







BASIC GOALS FOR ELEMENTARY CHILDREN



LEVELS SEVEN AND EIGHT

BUREAU OF INDIAN AFFAIRS
DEPARTMENT OF THE INTERIOR

UNITED STATES
DEPARTMENT OF THE INTERIOR

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BASIC GOALS
" for
ELEMENTARY CHILDREN

LEVELS SEVEN and EIGHT

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I N T R O D U C T I O N

Bureau teachers, counselors, administrators, education specialists, and others interested in Indian education, long have been engaged in developing and revising guides based on needs and common experiences of Indian children to provide a framework for planning curriculums. A committee of educators from eight Areas and the Central Office, prepared this 1966 revision of the guides, Basic Goals for Elementary Children, composed of four volumes, and a scope and sequence chart in three sections. Acting as consultants to the committee, for varying lengths of time, were two tribal councilmen and two linguists, one of the latter from the Bureau and one from the Center for Applied Linguistics.

Basic Goals for Elementary Children, from the beginners level through the eighth, are guides only, to be used by teachers and other staff members in planning and organizing curriculum to meet the specific needs and interests of the children of their schools. The structured content reflects concepts, attitudes, and skills believed to be realistic and essential for Indian children to acquire in order that they may cope adequately with their environment and further their education.

These guides are not intended to be restrictive nor limiting, nor to be the final word in Bureau elementary curriculum. School staffs are urged to use them, to examine them for strengths and weaknesses, and to determine needed changes in content and format for future revisions.

In developing the guides, much effort has been put forth to indicate and to suggest learning content at each level, which will prepare Indian children to compete favorably with their peers in other school situations, which is compatible with the maturity of the children, and which takes into account both the rich cultural heritage of the children and their unfamiliarity with culture groups other than their own.

Throughout the total framework of the Basic Goals for Elementary Children, from the beginning year through the eighth level, there can be traced many important themes or basic concepts that should be developed with children as they progress through the years. Such structuring and sequencing of content gives direction to planning and organizing the local curriculum, yet permits much freedom for varying the emphases to accommodate the needs and interests of children of any particular school.

School staffs and individuals will find various ways to use the guides in their curriculum work. Some committees may find it helpful in using the three sections of the chart and the manuals to begin by:

1. Identifying an important theme, tracing it from the beginner through the eighth levels, or occasionally reversing the order and naming the theme appropriately.
2. Setting aside, for working purposes, goals in each level which reflect this theme and using these goals to serve as the nuclei of teaching units at each level.

Skillful development of these units with the children at each level will help them to deepen and extend their experiences, insights, understanding and skills, and advance their development of concepts related to a particular theme.

Another approach might be to:

1. Clearly identify, without referring to the guides, an important concept which teachers and parents believe children should develop.
2. Study the chart to determine if this concept can be traced from level to level; record the goals that manifest this concept or theme; write in additional goals that are needed to help guide the children in exploration and concept development.
3. Use relevant goals at each level as the nucleus for unit development. At times a single goal may be broad enough for the nucleus around which a great deal of learning can be acquired. More often, related goals may be selected from the various learning areas and clustered to form the nucleus of a unit.

The suggestions on activities, techniques, and bibliographies are not assumed to be exhaustive in any instance. While many good suggestions have been made, they must through necessity be limited in these guides. These are offered to help the teacher get started. It is expected that he will make additions and deletions to better achieve his purposes. Teachers will note changes in the format of the Basic Goals. Currently there are four volumes. The goals are arranged within content fields and a carefully prepared bibliography follows each subject area in each volume. These changes came about as a result of committee work in which individuals worked in the areas of their greatest competence and submitted goals by areas and levels. It is hoped that the more compact volumes with easy, ready reference, and useful bibliographies, may offset some apparent disadvantages such as fragmentation of goals, which makes it difficult to recognize flow from level to level and from subject area to subject area.

To function in English, the language of the school, Indian children must be able to communicate in English. To communicate in English requires mastery of language items to the extent that they can be produced spontaneously and automatically in correct context.

Communication in English involves real responses to real situations. For the Indian child coming to school speaking little or no English, or substandard English, his responses are an outgrowth of learning and the application of pre-arranged pattern drills. Time and effort must be devoted both to the sequential and structural practice of English and to the use of this English in other subject areas.

No attempt has been made in this guide to develop a structured sequence for the teaching of English as a second language. However, a number of suggestions appear for the use of situational or functional English. In addition to suggestions in Speaking, sample language implications appear at each level and in each subject to indicate how there may be carryover of patterns learned, or being learned, into all areas of work. Patterns developed through sequential practice should be related to children's activities and experiences such as those in the dining room, the dormitories, and on the playground. To have a quality program in English as a second language, emphasis must be placed on communicating in English throughout the school day.

BUREAU EDUCATIONAL PHILOSOPHY

The basic philosophy of the Bureau of Indian Affairs encompasses the belief that all Indian children must have the opportunity to realize their full potential and to become useful members of society.

The great explosion of knowledge demands from each child independence and self-initiative. To facilitate ongoing and independent learning, teachers should have access to widespread and well-organized materials and services. They should bend their energies toward developing attitudes of discovery, problem-solving, research, and experimentation leading to creative and critical thinking. More specifically, the Bureau objectives for Indian education are as follows:

- A. To provide a climate conducive to aesthetic, social, and intellectual development
- B. To develop communication skills
- C. To develop and maintain sound health of body and mind
- D. To develop a feeling of belonging, a feeling of importance, and a sense of security coincident to an adequate self-image in both the Indian and non-Indian society
- E. To maintain pride in Indian heritage and to develop awareness, understanding, and respect for other cultures
- F. To develop a code of values acceptable to the student and to the society in which he lives; and to motivate in him a desire to practice it
- G. To develop economic competency
- H. To develop an inquiring mind.

G U I D A N C E

L E V E L S E V E N

EXPLANATIONS AND SOME SUGGESTED ACTIVITIES AND TECHNIQUES

Goal 1: Understands he has the potential to achieve

In review, an attempt has been made at previous levels to develop the following concepts of self-image and self-identity:

- Beginner: "I am important."
- First: "I belong."
- Second: "I have self-control."
- Third: "I am capable."
- Fourth: "I am a responsible person."
- Fifth: "I accept and respect myself."
- Sixth: "I am adequate."

If the pupil has developed these self-images, he may now be able to understand that he has the potential to achieve. As he experiences success and achievement in the academic areas, he may gain an understanding that within himself he has the ability to realize his full potential. /Bailard (7), Foster (10), Strang (24), and Weitz (5).

Goal 2: Extends his ability to make choices when confronted by several alternatives

Youth at this level still need much practice in making choices. Whether or not their choice is a wise choice is not as important as the fact that they actually made a choice and followed it through to its logical conclusion. Children should not be told everything they are to do from what clothes to put on in the morning to their last action before going to bed. Instead, pupils should be given many opportunities to make choices of:

1. Work to be done.
2. Plans for a trip.
3. Expenditure of group funds.
4. Games to be played.
5. Conduct in a given situation.
6. Assembly program for which they are responsible.

/Kitch (18), Stoops (23), Strang (24), and Wolfbein (25).

EXPLANATIONS AND SOME SUGGESTED ACTIVITIES AND TECHNIQUES

Goal 2: (Continued)

Sample Language Implications Related to this Goal

Possible conversations to use in a role-playing situation:

Conversation 1:

Bill: What are you going to do tonight?

Jack: I can't decide. I'd like to see the movie and there's a basketball game, too; but I have to give an oral report in class tomorrow. I need to work on that.

Bill: Come on to the game with me. I think it's going to be a good one.

Pete: I'm going to the movie. I don't want to miss it. Jack, it's really a good one.

Jack: Well, let me see. The movie probably will be shown again and there will be more good games. I'd better try to do my best with this chance to give an oral report. I need all the practice I can get.

Conversation 2:

Mary: Here's the list of things we can choose to do in our social studies unit.

Jane: What are you going to choose?

Mary: Well, making a scrapbook of news clippings would be easy.

EXPLANATIONS AND SOME SUGGESTED ACTIVITIES AND TECHNIQUES

Goal 2: (Continued)

Jane: How about this one - "Writing for free charts"? That wouldn't take long.

Mary: Miss Smith suggested that we choose one which would help us work on some problem we have. I guess I'd better think about that.

Jane: Well, what's your problem?

Mary: I get so scared when I talk to the class. I don't think I talk loudly enough.

Jane: Oh well, you're doing all right in that class, anyway. Your grades are pretty good, aren't they?

Mary: I'd better try to improve in making reports, anyway. Let me look at those topics for the oral reports. I'll decide on one.

Goal 3: Takes increased responsibility to meet standards of good citizenship set up by students and school

At this level, a pupil should begin to be governed by internal controls rather than depending entirely on external direction. His behavior should manifest some understanding of the reasons for standards of conduct, as well as perception of the standards. He should be able to relate this understanding to various areas of his class work. /Foster (10).

Goal 4: Assumes leadership and responsibility for campus improvement with a minimum of supervision

On the basis of his past experiences related to this accomplishment, a pupil should now be able to make suggestions for group activities and assume some leadership in carrying them out. Pupils may need some direction in the selection of suitable activities. /Bauer (8), and Foster (10).

Goal 5: Develops ability to make independent decisions as to use of time

Continued emphasis should be placed on being punctual, and on using time wisely. Children need to be guided in perceiving reasons for being on time, and in budgeting their time advantageously. Pupils may graph their daily

EXPLANATIONS AND SOME SUGGESTED ACTIVITIES AND TECHNIQUES

- Goal 5: (Continued) schedules and be assisted in evaluating time allotted to various activities. An assembly program may be presented to portray the wise use of time and effective study practices. /Strang (24).
- Goal 6: Continues to explore career fields and aspirations Continued attention should be directed to the study of the world of work. To assist pupils in gaining some information upon which they may later intelligently choose a career, the following areas may be stressed:
1. Why people work
 2. Why people go to high school
 3. What happens to dropouts
 4. What are the rewards of work
 5. Primary job identifications.
- /Hunt (12), Jackson (13), Kitch (18), Patton (3), Stoops (23), Strang (24), and Super (4).
- Goal 7: Understands that every man is free to rise as high as he is able and willing This is a traditional and valid American concept. One way to develop understanding in this area is to trace the careers of successful people. A unit of study of successful people, including Indians, within the framework of the social studies area, would be effective. /Gordon (28), and Strang (24).
- Goal 8: Knows what it takes to produce goods and services Pupils often take things for granted. It is important that they understand early in life that advancement and achievement are based on human ability and endeavor. Activities connected with this goal should place emphasis on the relationship between human ability and endeavor and the goods and services we enjoy, and on the fact that without a favorable attitude toward work, one can achieve little.
- Goal 9: Extends understanding and responsibility of borrowing Banking procedures relative to lending, and the responsibilities of a borrower might be taught in connection with work in mathematics. Children will need help in developing an understanding of, and respect for, money and property which belong to them, their parents, and their teacher.

