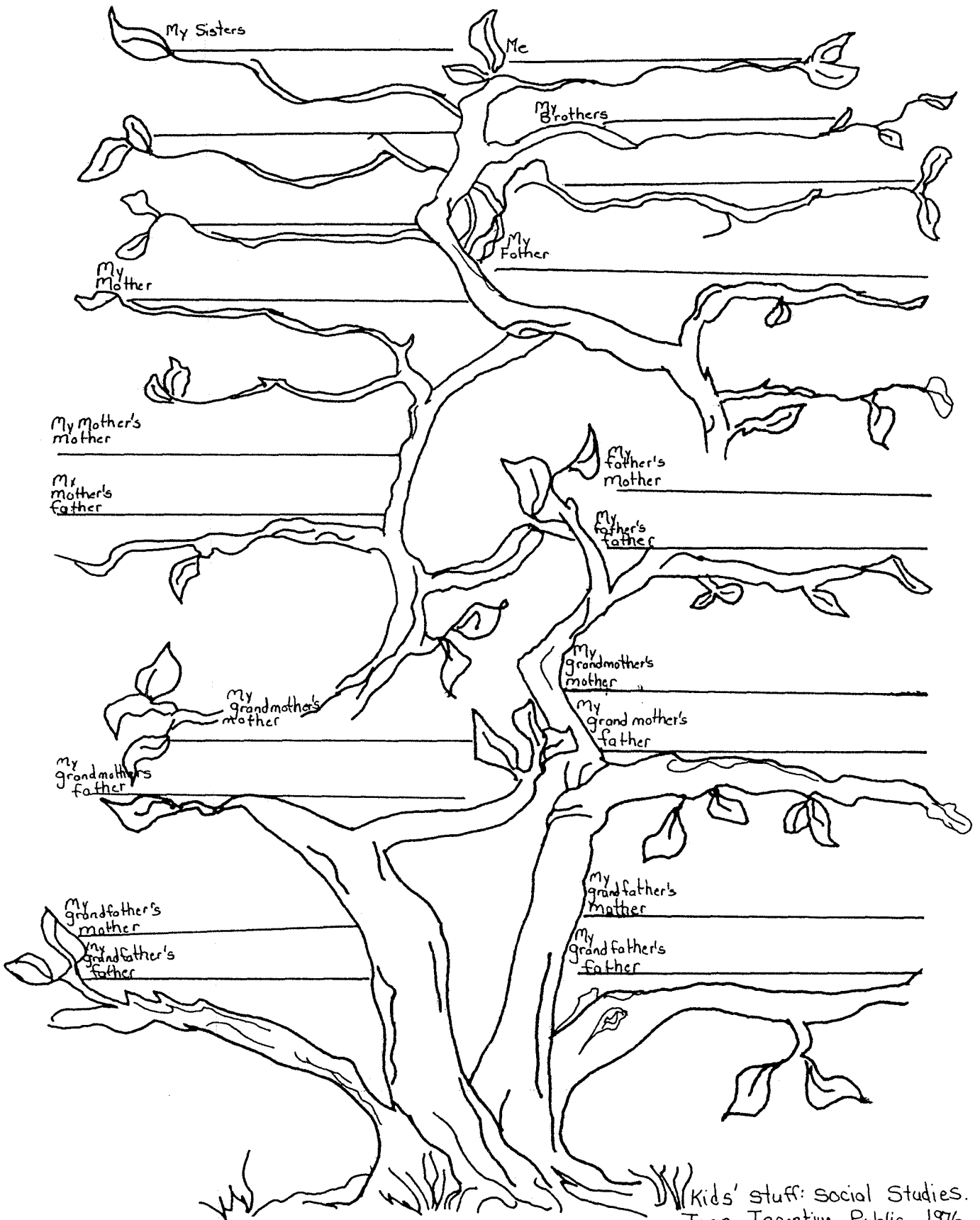
If you or some of your ancestors were born locally, visit a Register of Deeds office and look at some of their birth certificates and death certificates. What is recorded on a birth certificate? A death certificate?

Activity C

Project yourself 50 years into the future and add on to your family time line.

Activity D

Design a family crest showing what you have discovered about your name.