EXPLANATIONS AND SOME SUGGESTED ACTIVITIES AND TECHNIQUES

Goal 10: Knows basic banking procedures

A representative of a local bank might be invited to talk to the class regarding simple banking procedures. If applicable, children should be:

1. Taught school banking procedures.
2. Encouraged to deposit funds in the school bank.
3. Taken on a field trip to a local bank.

/Patton (3).

Goal 11: Develops sensitivity to a clean and orderly work area

Pupils need to condition themselves to working in a clean and orderly work area. Pupils may observe various working areas for a week and at the end of that time report their observations in class. Class groups should help decide the number of pupils who can effectively be assigned to the various work areas and jobs.

Goal 12: Extends his respect for care and maintenance of equipment

A demonstration may be given of the proper use and care of classroom equipment; such as: a filmstrip, a film projector, a tape recorder, or an electric polisher. Children should be guided to realize that equipment, if abused, may never be as useful nor as attractive as it was originally.

Goal 13: Has some understanding of the nature and consequences of venereal disease

Within the framework of local school policy, and in the proper setting, informed adults--teachers-guidance, school nurses, doctors, and social workers--may accomplish this objective with boys and girls, separately. Films, lectures, and discussions may develop further an understanding of the nature and consequences of venereal disease, provided such techniques are used in the proper setting, and by informed adults. /Kirkendall (14), (15), (17), Levine (19), Levinsohn (2), and Neisser (20).

G U I D A N C E

L E V E L E I G H T

EXPLANATIONS AND SOME SUGGESTED ACTIVITIES AND TECHNIQUES

Goal 1: Extends his self-confidence in making decisions

Youth at this level may be in a state of adolescent turmoil. This normal turmoil, however, is further complicated for the Indian youth by cultural conflicts.

Efforts should be exerted to assist each pupil in stabilizing his self-identity, as he continues to seek answers to:

1. Who am I?
2. What am I?
3. What kind of person am I?
4. What is my role?
5. Who sets my limits?
6. Who is my boss?
7. What decisions am I allowed to make?
8. What decisions am I capable of making?

Goal 2: Understands he has the knowledge and skills to make decisions

Pupils at this level are faced with making many decisions regarding going on to high school, and in relation to their individual aspirations. Each one needs assistance in making these decisions and in becoming a more independent individual. The skillful teacher will create means by which every pupil can make decisions, live by those decisions, and analyze their effectiveness and adequacy. All children need assurance that they have the knowledge and skill to make decisions and to make proper adjustments, if they believe their decisions were ineffective.

Goal 3: Explores his future high school program

It is important for the pupil to receive guidance in depth in planning his transition to high school. Through the use of field trips, high school courses of study, handbooks, and resource consultants, the pupil may be assisted in making intelligent decisions concerning future high school education. /Fitzgibbon (9), Humphreys (11), Kitch (18), Paulson (22), and Stoops (23).

EXPLANATIONS AND SOME SUGGESTED ACTIVITIES AND TECHNIQUES

Goal 3: (Continued)

Sample Language Implications Related to this Goal

Example: Children plan questions to ask of someone representing the high school.

1. What will we be able to do when we finish high school?
2. What are the different programs in the high school?
3. I am interested in being a _____. What program would that be in? What courses would I take? (Could be asked relative to different careers.)
4. What can I take that isn't for career training?
5. How do I decide what program and courses to take?

Goal 4: Plans, with adult aid, and carries to conclusion, work that extends over several days or weeks

The teacher should continue to guide all pupils in extending their ability to make long-range plans which involve more complex situations. Unit activities provide many chances for children to do such planning.

Goal 5: Adheres to a balanced schedule

Anticipating the need for using time wisely for successful high school achievement, the teacher should continue to guide pupils in the judicious use of time. Through developing and adhering to a daily schedule, sufficient time may be planned for satisfactory classroom achievement and balanced participation in other activities of his interest.

Goal 6: Identifies major occupational fields

Although the purpose in achieving this goal is to identify occupational fields, concentration also should be in the areas of discovering interests and aptitudes as related to job identification. The pupil should gain a general knowledge of the different families or clusters of occupations.

Activities should reflect concentration on the following:

1. How should I plan for future education?
2. How can I discover my interests?

EXPLANATIONS AND SOME SUGGESTED ACTIVITIES AND TECHNIQUES

Goal 6: (Continued)

3. How can I discover my aptitudes?
4. Where am I likely to find success?

/Fitzgibbon (9), Humphreys (11), Kitch (18), Paulson (22), and Stoops (23).

Goal 7: Understands that through work he can achieve his goals

Pupils at this level need to develop a basic concept of work. They need to be guided in identifying what work means and its relationship to reaching goals.

Pupils should participate in many activities which develop the concept that goals, whether they be to acquire property, material wealth, or to achieve a state of being such as happiness, are attained through man's mental and physical labors. One cannot achieve one's goals without effort.

Goal 8: Understands the meaning of envy and its effect on success

An envious pupil may display a resentful awareness of another's excellence or success; a dislike for the successful pupil and an unhealthy desire for the advantages success may bring. Envious feelings may take several forms - from individual resentment to the bringing of social or peer-group pressure against the envied one. (Peer-group pressure may also be brought to bear against a pupil who has violated Indian cultural patterns. The action in such an instance would not be the result of envy but might appear so.)

As a pupil begins to demonstrate his ability in school, he often comes into conflict with his peers and he may have feelings of guilt. Such feelings affect individuals adversely.

In implementing this goal, the teacher should assist the pupil to perceive the implications of social, peer-group, and individual envy and its adverse effect on successful achievement. The pupil needs to develop respect for the uniqueness of the individual and to learn to judge him on his own merits, not by artificial standards. The teacher should help pupils to understand that Indians and non-Indians may have conflicting views concerning success and competition for success. Activities related to this goal should

EXPLANATIONS AND SOME SUGGESTED ACTIVITIES AND TECHNIQUES

- Goal 8: (Continued) reflect a positive approach to respecting the accomplishments of others. The pupils should also understand that envy is a negative deterrent to individual growth. Role playing is an effective technique which may be used in implementing this goal.
- Goal 9: Extends his knowledge of budgeting The pupil needs continued guidance in learning to budget and balance class and club accounts and to share in decisions on expenditures of funds. He may study the treasurer's report on funds spent and balances carried. He may need help to plan club and class budgets for parties and other activities. He can continue to make a simple budget of his funds. He needs to be helped in acquiring basic knowledge concerning interest charges and sales tax.
- Goal 10: Explores importance of education and training with relation to wages or salary The pupil may compare wages received in relation to work-school grants, unskilled wages, and skilled wages. He may make a study of occupations in the school and local community, to develop some understanding that school achievement and individual training help determine the wages or salary a person receives. Through group discussions, readings, resource people, and other means, the pupil needs to become informed of his opportunities and of his obligation to remain in school until competent to earn a living. /Fitzgibbon (9), Kitch (19), Paulson (22), and Stoops (23).
- Goal 11: Knows the cost of books, supplies, and property Committees might be appointed to find out and to tabulate costs of classroom materials, equipment, and furnishings, and report their findings to the class. Other committees might prepare estimates of the cost of replacement of abused or damaged furniture and equipment.
- Goal 12: Knows why he should respect the property rights of others Pupils should be involved in group discussions and in class projects related to respecting the property rights of others. At this level they should be able to develop some perception of the necessity for penalties for violation of property rights.

EXPLANATIONS AND SOME SUGGESTED ACTIVITIES AND TECHNIQUES

Goal 13: Participates in developing a school code of conduct based on democratic values

As a class project, committees might work with administrative and supervisory staff members in evaluating the needs of pupils in relation to the school code of conduct, and in drawing up or revising such a code. Committees might also acquaint other classes with the revised or new code, and work with the school staff in implementing it.

Goal 14: Develops a wholesome attitude toward marriage and family relationships

Commensurate with their maturity, through the use of appropriate staff members, or films, readings and discussions, pupils need to acquire correct information and a healthy attitude toward family relationships and of some of the responsibilities of marriage. In accomplishing this goal, previous goals in the area of sex education may be reviewed. /Adams (6), Kirkendall (14), (15), (16), and (17), and Levinsohn (2).

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S O C I A L S T U D I E S

L E V E L S E V E N

EXPLANATIONS AND SOME SUGGESTED ACTIVITIES AND TECHNIQUES

Goal 1: Studies and compares the life of people in selected nations of the Eastern Hemisphere, choosing for study such aspects as culture, history, and contributions of indigenous peoples to the life of the country

Pupils may engage in activities through which they can gain information regarding the homelife, food, shelter, religious beliefs, education, and recreation of some of the people of the Eastern Hemisphere. They may compare the life of these people with their own.

Information may be acquired regarding natural resources that are important to the countries selected for study, and to the United States. A pictorial map might be made which would show the location of major industries.

Children may be introduced to the concept of culture and guided in understanding some of the basic facets of their own culture and of others being studied.

The influences of environment on the countries studied should be stressed.

Children may discover some of the factors that led to the patterns of settlement of the countries, and compare them with factors which affected settlement of the United States. They may determine what factors have influenced the growth of the country.

Children may be helped to discover how these countries have made contributions to other parts of the world.

Pupils should be helped to discover the role the native or indigenous people have played in the development of the country. They might compare contributions of these peoples with contributions of the Indians and Eskimos in the United States and show how these people have developed within the context of the country's development.

Charts, time lines, and murals to show periods and patterns of growth may be constructed.

EXPLANATIONS AND SOME SUGGESTED ACTIVITIES AND TECHNIQUES

Goal 2: Develops some understanding of problems that are currently of major concern to the world; such as, China's emergence as a world power, or problems of other emerging nations of the world

Developing an understanding of some of the problems faced by emerging nations, which are of concern to the world, may be an on-going activity. Through following news events in magazines and newspapers, and on the radio and television, children may accumulate information regarding some of these nations and discuss its relationship to world peace and well-being. Near the end of the year, they might summarize the information and draw conclusions from the summary.

Goal 3: Understands and evaluates why and how efforts are made to develop and maintain friendly relationships between the United States and other nations of the world

Pupils should be guided in developing and understanding that as distance between nations is reduced through speed in travel, problems of these nations tend to become problems of common concern. Emphasis should be placed on likenesses of nations rather than differences.

Children may be introduced to attempts being made at establishing friendly relations through exchange programs of students, teachers, doctors; work of the scientists; and through the International Red Cross. Activities of the United States Information Agency and the Voice of America may be brought to the attention of the pupils.

Letters with pen pals in other countries may be exchanged. Pupils may learn foreign greetings. (See Language Implications, Level Four.) Some may report on immigrants who have had a direct influence on this country. Information on immigration laws may be gathered.

Programs the United States is sponsoring in South America, and other foreign aid programs may be touched upon briefly.

Goal 4: Discovers, from study, that a relationship exists in the world of work between education and training and the standard of living

Hypotheses which might be drawn in the study of the world of work and its educational training requirements are that:

1. In a large measure, one's potential productivity is measured by his education and his specialized training.

EXPLANATIONS AND SOME SUGGESTED ACTIVITIES AND TECHNIQUES

Goal 4: (Continued)

2. Promptness, proficiency, and trustworthiness are essentials of the world of work.
3. The acquisition of these essentials depends largely on education and training.
4. To achieve in the world of work, one must possess either a salable skill or salable training.
5. Jobs are important only as they meet the felt needs of the people.
6. There is some relationship between public demand for a job or service and the salary or wage for that service or job.
7. The amount of training and education required is related to the technological achievement of a country.
8. As the technology of a country advances, the jobs to be performed change, and the nature of the work to be accomplished changes.
9. As job needs change, workers must retrain themselves to maintain a needed skill.

Activities which may be engaged in to gather evidence upon which these hypotheses may be formed are:

1. A study may be made of employment in the local community or general area to determine how the jobs relate to demand, to the needs of the people, and to the educational and technological level of the area.
2. Education and training requirements for this employment may be studied. Employers may be invited to tell pupils about the types of jobs in their businesses, the kinds of persons they prefer to select for employment, and the training and education required.
3. Information on jobs and their education and training requirements may be obtained by writing to companies with which the pupils may be acquainted or by studying published junior-level occupational briefs.
4. On the basis of previously acquired information relative to the growth of the United States and to the inevitability of change, the relationship of jobs to the needs of the time and the level of the

EXPLANATIONS AND SOME SUGGESTED ACTIVITIES AND TECHNIQUES

Goal 4: (Continued)

development of the country may be studied. Some changes in the labor market that have taken place in the past and recently should be noted. Children should be led to understand that jobs now in existence may not be in the future, and that others not now existent may be, by the time the pupils are ready to enter the employment market.

Goal 5: Is introduced to basic aspects in the development of democracy in America, its background, important facets of its expansion, and the continuing struggle to achieve and maintain its principles

The teacher may introduce pupils to the origin of democracy in America through a limited analysis of reasons for colonization by the English, the Dutch, the French, and the Spanish, and of ways in which they adapted to their new environment. It will be necessary for the teacher to guide the pupils in acquiring an understanding of the role heredity (in terms of the culture the colonists brought with them) and environment played in the establishment of the government of this country.

Major historical events which affected the growth of democracy should be briefly reviewed to trace the development of the government of the United States. Influences which have threatened democracy should be brought to the attention of the pupils.

To reinforce the concept of democracy that is being developed, the teacher may guide pupils in:

1. Comparing ways in which the Pilgrims and Indians adapted to living in this country.
2. Imagining they were a group of newcomers to an area inhabited by a weaker group of people. They may decide what they would do to adjust to their environment, and to get along with those who were there before them; what kind of laws they would make to live by; and how they would govern themselves. They may be encouraged to suggest alternatives to their original decisions.
3. Developing a time line showing major events in the growth of democracy.

EXPLANATIONS AND SOME SUGGESTED ACTIVITIES AND TECHNIQUES

Goal 5: (Continued)

4. Role playing behavior of men during times of crisis, periods of achievement, and moments of confrontation in the development of the United States.
5. Making a scrap book of news items which are related to the functioning of democracy.
6. Listening to such recordings as "I Was There."
7. Noting the influence on the Indian and the Eskimo in the growth of this country.
8. Determining the importance of family life in the development of democracy in the United States.

Sample Language Implications Related to this Goal

Situation: Teacher and committee making plans to work toward this goal.

Teacher: We hear a lot about troubles between nations. I wonder how we can find out in what ways nations are working together and helping each other.

Jack: I wonder if there are any films on this. I'll check the catalog.

Mary: Let's watch the newspaper for news of countries working together.

Bill: Miss Smith, what are some areas in which countries work together?

Teacher: There are programs of student, teacher, or doctor exchange.

Joe: Do you think anyone who lives near here has been in another country on an exchange program?

EXPLANATIONS AND SOME SUGGESTED ACTIVITIES AND TECHNIQUES

Goal 5: (Continued)

Teacher: I don't know. How could we find out?

Betty: I wonder if the newspaper office would know. I'll call them.

Dick: Maybe we could write to the United Nations for some information. I'll do that.

Ann: Let's see what we can find in the library.

Teacher: Bill, will you summarize the plans we made?

Bill: Jack is going to check on films. Mary suggested that we watch the newspapers. We can all do that and bring clippings. Betty is going to call the newspaper office to see if there is someone nearby who has been on an exchange trip. Dick is going to write to the United Nations. Ann suggested that we check the library. We could all do that. Maybe Ann can schedule a time for us in the library.

Goal 6: Analyzes and evaluates particular traits, qualities, and skills that are essential for persons who serve in public office

A member of the community who holds public office may be asked to tell the class some of the things that the people who elected him expect him to do. The children may discuss and record some of the significant qualities the speaker mentions.

Pupils may visit a public official at his office and ask him questions regarding responsibilities he has to the people. They might examine his record in office.

Children may list characteristics and qualities desired for persons holding class or school office and record these findings. They may be encouraged to evaluate officers' performances during the school year on the basis of these criteria and make suggestions for improvement when conduct has been improper or responsibility shirked.

S O C I A L S T U D I E S

L E V E L E I G H T

EXPLANATIONS AND SOME SUGGESTED ACTIVITIES AND TECHNIQUES

Goal 1: Increases or expands his awareness and appreciation of the dignity and worth of man

Pupils may be encouraged to examine the following statements and to evaluate them in terms of their experiences.

1. Man loves that which satisfies him or fulfills a need.
2. Man's worth can be interpreted in some measure through the way he faces his circumstances.
3. The uniqueness of man's ability to adapt is proven by the way he develops within his environment.

Goal 2: Increases his understanding of the growth and development of a society and its culture

An understanding of the term society may need to be developed. It may be helpful to relate this to the child's "society as it is reflected in his family, school and tribal life. The "culture" of these various "societies" may then be described. By noting changes which have occurred in their lives and the lives of their people, pupils may be assisted in discovering that societies develop through continual change. Similar changes which have occurred in the society to which they are being introduced may be noted, also.

An effort may be made to formulate a definition of culture on the basis of an analysis of characteristics of Indian society and, insofar as it has meaning to the pupils, an examination of some of the characteristics of the non-Indian society with which the children are associating.

Goal 3: Reinforces his understanding of how societies, nations, and cultures undergo constant change

Pupils need to realize that the culture of America is made up of a number of sub-cultures, and that their culture is an important American sub-culture. In developing an understanding of the culture to which they are being introduced, they may be guided in pointing out ways in which a culture changes and how members of society overcome difficulties in order to survive and bring about change.

Reference may be made to changes taking place in an emerging nation, and to the difficulties members of that nation are encountering to bring about the change.

EXPLANATIONS AND SOME SUGGESTED ACTIVITIES AND TECHNIQUES

Goal 3: (Continued)

Changes being brought about by advances in science and technology may be noted.

Sample Language Implications Related to this Goal

Example: Summarizing a unit during a panel discussion.

Moderator: Under a democracy people help make decisions in their government and have human rights. How have people in the United States achieved these democratic principles?

Pupil 1: The people in the thirteen colonies were given laws to obey which they did not help make.

Pupil 2: What did they do about it?

Pupil 3: They fought the Revolutionary War.

Moderator: Did all people get their democratic rights after the government of the United States was established?

Pupil 1: No, but more and more have gotten their rights. Let's talk about just the right to vote.

Pupil 3: Who could vote at first?

Pupil 2: Just some of the men. The Constitution let the State governments decide who could vote. The states had different rules. Some let only men who owned land vote. Some had voters pay a special tax.

Moderator: Then there were people who couldn't vote. Who were they?

EXPLANATIONS AND SOME SUGGESTED ACTIVITIES AND TECHNIQUES

Goal 3: (Continued)

- Pupil 1: Men who didn't own land; men who were too poor to pay the tax; women; Indians; and slaves.
- Pupil 3: Gradually State laws were changed so men who were not landowners could vote. By 1828 most white men could vote.
- Pupil 1: When the Negro slaves were freed, did they get the right to vote?
- Pupil 2: Not right away. In 1870 an amendment was added to the Constitution saying that states could not keep a citizen from voting "on account of race, color or previous condition of servitude."
- Pupil 3: Women worked hard to get the right to vote. They had conventions. They marched in parades.
- Pupil 2: So some states gave women the right to vote. Then in 1919 an amendment was added to the Constitution giving women the right to vote.
- Moderator: How about Indians and their right to vote?
- Pupil 3: In June, 1924, Congress passed a law which made the Indians of the United States citizens of this country. State laws on voting then applied to Indians and still some of them could not vote.
- Moderator: Are there still problems about voting?
- Pupil 1: Some people think that since 18-year-olds can be drafted they should be allowed to vote.
- Pupil 2: Some states still have special requirements.

EXPLANATIONS AND SOME SUGGESTED ACTIVITIES AND TECHNIQUES

Goal 3: (Continued)

Pupil 3: Voters do not vote directly for the President of the United States. They vote for some other people who vote for the President. Some people think this should be changed.

Moderator: Let's study the pros and cons of these matters and discuss them later.

Goal 4: Compares the basic precepts of the laws of this country with traditional laws of the tribe or group, and considers the needs that resulted in the similarities and/or differences in these laws

An understanding of how and why laws are made may need to be developed. Pupils may examine tribal laws, and Federal and State laws to develop such an understanding. They may determine factors which make laws necessary.

Pupils may note some laws that have been abolished or modified and determine some of the reasons for the change.

They may be able to get information regarding some laws which were recently enacted and attempt to determine why they are necessary.

They may evaluate school regulations and decide why they are necessary. On the basis of a survey of school needs, they may be able to suggest other regulations which would improve the functioning of the school or provide better pupil protection.

Pupils should be encouraged to participate in student government.

A tribal police officer or a Bureau official from Law and Order may be invited to discuss the necessity for laws.

Goal 5: Achieves an understanding of the background and needs that led to the formation of the United Nations, and becomes familiar with the role it does and can play in the world

To assist children in acquiring some understanding of the events which led to the formation of the United Nations, the teacher may guide them in tracing some of the efforts that were made to solve world problems before World War II by the League of Nations and other groups.

EXPLANATIONS AND SOME SUGGESTED ACTIVITIES AND TECHNIQUES

Goal 5: (Continued)

Problems that existed after World War II may be noted, and efforts of the United Nations to help solve these problems may be pointed out. Questions presently before the United Nations may be studied.

Attention may be directed to problems resulting from the development of nuclear weapons.

Children may become acquainted with UNESCO.

Goal 6: Discusses with understanding some of the important responsibilities of the United States as a world power, its role in the United Nations, in Viet Nam, the North Atlantic defense pact

Pupils may list on a chart some different organizations; such as, the UN, NATO, and SEATO, in which the United States participates, and determine why these organizations were developed. Consideration may be given some of the tasks they have undertaken. Pupils may try to determine if they have been successful.