HOLIDAYSActivity A

Make a list of all the holidays that you can remember- now pick two or three that you are especially fond of and trace their historical origins. What are some of the customs and tradition that are associated with the holiday? Does your family have any traditions that you plan on continuing when you have a family of your own? What music is associated with your holiday? What about foods, greeting cards, costumes, etc?

Activity B

What about a holiday of another country? When is it celebrated, why, how, etc?

Activity C

Think of your dullest school month and design a holiday to be celebrated with your class. Include some special music, food, costumes, and anything else that you would like. Talk to some of your friends for ideas and then present your holiday to your teacher. Maybe she will let you try out the new holiday!!

ADVERTISINGActivity A

Advertising has a great deal of influence on consumer buying and billions of dollars are spent by advertisers to try to get you to buy their product. How do you and your friends decide to buy the items you do? What about your parents and some older people? What influences them the most? What are the costs of advertising in a magazine, a newspaper, on T.V. (during prime times and specials?), or the radio? Which media meets the greatest number of buyers?

Activity B

Look at one of the medias and then choose several ads and decide who the ad is directed towards? Does it have appeal? Is it advertising a bargain, quality, time to get smart? What makes it appealing-is there a catchy tune you find yourself humming, a good logo, great graphics, etc? About how much does that company spend for an ad campaign? Write to the advertising director of a company and ask for some information, for example the more comprehensive campaign of a new product.

Activity C

Using what you have learned as to what people pay attention to, make your own ad campaign out for a new product you have developed or for a product you feel is poorly represented by current advertising.

## 7-Social Studies

HISTORY FROM THE CEMETERYActivity A

From gravestones in a cemetery, much can be learned about a community -- the life span of its members, how many people served in the military, if there were any epidemics, how many children died in infancy, etc. Research some of the vocabulary associated with a cemetery--epitaph, crypt, eulogies, mortician, cemetery, cremation, boot hill, inscription, deceased, geneology, mortuary, catacombs, sepulcher, wake, requiem, shroud, funeral, corpse, and cryonics. What are some of the customs related to burials? In other countries?

Activity B

What do the symbols on tombstones stand for -- skeleton or bones, sun, dove, feathers, weeping willow, candle, or hourglass?

Activity C

Interview someone from the local history room or a minister or older person who may know much of the history of your community. Talk to them about the oldest person they can remember. Then visit the cemetery and see if you can find that grave. What are the dates on it? Find the grave of a young child. What are some of the epitaphs on the headstones? Sad ones, humorous, poetry, etc.

Activity D

Do a rubbing of one of the stones by using newsprint or shelf paper. Tape it on the stone and using a dark crayon, begin in the middle and draw the crayon over the stone in smooth strokes.

Activity E

Look at some of the books written on epitaphs. Some examples are Edgar Lee Master's Spoon River Anthology, and Comic Epitaphs From the Very Best Old Graveyards by Henry Martin. What are some of your favorites? Write an epitaph for yourself.

Activity F

While you were in the cemetery, did you notice how much land that it took? What would be some solutions to save space which will become even more scarce as time goes on?

GET TO KNOW A FAMOUS PERSONActivity A

Who is your favorite living famous person? Get to know all you can about him or her -- where they live, their age, their home life, are they married, do they have children, what kind of schooling did they have, what contributions have they made to society, how is their life different from yours, are there sad or happy incidents in their life, what characteristics does this person have that you especially admire, etc? Write up a biography of this person.

Activity B

After you have compiled as much as you can about this person, share him or her with the class in the form of 20 questions and see if they can guess who you are describing.

Activity C

Write a letter to your famous friend and tell him or her some of the things that you admire most. Do you have any questions that you would like answered? Enclose a stamped self-addressed envelope and maybe you will get a reply (don't be too disappointed if your letter isn't answered as you know how busy this person is).

POSTCARDS FROM IMAGINARY TRAVELS

Choose a place you really want to visit more than any other place in the world. Do some research on this place -- is it in or out of this world? After you have found out some facts, send back a postcard with a picture you have drawn or colored that shows us something about where you are. On the back of your picture, write us a letter and include at least three interesting facts about where you are.