Pupils may discuss responsibilities men and nations have towards each other. Art work, posters, or murals may be prepared to show ways the United States has tried to help other countries with some of their problems.

The teacher may encourage pupils to read the newspapers for accounts of United States involvement in affairs around the world. Pupils may debate reasons for the United States becoming involved and try to determine the benefits and the disadvantages in specific situations.

Reports may be given on the historic background of some current events that are attracting the concern of several countries. Attitudes of other countries toward actions of the United States should be considered.

EXPLANATIONS AND SOME SUGGESTED ACTIVITIES AND TECHNIQUES

Goal 7: Studies and compares some major contemporary governments organized under constitutional and absolute forms, and learns the basic conditions that led to their establishment and to their successes or failures

Pupils will need to analyze basic principles of:

1. Democracy.
2. Dictatorship.

They may relate the basic principles of these two types of government to:

1. Communism.
2. Capitalism.
3. Socialism.
4. Fascism.

A committee may make a bulletin board of American symbols of democracy for the purpose of reviewing the significance of this collection:

1. Great Seal
2. Bald Eagle
3. Star Spangled Banner
4. Flags
5. Uncle Sam
6. Shrine of Democracy (4 faces)
7. Liberty Bell
8. Statue of Liberty
9. Independence Hall
10. Buildings and memorials in Washington, D.C.
11. Pledge of Allegiance
12. Flag raising on Mt. Suribachi.

On a large wall map, they may locate the capital of countries studied with a small flag or a little booklet in the shape of a capital building. Inside the booklet may be placed information which has been secured through research on the type of government they maintain.

EXPLANATIONS AND SOME SUGGESTED ACTIVITIES AND TECHNIQUES

Goal 8: Understands and exercises through appropriate outlets his rights and responsibilities in selecting officials by secret ballot

Pupils should be helped to understand the significance of the secret ballot and to discuss its value. They may be encouraged to conjecture what would happen in this country if the secret ballot were forbidden.

An effort may be made to determine how elections are held in a country ruled by a dictator.

The secret ballot may be used in class elections. Pupils may assume responsibility for conducting school elections by secret ballot.

Goal 9: Evaluates the purposes and effectiveness of the school's Student Council

The pupils should be encouraged to discuss and discover ways a student government can help the school.

Through discussion and interviews, they should determine whether the student government is meeting the needs of the pupils.

A questionnaire may be submitted to pupils to determine needs and wishes of the student body. Pupils and faculty members may be interviewed for suggestions for improvement of their student government. Recommendations, which are based on an evaluation of the questionnaires and interviews, may be made for revised or alternative regulations or procedures.

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M U S I C

L E V E L S E V E N

EXPLANATIONS AND SOME SUGGESTED ACTIVITIES AND TECHNIQUES

Goal 1: Develops discrimination in personal choice of music

In a pleasant atmosphere, the teacher may play recorded music to classes to instill happy associations with the music. If listening is purposeful, children may more likely develop an appreciation for various kinds of music.

Should pupils possess record players, they might be assisted in their purchases of recordings.

Goal 2: Sings ballads and selections from musicals

Pupils' interests should be heeded in choosing popular ballads and tunes to be sung.

A student accompaniment may be used for the singing of ballads. (Cooper (1), Leonhard (4), and Sur (7).

Sample Language Implications Related to this Goal

Situation: The teacher sings "'Way Up On Old Smokey" to the class, after which the following conversation takes place:

Teacher: This is a mountain song. The song says he was "courting" her or "sparking" her. Sometimes the word "wooing" is used. These words mean "dating" or "going together." But he is singing about how he lost his true love. Let's see if we can find this kind of song from other peoples. First, let's see how our song books are organized to help us.

Pupil 1: Singing Juniors has a table of contents in the front.

Teacher: What information does it give you?

Pupil 2: It groups the songs under headings. It gives song titles and page numbers.

EXPLANATIONS AND SOME SUGGESTED ACTIVITIES AND TECHNIQUES

Goal 2: (Continued)

Teacher: Is there a heading that might include songs about lost love?

Pupil 3: Here's a section headed "He Did A-Wooing Go." I'll check the songs in that group.

Pupil 4: In the table of contents for Music Sounds Afar there is a heading for each section of the book. There are not any song titles listed, but there are short explanations of what the sections are about.

Teacher: Is there a section on the kind of songs we're looking for?

Pupil 5: Yes, one section is "A Young Man's Fancy" and it says that "these are songs of love and courtship from America, Roumania, Ireland, Finland, China, Canada, Catalonia, and Scotland."

Teacher: Check under other sections, too, that deal with sorrow or loneliness for home.

Situation continues: In the two song books mentioned, there are the following songs about lost love. As the pupils find them they might be listed on the board along with the originating people.

Clementine	Creole
Oh, How the Moon Is Shining	Polish
"Way Up On Old Smokey	U. S. Mountain
Goodbye, My Dear Friend	German
Aloha Oe	Hawaiian
Lonely Is the Hogan	Navajo
Red River Valley	American
My Man John	English
Farewell, Dear Friend	Basque

EXPLANATIONS AND SOME SUGGESTED ACTIVITIES AND TECHNIQUES

Goal 2: (Continued)

Teacher: Let's look at the words of these songs to see if they express similar or different feelings, and listen to the music to decide which ones we'd like to learn. (The teacher may sing the songs to the class. A discussion may follow on similarities and differences of feeling expressed, and with students making choices as to the ones they want to learn.) /Pitts (6), and Wolfe (10).

Goal 3: Learns vocal independence by performing solos, or in duets, trios, and other small ensembles

Pupils should have opportunities to perform singly and in small groups before an audience. They may perform for their class, for another class, or at assembly programs. If pupils can be involved in community activities, they might also perform at some community program. /Cooper (1), Leonhard (4), and Sur (7).

Goal 4: Participates in social dancing

Pupils may be encouraged to learn social dances. Efforts in this area may be coordinated with activities planned by the guidance department. It is suggested that the teacher contact guidance staff members to determine if their teaching may be coordinated.

Goal 5: Takes part in group ensembles, based on common interest

Pupils who play instruments may be encouraged to form groups of their own. These groups should have opportunities to play at programs, assemblies, and dances.

This undertaking also may be effectively correlated with guidance department activities. /Selmer (9).

MUSIC

LEVEL EIGHT

EXPLANATIONS AND SOME SUGGESTED ACTIVITIES AND TECHNIQUES

Goal 1: Listens with the purpose of developing appreciation for music of greater variety of scope, including that of known composers performed by recognized artists

Attendance at concerts and other musical programs should be encouraged and sponsored where possible.

Arrangements may be made with the guidance staff to plan for children to listen to television programs such as Leonard Bernstein's program for children.

Opportunities may be provided for children to listen to recordings of the Standard Broadcasts.

Sample Language Implications Related to this Goal

Teacher: A good way to spend leisure time is to listen to music. Each person may choose the kind of music he likes. Let's listen to several kinds of music, so you'll know what there is to choose from. There are samples of many kinds of music in our school record-library.

Later, children bring samples of different kinds of music to play for the class. They comment after listening to their chosen records.

Pupil 1: These are "Songs of the Chippewa."*

Pupil 2: I liked those.

Pupil 3: Here is a folk ballad sung by Burl Ives.*

Pupil 4: I'd like to hear more songs sung by Burl Ives.

Pupil 5: That kind of song it too sad for me. I like something more lively.

EXPLANATIONS AND SOME SUGGESTED ACTIVITIES AND TECHNIQUES

Goal 1: (Continued)

Pupil 6: Let's see if this is lively enough for you. Here is "The Stars and Stripes Forever," by John Philip Sousa, played by the Goldman Band.*

Pupil 5: Will, it's all right for marching. I wouldn't choose it for leisure-time listening.

Pupil 7: I really like marches.

Pupil 8: Here's a jazz number. It's "Struttin' with Some Barbecue," played by Louis Armstrong's Hot Five.*

Pupil 5: Now, that's what I call music. I'd like to hear more jazz records.

Pupil 9: That's too noisy for me. I like something with words and a pretty melody.

Pupil 10: Here's "What a Beautiful Morning" by Richard Rodgers. It's from a musical play named "Oklahoma," sung by Howard Keel.

Pupil 11: Oh, I like that, too. Are there more songs from musical plays?

Teacher: You may check the record-library for others.

Pupil 12: Now, let's listen to "Winchester Cathedral" played by Lawrence Welk's Orchestra.

Pupil 13: Say, that's great.

Teacher: You can see that not everyone likes the same kind of music. _____, will you summarize for us by listing the kinds of music we heard today?

EXPLANATIONS AND SOME SUGGESTED ACTIVITIES AND TECHNIQUES

- Goal 1: (Continued) Student 14: We heard songs of an Indian tribe, a folk ballad, a march, a jazz number, a song from a musical play, and a pop song.
- Goal 2: Participates in general music classes General music may be taught as a core class.
- Goal 3: Performs in junior high choruses and operettas Use may be made of sacred and secular songs to develop unison, two, three, and four part singing. Operettas that interest the pupils and have some meaning for them should be selected and presented. /Cooper (1), Leonhard (5), and Sur (7).
- Goal 4: Participates musically in activities other than those organized within the curriculum, sharing, as appropriate, the music and dances of his own culture Pupils should be encouraged to participate in talent shows, social functions, church choirs, and civic music organizations. Opportunities for social, folk, square, modern, and interpretive dancing should be provided.
- Goal 5: Develops an interest in playing social instruments In cooperation with the guidance staff, the teacher may promote interest in guitars, harmonicas, ukeleles, accordions, and autoharps.
- Goal 6: Performs in junior high bands and orchestras A school band or orchestra may be organized to give pupils an opportunity to extend their experiences with music. /Selmer (8).

*These records are listed in Wolfe and others, Proudly We Sing, Follett Publishing Company, Chicago, 1961, pages 236-237.

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LANGUAGE ARTS - LISTENING

LEVEL SEVEN

EXPLANATIONS AND SOME SUGGESTED ACTIVITIES AND TECHNIQUES

Goal 1: Recognizes bias and propaganda in oral presentations

After an introduction to, and study of, bias and propaganda through reading, pupils may be guided in analyzing material to which they listen for bias and propaganda. The teacher might tape a biased speech for this purpose, and help pupils to analyze it and determine what they can accept and what they would reject.

Goal 2: Listens to prose, poetry, and music to sense the mood

Through listening to readings or recordings of works of such authors as Robert Frost, Carl Sandburg, Edgar Allen Poe, and Charles Dickens, pupils may be guided in determining what sets the mood in a particular poem or story.

Goal 3: Listens to evaluate other speakers as well as himself

Each pupil may make up a rating sheet. As he listens to tape recordings of reports given by himself or his classmates, he may use a predetermined set of words or symbols to fill in the rating sheet. He will rate such qualities as audibility, enunciation, expression, and logical sequence.

Goal 4: Extends the range of literature and music to which he can listen with pleasure

Pupils should listen to recordings of classical selections and to readings done by persons who read well.

L A N G U A G E A R T S - L I S T E N I N G

L E V E L E I G H T

EXPLANATIONS AND SOME SUGGESTED ACTIVITIES AND TECHNIQUES

Goal 1: Listens to
categorize ideas

At this level, pupils should be assisted in classifying information that they gain from reports given by classmates, from tape recordings, and from film narrations. They will need considerable help in organizing information into various categories in all areas of learning, in order to develop the skill to classify oral material.

Goal 2: Listens in order
to select significant
findings

Pupils may listen to descriptions of well-known people and guess who they are.

Goal 3: Evaluates points
of view given in oral
presentations

After hearing a speech, the pupil should be encouraged to explain in his own words what he believes the speaker's point of view to be and to explain his own point of view.

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L A N G U A G E A R T S - S P E A K I N G

L E V E L S E V E N

EXPLANATIONS AND SOME SUGGESTED ACTIVITIES AND TECHNIQUES

Goal 1: Is able to hear, react, and respond accurately to the sounds, stress, rhythm, and intonation of English

All of the techniques employed at previous levels to guide children in learning to speak English and in refining their English should be used where needed to lead pupils toward this accomplishment.

Although, at this level, the teaching of English, particularly as a second language, is not devoted exclusively to aural-oral work, it in no way signals the end, or even a marked decrease in the emphasis that should be placed on audio-lingual practice.

Exemplary grammatical sentences may become the basis for oral exercises in communication and in recombination. Pupils can be assisted in forming as many new sentences as possible by recombining the various structural elements of the original examples.

Stress should be placed on the communicative elements of speaking at this level. Pupils should be encouraged to take the initiative in conversing with classmates, with school personnel, and with visitors.

Dramatizations, skits, stunts, and "radio" and "television" broadcasting should be used to add variety to emphasis being placed on communication.

Goal 2: Masters the fundamental operations employed in forming plurals and past tense

On the basis of aural-oral practice for the purpose of strengthening understanding of the use of English plurals and past tense, or of eradicating errors which exist in their use, the teacher should provide many opportunities for children to relate informally, to read, and to write material using past tense and plurals. In helping children to master these forms, their understanding of the grammatical terms used in explanation will depend largely on their knowledge of the grammatical terms in their own language. Grammatical terms are not necessary, nor are "rules" of grammar. The "rule," if one is used, should be a clear explanation of what actually happens in the utterance.

EXPLANATIONS AND SOME SUGGESTED ACTIVITIES AND TECHNIQUES

Goal 3: Speaks
extemporaneously

Effort should be put forth to get children to make brief, extemporaneous speeches.

Role playing may be a good starting point. Arrangements may be made for children to make unprepared announcements to a class or at an assembly program. Debates may be used as a means of teaching children to speak extemporaneously. If a visitor arrives, a pupil might be called upon to welcome the guest, and to explain class work that is being done. Children may conduct a class meeting or be encouraged to participate in discussion during such a meeting.

When some skill has been developed in this area, pupils may prepare a list of three subjects with which they are familiar. The teacher could call upon a pupil to speak briefly about one of the topics.

In evaluating extemporaneous speaking, children might be taught that eye contact helps to emphasize points of interest and to establish interaction between speaker and listener; that gestures, as natural expressions, reinforce oral language; that posture and personal appearance add to or detract from what is spoken; and that voice use and control reflect speaking ability.

Sample Language Implications Related to this Goal

Situation: A group of pupils are formulating a chart on critical thinking to use as a guide in discussions of material they read. The pupils have searched in a number of different English texts, reading texts, and library books on reading for specific information on critical thinking. The teacher is sitting with a group which has a leader and a recorder.

Leader: We decided that critical thinking means to think of more than just the basic meaning of the words and to think about what the material you are reading has to do with you. What have you found out a person does if he is a critical thinker?

EXPLANATIONS AND SOME SUGGESTED ACTIVITIES AND TECHNIQUES

Goal 3: (Continued)

- Pupil 1: As a person starts to read he should think of the purpose he has for reading.
- Pupil 2: Yes, if he thinks of this, he'll plan whether to read carefully or rapidly.
- Pupil 3: Or just to skim for certain information.
- Pupil 4: He'll think about what parts of the information he can use.
- Pupil 5: We can decide whether we like a story or not.
- Pupil 6: We can decide whether or not we'd suggest it to someone else to read.
- Pupil 7: We should think about the author's purpose for writing the material.
- Pupil 8: We can think about the way the author said things--did he do a good job in describing so we can imagine the scene or the people's feelings?
- Pupil 1: We can decide whether or not we like the characters.
- Pupil 2: And compare ourselves or our own lives to the story characters.
- Pupil 3: We can try to remember things that have happened to us which will help us understand better the author's idea.
- Pupil 4: Maybe the story teaches a lesson that we can try to use in our own lives.

EXPLANATIONS AND SOME SUGGESTED ACTIVITIES AND TECHNIQUES

Goal 3: (Continued)

Pupil 5: In informational material we may need to check another book to see if information is correct.

Pupil 6: Yes, and sometimes we need to decide if what the author says is really true or is just his opinion.

Pupil 7: If we decide that it is opinion, we can either agree or disagree with his opinion.

Leader: These give us many ways to think critically and many kinds of things to say in discussion. Mary has been writing this information down. Tomorrow we'll decide just how to say it on the chart.

Goal 4: Continues to grow in poise, animation, and confidence

Pupils should be afforded means to participate in various formal and informal speaking activities; such as, debating, conducting meetings, carrying on informal class or social discussions. As children gain confidence in their ability to converse, to describe, to use the telephone, to give directions, to make introductions and announcements, and to conduct interviews--through being provided much practice in these areas--they may be guided in showing some animation as they speak.

If pupils have an opportunity to hear a professional speaker or actor, the teacher should guide them in noting how he spoke and in trying to imitate some of his techniques.

Recordings and tapes may be used for the same purpose. The pupils may tape their speeches and listen for evidence of animation or confidence that is reflected in their speaking.

Reading and presenting dialogues may be other means of encouraging livelier speech.

EXPLANATIONS AND SOME SUGGESTED ACTIVITIES AND TECHNIQUES

Goal 5: Extends skill in using the telephone

A brief unit on the various kinds of telephones and their uses might be developed to broaden pupils' understanding of the telephone, and to increase their skill in its use.

Pupils should continue to practice conventional and acceptable telephone conversations.

Goal 6: Continues to improve his skill in conversation

Pupils should practice conversations related to various situations. They should learn how to make apologies, excuses, refusals, requests, and invitations. The teacher should discuss with them the etiquette related to the above types of conversation.

Through class discussion the pupils may determine some of the characteristics of an interesting conversation. Responsibilities of the listener in a conversation should be considered.

Goal 7: Develops vocal qualities (pleasantness, naturalness, animation) appropriate to the situation

Children may role play or dramatize to practice vocal qualities needed in a particular situation. They may record their voices on tape and listen for distinctness and for pleasant and natural qualities.

The teacher might make a recording of examples of distinct and pleasant speech, and of indistinct speech, for the children to study the difference.

L A N G U A G E A R T S - S P E A K I N G

L E V E L E I G H T

EXPLANATIONS AND SOME SUGGESTED ACTIVITIES AND TECHNIQUES

Goal 1: Is able to hear, react, and respond accurately to the sounds, stress, rhythm, and intonation of English

Although at this level pupils are much involved in the writing and reading of English, it in no way signals the end of, or even a marked decrease in, the emphasis that should be placed on aural-oral work.

The teacher should continue to use exemplary grammatical sentences as a basis for oral communication and recombination. Pupils should be guided in forming as many new sentences as possible by recombining the various structural elements of the original examples.

Although it will be necessary to adapt whatever materials are used to the particular needs of the pupils, the teacher should examine available material for all possible opportunities for oral practice. Aural-oral competency achieved at previous levels can be strengthened and increased by so doing.

When pupils have been properly trained, the use of printed materials offers them possibilities for considerably more diversified and sophisticated forms of listening and speaking practice.

At this level pupils should have many opportunities to listen to recordings of good examples of English speech. They should frequently tape their conversations, reports, and speeches, and, with teacher assistance, evaluate them for accuracy of sound, intonation, rhythm, and stress.

Sample Language Implications Related to this Goal

Situation: Children are using a discussion to present discussion techniques.

Leader: We need to talk about how to have a discussion. What suggestions do you have?

Pupil 1: Each one in the group should contribute to the discussion.

EXPLANATIONS AND SOME SUGGESTED ACTIVITIES AND TECHNIQUES

Goal 1: (Continued)

Pupil 2: One or two people should not monopolize the discussion.

Pupil 3: Some should not try to get out of talking.

Leader: Those are good suggestions.

Pupil 4: The children having the discussion should listen to each other.

Leader: How can speakers make others want to listen?

Pupil 5: They should speak expressively.

Pupil 2: They should speak loudly and clearly.

Pupil 4: They should sound as if they believe what they say or as if they believe it is important.

Leader: Yes, others will want to listen if we speak that way.

Pupil 1: It helps to sit properly and look at your listeners.

Pupil 3: We will speak more clearly if we keep our hands away from our faces.

Leader: Are there some special courtesies to observe in discussions?

Pupil 5: One person should not interrupt another who is talking.

Pupil 4: If two people happen to start speaking at the same time, one should say "Excuse me," and let the other go ahead.

EXPLANATIONS AND SOME SUGGESTED ACTIVITIES AND TECHNIQUES

Goal 1: (Continued)

Pupil 6: If you disagree with what someone else says, start your remarks with "In my opinion" or "It seems to me" or "I believe that."

Pupil 1: Compliment others on their ideas.

Pupil 2: The leader should thank the participants.

Leader: I believe all these ideas are important to a good discussion. Thank you for your suggestions.

Others: Thank you.

Goal 2: Masters the fundamental operations employed in forming plurals and past tense

For those pupils who are still having difficulty with plurals and past tense, time should be set aside for oral practice, for reading practice, and for written reinforcement of correct use of plurals, and of past tense of verbs. Rather than teaching by "rule," it may prove more effective if the teacher gives a clear explanation of what really happens in the utterance when changes are made to indicate past tense or plural number.

Goal 3: Speaks extemporaneously

Good speeches reflect the speaker's purpose, accuracy, responsibility, clarity, straight thinking, integrity, and sincerity.

In terms of skill developed at previous levels in reporting, and at the seventh level in speaking extemporaneously, pupils should be guided in evaluating talks they make on the basis of purpose, accuracy, clarity, and sincerity.

Continued practice should be provided in speaking extemporaneously through role playing, making announcements, debating, showing visitors around the classroom or the school, and participating in class meetings.