EARTH BALLOONS

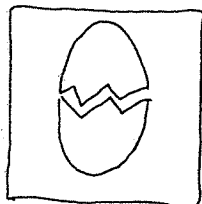
Show us where you visited by making the earth (or if you visited another planet, do that planet) out of a large balloon. Blow up a large round balloon and cover it with strips of papier-mache. After it dries, paint it blue to be the water and make the continents out of any paper product you'd like and fit in the land masses. A string around the middle can be used to represent the equator. Mark where you visited with a big red star.

NUMBERS AROUND THE WORLD

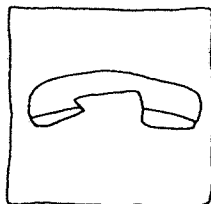
Look up the numbers 1-10 in Spanish, French, and German and compare them to the English words for the same. Can you see any similarities? Numbers are one form of a universal language. The Arabic number system that we use is also used in some non-English speaking countries. What are some of these countries? How is the Arabic system improved over the Roman numerals? When did each system come into being?

SYMBOLS

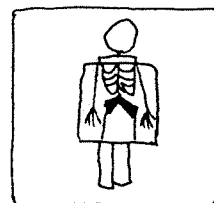
Numbers are universal because they are symbols. The language of symbols has no words, so it can be understood by people of all countries. Some symbols like those found on a highway are much quicker to recognize at a distance. Below are a few of some universal symbols-look in the back of a large dictionary for some others. Make up a sheet of these and see if your classmates can recognize them.



fragile



telephone



x-ray

TIME CAPSULE

If you had to explain what civilization was like in Wisconsin in the 1980's to someone who will be living in the 22nd century, what would you say? What things would you include in a time capsule that would be representative of society now? Are we the Pepsi generation? What are the fashions, foods, fads, etc? Who are our leaders, how is the economy, etc? Think of all the ways that you could explain society today and what items would you want to include in your time capsule? It can't be too large so you will have to be selective.

AGINGActivity A

Aging begins at birth and continues through a lifetime until death. There are different stages of growth and development that you have gone through. For example, think of all you accomplished during the first year of your life. Make a time-line to show the different stages that you have gone through. What did you accomplish as an infant, in early childhood, later childhood, a teenager, young adult, older adult, middle-aged adult, and on to old-old adult? You will have to project into the future from the stage that you are now. Draw some pictures of how you think you will look at each stage. Maybe you can use some photos for your earlier life. What will you be doing when you are middle-aged? What will your accomplishments have been? How is your family life, where do you live, etc?

Activity B

What are some of the changes that have occurred in society now that you are close to 100 years old?

Activity C

Observe some of the ads on television and in magazines that are aimed at older people. How would they make you feel? When are these ads on or in what magazines?

JAPANActivity A

When you think of Japan, do you think of Hiroshima, Sony, Buddha, the Rising Sun, Toyota, beautiful gardens, chopsticks, sumo wrestling, rice, tea, or bamboo? Japan was defeated in World War II and many of its cities lay in ruins. Japan is now a great industrial nation and you can probably find many items made in Japan in your home or garage. What can be attributed to this high industrial development? How is Japanese education different or the same as ours? What foods that are common in Japan, do we enjoy? What is their main religion? Compare the life of a Japanese child to your own life using all the information you have learned from doing your research.

Activity B

Origami is one art form of the Japanese. Find out what it is and try some. You may not have the right type of paper, but try a close substitute.

WISCONSINActivity A

How much do you know about the state you live in? Do you recognize the flag, seal, and symbol? Do you know your state motto? What is the state bird and flower? What is Wisconsin's main agriculture? Did you know the first kindergarten in the United States was in Wisconsin? What is some of the heritage of our state?

Activity B

Pick the town you live in or one that you are interested in visiting and find out all that you can about that area. Is it representative of Wisconsin as a whole?

Activity C

Now that you are familiar with some of the things about the state that you live in, you have been selected to serve on a committee to name the 55th state. You need a name, flag, motto, and a song.

EXPLORATIONActivity A

Do you have a favorite explorer? Maybe it was Christopher Columbus, Leif Ericson, Marco Polo, or some of the astronauts. All of the explorers had one thing in common whether they lived thousands of years ago or are exploring now-they are all going into areas unknown to man. What are some of the things that Christopher Columbus took with him on his ships that would be the same things that the astronauts went into outer space with?

Activity B

You are going to be on the first manned mission to Mars. You have been assigned to make up the list of items that will be needed to go along. Tell why you picked some of your more unusual items.

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