EXPLANATIONS AND SOME SUGGESTED ACTIVITIES AND TECHNIQUES

Goal 3: (Continued)

In practicing extemporaneous speaking, pupils should learn that the effectiveness of their speech will depend upon getting attention; emphasizing the importance of the subject; presenting pertinent points based on reliable, factual evidence; and drawing legitimate conclusions.

Children may play a game "The Last Word." A pupil begins speaking on some topic. Shortly, a group leader says "Stop" and calls upon another pupil to pick up the thought and continue the talk.

Goal 4: Continues to grow in poise, animation, and confidence

Rapport established in the classroom will stimulate the development of poise, animation, and confidence in the use of English. Lack of rapport will thwart their growth. Children should feel free to speak without fear of being ridiculed or fear of making an error. At this age, pupils are very conscious of peer approval, and may be hesitant to make an effort to appear animated in making a speech for fear of being derided by their peers. It is the teacher's duty to develop an atmosphere in which speech improvement can flourish.

To gain confidence in their speaking ability and to refine their speaking skills, pupils should share information they have acquired in any subject field with classmates, with other classes, and in assembly programs.

Participating in a talent show, acting as master of ceremonies at a party or an assembly program, serving as a host at some school function, delivering oral messages, and introducing friends and visitors are activities in which children should engage often.

Goal 5: Extends skill in using the telephone

Frequent opportunities should be provided for pupils to use the telephone to make a friendly call or a business call. The teacher may make previous arrangements with persons to be called so that they may cooperate in helping the pupils achieve their goals.

EXPLANATIONS AND SOME SUGGESTED ACTIVITIES AND TECHNIQUES

Goal 6: Continues to improve his skill in conversation

The teacher should provide a variety of situations for the practical use of conversation. When pupils are taken on field trips, they should be encouraged to initiate conversations with their guides or hosts. Arrangements may be made with other staff members, with the school nurse, the doctor, or the dentist, to assist in involving pupils in conversation. Social gatherings should be planned with one purpose being to provide a situation for conversing.

Goal 7: Develops vocal qualities (pleasantness, naturalness, animation) appropriate to the situation

Through discussion, children should be led to draw conclusions regarding the necessity and importance of speaking distinctly and pleasantly, and of gearing speech to a particular situation.

Continued use of dramatization and dialogue is suggested as an aid to developing more skill in speaking.

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L A N G U A G E A R T S - R E A D I N G

L E V E L S E V E N

EXPLANATIONS AND SOME SUGGESTED ACTIVITIES AND TECHNIQUES

Goal 1: Continues to improve his skill in reading for different purposes

A basic aim of reading instruction is to help pupils understand what they read and study. Increased proficiency in reading may be attained best by practice. Study skills may be developed in connection with all activities of the school day.

When pupils are attempting to grasp a new fact or process, they should be helped in acquiring the vocabulary which will give it meaning. Teacher explanations, films, filmstrips, pictures, and other reference materials may be used to establish understanding.

Pupils should develop the habit of rereading passages when the meaning is not clear to them.

Goal 2: Increases his reading rate

Pupils should be aware of their reading rate. Teachers should continue to guide them in developing a rate suitable to the type of material being read and to the purpose for which it is read. However, emphasis should be placed upon comprehension, not speed.

Four suggestions are made for encouraging pupils capable of increasing their reading rate:

1. Build a desire to read by providing materials based on the interests and abilities of the pupils.
2. Encourage each pupil to read as much as he can.
3. Discuss the advantages of rapid reading of some materials.
4. Help the pupils determine how rapidly they are able to read and interest them in undertaking a program to improve their reading and increase their reading rate.

EXPLANATIONS AND SOME SUGGESTED ACTIVITIES AND TECHNIQUES

Goal 2: (Continued)

Some devices teachers may use to increase reading rate are:

1. Reading aloud to the pupil. (The tempo may gradually be increased.)
2. Reading aloud to the group; pupils follow with markers.
3. Teaching pupils techniques of skimming and finding main points.
4. Using timed reading drills.
5. Helping children overcome lip reading
6. Using controlled reading devices such as the tachistoscope or controlled reader.

Goal 3: Reads materials independently at his free reading level

The pupil should be encouraged to do much independent reading at his free reading level. A variety of reading material should be available in each classroom. Extensive use should be made of the materials center.

Goal 4: Reads materials at his instructional level

The teacher should attempt to ascertain the instructional reading level of the pupils. The following method may be helpful in finding the pupil's instructional reading level, as well as his other reading levels:

1. Needed materials
Readers, well-graded, with interesting stories, free from specialized vocabulary
2. Technique
Choose several paragraphs at suitable grade levels; beginning with lowest level selected, have a pupil read orally; ask a few fact questions to check comprehension; ask a thought question to determine the pupil's ability to draw inferences.

EXPLANATIONS AND SOME SUGGESTED ACTIVITIES AND TECHNIQUES

Goal 4: (Continued)

3. Points to notice
 - a. Free Reading Level: 90% comprehension; 99 of every 100 running words correctly pronounced; natural phrasing; pupil relaxed
 - b. Instructional Reading Level: 75% comprehension; 95 of every 100 running words correctly pronounced; natural phrasing; pupil relaxed
 - c. Frustration Reading Level: 50% or less comprehension; 10 or more words mispronounced of every 100 running words; phrasing unnatural and uncertain; pupil tense, possible finger pointing

Another reading level is the pupil's Capacity Level. This applies when material is read to him. It is the highest level of material he can comprehend when it is read to him. A pupil's Capacity Level can be evaluated by watching for his control over language-fact relationships when material is read to him.

4.a: Increases reading vocabulary and understanding of idiomatic phrases and colloquialisms

The teacher should be alert to helping each pupil develop a vocabulary which is broad, specific, accurate, and colorful, and related to his educational needs. To develop an interest in vocabulary building, a pupil may estimate his vocabulary by the following procedure:

1. Select at random one page from each hundred pages in the dictionary; read down the list of words and count those he actually uses in speaking, in writing, or in both.
2. Add the numbers from the different pages; then multiply the sum by one hundred. The product will be a rough estimate of the number of words in his active vocabulary.
3. On each page selected, also count the additional words which he does not use himself, but which he understands in reading or listening.

EXPLANATIONS AND SOME SUGGESTED ACTIVITIES AND TECHNIQUES

Goal 4: (Continued)

Multiply the sum of these words by one hundred to arrive at his pas-
sive vocabulary.

4. Now add the words in his active vocabulary to the number in his pas-
sive vocabulary to arrive at a rough estimate of his total
vocabulary.

Some ways pupils may learn new words are by:

1. Listening to the radio
2. Reading material which is expressive and attractive
3. Seeing movies and television
4. Talking with other people
5. Reading newspapers
6. Reading easy, scientific material
7. Using the dictionary
8. Playing word games
9. Learning common prefixes, suffixes, synonyms and antonyms
10. Identifying some ways that language changes and expands.

As idiomatic phrases or colloquialisms are encountered in reading material, they should be explained to children. Independent reading activities may be related to interpretation of idiomatic phrases.

4.b: Recognizes
synonyms and antonyms

Children should learn that synonyms are words which express essentially the same idea but often have shades of difference in meaning. They should note that dictionaries use synonyms in defining words.

The following suggestion for preparation of exercises may be helpful:

From a reading selection, write on the chalkboard ten difficult words. In different order, write a synonym for each of these words. Let pupils match words and synonyms.

EXPLANATIONS AND SOME SUGGESTED ACTIVITIES AND TECHNIQUES

Goal 4: (Continued)

Write on the chalkboard sentences from a reading selection containing groups of words for which synonyms can be supplied. Underline the groups of words. For each underlined expression, pupils may choose an appropriate synonym and rewrite the sentences.

Example: Little by little he crept up the hill.
Gradually he crept up the hill.

This type of matching also may be used with antonyms. Children may discover that dictionaries sometimes give antonyms as well as synonyms in defining words.

4.c: Improves in ability to read critically

It is suggested that the teacher refer to basic reader manuals for exercise for building comprehension.

Skills developed at previous levels in test taking may be reviewed and extended.

Goal 5: Maintains, reinforces, and improves skill in locating, organizing, and studying

The pupil should know how to use the library in his school. Since libraries in Bureau schools may vary from classroom libraries to materials centers, accomplishments will be regulated by local facilities. In some schools the pattern will be very elementary; in others it may include:

An elementary understanding of the Dewey Decimal System.

A working knowledge of the arrangement of books on the library shelves according to the Dewey Decimal System.

The use of the card catalog.

The use of the drawer labels in the card catalog drawers.

The use of the guide cards in the card catalog drawers.

Practice in finding books.

By title.

By author.

EXPLANATIONS AND SOME SUGGESTED ACTIVITIES AND TECHNIQUES

Goal 5: (Continued)

By subject.

By using cross references.

Working out a skit on the arrangement of books and the Dewey Decimal System and being a member of a library club are activities in which children may participate.

L A N G U A G E A R T S - R E A D I N G

L E V E L E I G H T

EXPLANATIONS AND SOME SUGGESTED ACTIVITIES AND TECHNIQUES

Goal 1: Reads materials independently at his free reading level

The pupil should be encouraged to do much independent reading at his free reading level. Much easy reading material should be available to him in his classroom. Extensive use should be made of the materials center.

Goal 2: Reads materials at his instructional level

The teacher may refer to a similar goal at Level Seven for a method of identifying the various reading levels of the pupil.

2.a: Reads many new words and idiomatic phrases with understanding

At this level pupils may be introduced to picturesque language, and to words and phrases which derive meaning from literary reference. They should continue to add words they need to their reading vocabulary and to gain more familiarity with idiomatic phrases.

2.b: Recognizes homonyms

As a need arises for pupils to recognize homonyms or to use them, they may be introduced to them and guided in understanding this word classification. To teach them in isolation or without need is to add confusion to the already complicated task of learning English.

2.c: Reads analytically, critically, and creatively on his own level

The teacher may refer to manuals of basic readers for suggestions in developing skill in analytical and critical reading and in cultivating an appreciation for prose and verse.

Goal 3: Improves independent study skills

The purpose behind this accomplishment is the extension and refinement of study skills which were introduced at previous levels. It is suggested that the teacher refer to reading goals from Level Four through Level Seven for review purposes.

3.a: Reviews and extends study of maps, tables, charts, cartoons, and illustrations

3.b: Extends skill in locating and organizing material

As local facilities permit, skill in using the library should be extended. The pupil should gain independence in his ability to locate needed information. He should be given assignments which require him to locate information independently, but should have assistance from the teacher and librarian in correcting faults and improving skills.

EXPLANATIONS AND SOME SUGGESTED ACTIVITIES AND TECHNIQUES

3.c: Extends ability
in research

In connection with other subject areas, such as health, guidance, science, and social studies, pupils may be directed into individual research studies which will involve reading and composition.

Goal 4: Participates in
the operation of his own
school library

To the extent possible, pupils interested in working in the school library should have an opportunity to do so. Having a library work assignment may be a means of developing an interest in reading for some who are disinterested, or may be therapy for a disturbed child.

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L A N G U A G E A R T S - W R I T I N G

L E V E L S E V E N

EXPLANATIONS AND SOME SUGGESTED ACTIVITIES AND TECHNIQUES

Goal 1: Maintains and enhances the use of writing for various purposes

The pupil should strive for increased proficiency in both manuscript and cursive writing. He may make charts and diagrams of information to be presented in various subject areas. He may make posters to advertise classroom or school activities.

Goal 2: Writes clear and correct sentences in various methods of expression

The pupil may write personal experiences and simple verse. He may collaborate with others in writing group verse and dramatizations. He may report for the school paper.

Pupils may do creative writing using sentences with a variety of connecting words. They may write personal experiences, descriptions, feature articles, and editorials. The use of direct quotations in stories and poems should be encouraged.

Children should be guided in recognizing the difference between sentences and phrases. Teaching pupils to use dictionaries and handbooks to settle their uncertainties is an important phase of learning. The habit of consulting recent and valid sources of information may help keep pupils in touch with English as a living, changing language.

Inductive instruction in grammar will lend strength to the skill of noting true sentence meaning. Phrasing in oral reading and determining relationships of sentence parts (subjects, predicates, phrases, and clauses) may prove to be an aid in gaining this understanding. Materials on the child's level and of his own making should be used for such an analysis.

Goal 3: Extends ability to unite well-constructed paragraphs

Pupils should have much practice in writing paragraphs using topic sentences, details and examples, summary sentences, and variety in sentence beginnings and endings.

EXPLANATIONS AND SOME SUGGESTED ACTIVITIES AND TECHNIQUES

Goal 4: Extends skill in organizing papers

The teacher should assist pupils in setting standards to be followed in writing reports. At this level pupils may be introduced to adding a brief table of contents and bibliography to a report. This might be a group activity in which several individual reports on a particular subject are compiled and a table of contents and bibliography added.

Goal 5: Writes interesting business and friendly letters correctly

The scope of business and friendly letter writing should be broadened for pupils at this level.

Goal 6: Uses the mechanics of written expression with ease

The teacher may help pupils recognize nouns and pronouns, singular and plural, and guide them in using correct number in their written and oral English. Should the teacher be familiar with a contrastive analysis of English and the pupils' first language, he might show pupils simple comparisons and contrasts of the two grammars.

Pupils at this level should:

1. Recognize and use verbs and adjectives.
2. Recognize and use subjects and predicates.
3. Recognize the importance of correct usage of verbs in effective expression.
4. Recognize and use direct objects.
5. Continue to improve in spelling ability.
6. Show growth in the use and understanding of words.
7. Continue to extend dictionary skills.
8. Recognize and use synonyms and antonyms.
9. Show growth in ability to follow specific directions.
10. Extend skill in using reference materials.

LANGUAGE ARTS - WRITING

LEVEL EIGHT

EXPLANATIONS AND SOME SUGGESTED ACTIVITIES AND TECHNIQUES

Goal 1: Maintains and enhances the use of writing for various purposes

Pupils should develop a feeling of responsibility for their own improvement in writing in all subject areas.

They need guidance in assuming responsibility for refining the organization of their ideas and converting them into acceptable written form. If many occasions are provided for pupils to exercise and improve these skills, they should gain independence in selection of terms and modifiers which will reflect precision and add interest to their compositions.

Goal 2: Writes clear and correct sentences in various methods of expression

Pupils' written work should show growth in word usage and sentence structure. As the pupil meets new words in his reading of study or leisure-time material, he should attempt to add to his vocabulary words which will be helpful to him in the activities he is pursuing.

Children may be assisted in recognizing and using declarative, imperative, and interrogative sentences. Pupils should become aware that they have been using these kinds of sentences ever since they began speaking English sentences. They may develop some understanding of the various types if meaningful practice in speaking and writing the different kinds of sentences is provided. Pupils may analyze their written work to determine the kinds of sentences they have used.

Goal 3: Extends ability to write well-constructed paragraphs

Activities engaged in should extend skills introduced previously. The pupil's growth should be demonstrated by his ability to develop paragraphs from outlines. Pupils should be provided continued practice in developing paragraphs from outlines in accordance with demonstrated ability.

Goal 4: Develops more skill in summarizing and outlining material

Previously, the child may have participated in making summaries with his group. At this level, he should use his skill to make his own summary of the material he reads. This may be done orally for additional speech practice.

EXPLANATIONS AND SOME SUGGESTED ACTIVITIES AND TECHNIQUES

Goal 4: (Continued)

The pupil should acquire proficiency in outlining by using this skill in preparing reports; recording minutes of a meeting; taking notes on an assembly talk, radio speech, newspaper article, or book. The group may discuss outlines made and suggest ways of improving them.

The teacher may make skeleton outlines of main points and have the pupils fill in a few supporting details.

Goal 5: Uses the mechanics of written expression with ease

Children may learn when to use and (similar ideas) and when to use but (contrasting ideas) in writing compound sentences.

They may analyze how the meanings of sentences are changed by using a variety of introductory words: when, then, after, before, etc.

Diagrams may be used to illustrate the importance of the connective words.

Pupils should edit their own work and that of others. They should demonstrate an attitude of responsibility for correct spelling in all phases of written work. Independent use of the dictionary should be stressed.

Children should also recognize and use subjects; predicates; indirect objects; phrases; simple, complex, and compound sentences.

Ability in using punctuation skills should be extended through:

1. Using the comma before the conjunction in a long compound sentence.
2. Using a semicolon in compound sentences which have no conjunction.
3. Using the apostrophe to write possessive singulars and plurals correctly.

Pupils need opportunities to use possessives in meaningful situations. Their written work may be used as a source of material for lessons on

EXPLANATIONS AND SOME SUGGESTED ACTIVITIES AND TECHNIQUES

Goal 5: (Continued)

developing an understanding of the correct use of possessives. Pattern practice may be provided for those having difficulty in usage.

The pupil might be able to find jokes on his level which depend on homonyms for humor. The class might make a scrapbook of such jokes or of simple crossword puzzles containing homonyms. A group contest in listing homonyms encountered might be held. A chart of homonyms which are used might be made.

Goal 6: Uses more descriptive words to enhance personal writing

(See the related goal in Level Seven.) Pupils may contribute editorials and articles for the school paper. They may write brief stories of imaginary characters with settings in American history. They may exchange letters with eighth graders in other schools, or design greeting cards and write original greetings. Some may write original endings to incomplete stories read by the teacher or other pupils.

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L A N G U A G E A R T S - L I T E R A T U R E

L E V E L S E V E N

EXPLANATIONS AND SOME SUGGESTED ACTIVITIES AND TECHNIQUES

Goal 1: Recognizes literary types - fiction, non-fiction, essay, biography, narrative, poetry, and drama

Pupils telling what they like about stories, books, poems, and plays they have read may encourage other pupils to read many of them; or it may suggest telling stories they have enjoyed reading. It also will give the teacher helpful clues on reading material needed.

Field trips should be taken to public libraries when they are within reach.

Teachers might read the first part of a story, and when interest has been built up, stop and suggest that those who are interested may finish reading it at their leisure.

The pupils should be encouraged to read appealing selections from various literary types. The teacher should provide some of these for the reading corner in the classroom.

Pupils might write their own autobiography.

Historical poems afford a knowledge of history. Pupils may be encouraged to find several such poems and share them with the group.

Goal 2: Grows in ability to interpret picturesque and idiomatic language which may occur as he reads and listens to folk ballads, tall tales, regional literature

Pupils may make up their own tall tales. On occasions, they may draw maps and show locations where the situation described by the story occurred. Recordings of American folk ballads may be used. A guest may be invited to class to sing ballads, or the music teacher may be requested to teach ballads to the pupils.

Goal 3: Begins to develop taste in literature and interest in authors and illustrators

Each pupil could select an author to study, and place information about this person in a booklet. The booklet might include a brief biographical sketch, illustrations, resumés of books by this author, and so on. Library research should be used to locate as much information as possible.

EXPLANATIONS AND SOME SUGGESTED ACTIVITIES AND TECHNIQUES

Goal 3: (Continued)

Children can easily learn the names of authors, if they are heard often enough. This should not become a "chore" or an unpleasant assignment. Pupils should be helped to understand that the names of authors and books enjoyed are learned just as the names of other people who are interesting are learned. A good standard for oral reading should be set and some of the best literature should be read to pupils.

Goal 4: Begins to gain an understanding of human and cultural relationships through his readings of biography, historical fiction, frontier stories

Pupils should be encouraged to read about heroes in history whose influence is still felt. They may dramatize events of significance from literary reading; illustrate characters in frontier stories; and read inter-group fiction to develop understanding and constructive attitudes toward other cultures.

The teacher should read to pupils frequently from books that help them understand people of other lands; e.g., "Young Fu of the Upper Yangtse" or "Little Pear." Pupils may write the biographies of some of their favorite characters.

Goal 5: Continues to develop an appreciation of the stories, poems, ballads, humorous poetry, that appeal to this age group

A collection of favorite poems could be compiled by a pupil or a committee. The collection could include original poetry by pupils of the group. Appropriate illustrations and decorations could be added to make the book attractive.

The teacher should identify topics that are of interest to his pupils. Full length movie features may be shown after reviewing certain books with pupils; for example:

Old Yeller
Robinson Crusoe
Tom Sawyer.

EXPLANATIONS AND SOME SUGGESTED ACTIVITIES AND TECHNIQUES

Goal 6: Develops a deeper appreciation of the Indian's contributions to language and literature

Practically all Indian children can tell legends that have been handed down in their families from generation to generation. Both similarities and differences between these and the legends of other cultures may be noted by pupils, for developing increasing interest, enjoyment, and respect for all cultures.

Pupils may compile a list of place names which originated with Indians and are used today. Films related to the contributions of the American Indian may be shown. Indian mythology, as well as Greek and Norse mythology should be used as sources for the story of "The Creation." The teacher may explain the importance of Greek and Norse mythology to American life and show similarities to American Indian myths.

LANGUAGE ARTS - LITERATURE

LEVEL EIGHT

EXPLANATIONS AND SOME SUGGESTED ACTIVITIES AND TECHNIQUES

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EXPLANATIONS AND SOME SUGGESTED ACTIVITIES AND TECHNIQUES

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Tom Sawyer .

EXPLANATIONS AND SOME SUGGESTED ACTIVITIES AND TECHNIQUES

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A R T

L E V E L S E V E N

EXPLANATIONS AND SOME SUGGESTED ACTIVITIES AND TECHNIQUES

Goal 1: Uses art in a variety of curricular activities

The boarding school teacher should avail himself of the many opportunities which will present themselves for cooperation with the guidance department in making posters, charts, and decorations for various school activities. In both day and boarding schools, it may be possible to assist with community activities and to guide children in using their skill and talent in art to make decorations or posters for community endeavors.

Goal 2: Independently explores experiences in arts and crafts

The child now should have had experience with most of the basic media. Activities at this level should be creative and exploratory. The teacher should assume a discreet role in directing the creativity of his pupils.
/Reed (16).

Goal 3: Appreciates the contribution of art to culture

Committees might work on projects to demonstrate various ways in which art has contributed to their native culture, or ways in which art is used in their native culture. It would be helpful to involve members of the community, as much as possible, in these projects. A community program might be presented as an outgrowth of these projects.

Sample Language Implications Related to this Goal

Teacher: What are some things all peoples have as a part of their ways of living?

Pupils: Homes, food, clothes.

Teacher: Let's work with just those three. Let's find out how these are affected by people's desires for beauty. For right now, let's study these just in Indian life and in general American life.

(Pupils divide into six committees and do research. The committees dealing with Indian life draw charts to illustrate findings. The committees dealing with general American life cut up magazines and paste pictures to make

EXPLANATIONS AND SOME SUGGESTED ACTIVITIES AND TECHNIQUES

Goal 3: (Continued)

charts. Each committee presents its findings to the rest of the class in a panel discussion. For example, the panel discussion of the committee whose topic is "Art and Indian clothing" might go something as follows. As panel members talk they may show their illustrations.)

Moderator: What was the basic dress of Indian women?

Pupil 1: I found that Ojibwa women wore a red, dark blue, or black broadcloth, loose dress with straps over the shoulder.

Pupil 2: Seneca women wore a wrap-around skirt of broadcloth or calico, with a long, loose, long-sleeved tunic over the skirt.

Pupil 3: A Sioux dress was made of two elk hides sewed together so that large, cape-like sleeves were formed.

Moderator: How were these basic costumes decorated to make them more beautiful?

Pupil 1: Beads were embroidered on the yoke and straps. Later on, silk ribbon applique was used.

Pupil 2: Bead embroidery and silk ribbon applique were used by Seneca women, too, but they were placed around the bottom of the skirt.

Pupil 3: The Sioux women did elaborate beadwork on the yoke and cape-like sleeves of their costumes.

Moderator: Tell us about the designs used.

Pupil 1: The Ojibwa designs were geometric with much use of straight lines and zigzag. Later, after they had seen French materials and laces, they used floral designs.

EXPLANATIONS AND SOME SUGGESTED ACTIVITIES AND TECHNIQUES

Goal 3: (Continued)

Pupil 2: The design in the border of the Seneca women's skirts usually consisted of a sky dome and a heavenly tree growing from the top of the sun with a corner design of a tree of light growing out of the earth.

Pupil 3: Sioux beadwork designs are made up of straight lines in parallel formation, crossing each other, or meeting at different angles. These lines form the box, the rectangle, the dragonfly, the three-pronged fork, and the horse track design.

(Other committees present their findings in a similar manner.)

/Lyford (10), (11), and (12).

Goal 4: Has some understanding of the theory of color .

Pupils should continue to experiment individually in applying principles related to the color wheel. They should be encouraged to experiment in mixing their own colors. /Birren (2).

Goal 5: Extends ability to evaluate his own art in terms of realism, detail, and relationship

The child may keep a personal folder of his art efforts. He might select his best efforts and tell why he believes they are better. There should be many samples available that illustrate to children the principles of art - balance, variation, unity, contrast, subordination, emphasis, rhythm, dominance, harmony, and proportion. /Anderson (1).

The child needs to begin to understand that an art effort need not demonstrate all these principles, nor does it need to be flawless in those it does demonstrate to bring enjoyment and satisfaction to the viewer. /Anderson (1).

A R T

L E V E L E I G H T

EXPLANATIONS AND SOME SUGGESTED ACTIVITIES AND TECHNIQUES

Goal 1: Uses art in a variety of curricular activities

In mathematics, in English, in science, and in health, children can effectively integrate art. In many out-of-school activities, including family-style dining, regular dining room procedures, dormitory and recreational endeavors, children should be able to contribute their artistic skill and understanding.

Sample Language Implications Related to this Goal

Students are planning art work to use on a bulletin board in social studies. They are trying to decide the medium to use.

Pupil 1: Are we going to make a mural or a series of individual drawings?

Pupil 2: If we make a large mural, I believe it should be in chalk or tempera paint. These work up fast and can be used for producing sizable pictures.

Pupil 3: We could do a series of individual pictures. What media do you think we might use then?

Pupil 4: Well, colored pencils are easy for me.

Pupil 5: I like the effects produced by water color better than by colored pencils.

Pupil 6: It might be interesting not to use color this time - instead, use charcoal or India ink.

Pupil 7: Say, let's try charcoal for a change.

Group decides on charcoal and then plans what each pupil will draw.

EXPLANATIONS AND SOME SUGGESTED ACTIVITIES AND TECHNIQUES

Goal 2: Continues to expand experiences in arts and crafts

On the basis of previous experiences, pupils should continue to expand their understanding and skill in the use of various media. Teacher guidance should continue to be limited and discreet, and independence should be encouraged. /Bjoland (3), Peter (11), Reed (13), and (7).

Goal 3: Increases understanding of the theory of color

Children should be encouraged to apply their knowledge of the theory of color in their art work. Interest might be stimulated through preparing materials for local exhibits. /Birren (2).

Goal 4: Refines self-evaluation of his art efforts

Each pupil may keep a folder of his best art work. The teacher should assist the pupil, when necessary, in evaluating his selections. Evaluation should be in terms of:

1. Balance
2. Variation
3. Unity
4. Contrast
5. Subordination
6. Emphasis
7. Rhythm
8. Dominance
9. Harmony
10. Proportion

Goal 5: Deepens appreciation of the contribution of art to culture

With the assistance of another class, groups may seek ways in which art has contributed to a particular culture. Reports on findings might be given to classes involved and also to other classes having similar objectives.

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H E A L T H A N D P H Y S I C A L F I T N E S S

L E V E L S E V E N

EXPLANATIONS AND SOME SUGGESTED ACTIVITIES AND TECHNIQUES

Goal 1: Knows the importance of caring properly for hair, nails, teeth, and skin and how this care is related to good grooming and good health

Some attention should be given to the following:

1. What is proper care of the hair?
2. What are some of the diseases of the gums?
3. What good practices should be followed in caring for the skin?
4. What is acne and how is it prevented or cured?

Goal 2: Understands the relationship of health to athletic and other recreational activities

The coach, nurse, or public health consultant may be invited to talk on this subject. Charts and articles from papers and magazines about the importance of good health to success in physical development may be utilized.

Goal 3: Knows the relationship of rest and good food in the cure of tuberculosis

Visual aids such as filmstrips, charts, X-rays, and motion pictures may be used for review and reinforcement of concepts developed at previous levels.

Goal 4: Understands the need for a yearly physical examination

Pupils should learn that it is economically sound to have regular examinations instead of waiting until ill to consult a doctor.

Goal 5: Visits a dentist twice a year

The teacher should stress the importance of good oral hygiene. The pupil should have acquired the habit of brushing his teeth at least once a day.

The class may study the structure of the tooth and how decay begins. Charts and films may be used to broaden understanding.

Goal 6: Has a regular eye check

The teacher may use the Snellen or a similar test of acuity of vision. In cases where there are signs of eye strain or defects, health officials should be consulted.

Goal 7: Understands the physical changes of puberty

Within the framework of local school policy, and in the proper setting, informed adults - teachers-guidance, school nurses, doctors, and social workers - may accomplish this objective with boys and girls separately.

EXPLANATIONS AND SOME SUGGESTED ACTIVITIES AND TECHNIQUES

Goal 7: (Continued)

Films, lectures, and discussions may develop a deeper understanding of the nature of physical change at puberty, provided such techniques are used in the proper setting and by informed adults.

Goal 8: Knows what should go into a first-aid kit

Pupils should become acquainted with a first-aid kit. The teacher should explain how each item should be used. Pupils should examine and discuss contents. The kit should contain the following items:

1. Band-aids
2. 3-inch sterile gauze squares
3. Assorted sterile bandage compresses
4. Sterile absorbent cotton
5. Triangular bandages
6. 36-inch sterile squares
7. A tube of good burn ointment
8. Mild iodine
9. Inelastic tourniquet
10. Scissors and forceps
11. One- and two-inch roller bandages
12. Roll of 1½-inch adhesive tape
13. Paper cups
14. Wire or thin board splints
15. Sterile castor oil or mineral oil for use in the eyes
16. Aromatic spirits of ammonia
17. A bottle of merthiolate.

The teacher should have pupils work in groups to practice simple methods of bandaging. Pupils may give demonstrations in assembly programs showing the correct procedures to use in various first-aid treatments.

Goal 9: Knows what to do for minor cuts and burns

Pupils should be taught that the important thing to remember when caring for minor cuts is to avoid possible infection. A class demonstration should be given on the washing of wounds and the applying of antiseptics. Sterility

EXPLANATIONS AND SOME SUGGESTED ACTIVITIES AND TECHNIQUES

Goal 9: (Continued)

and cleanliness should be emphasized. Pupils should be taught that puncture wounds caused by rusty nails, splinters, and other sharp objects contain germs and are particularly dangerous. They should learn the accepted first-aid treatment for burns. The pupils should learn, also, how to control bleeding.

Goal 10: Becomes safety conscious

Pupils may make safety surveys of their school, homes, yards, and farms, and correct those hazardous conditions which they can. The teacher may suggest the steps to be taken to correct those hazards which the children are unable to correct.

Pupils may participate in school and community clean-up campaigns and Fire Prevention Week.

Ways may be found for pupils to cooperate in the school Civil Defense Program.

Goal 11: Knows what immunizations he gets regularly and why they are given

The group may visit the health authorities or hospital staff to obtain this information. Each pupil may keep his own record and take part in class discussion.

Goal 12: Understands that early stages of tuberculosis can be cured

The teacher should continue to stress the importance of the X-ray to discover early tuberculosis. Some understanding of how X-rays are made may prove helpful in creating interest in having an X-ray.

The pupil should be taken into the confidence of the doctor or nurse who conducts the examination. The teacher should do preliminary work on this so that both the pupil and medical staff will be prepared.

Pupils may be drawn into discussions of checkups on automobiles to find and eliminate defects before they become serious. The thought should be developed that they should be even more concerned about the human body and have

EXPLANATIONS AND SOME SUGGESTED ACTIVITIES AND TECHNIQUES

- Goal 12: (Continued) regular physical checkups. The nature of tuberculosis and the fight against it, especially the part medical research has played in controlling this disease, may be studied.
- Goal 13: Knows how to use a public restroom
- If possible, the teacher should arrange for pupils to visit a public restroom, see the facilities, and learn how to use them properly. Service station attendants may be helpful in assisting with this study.
- If a public restroom is not available, school toilet facilities may be used for practice purposes.
- Goal 14: Knows the source of the water supply for his own and other communities, and how garbage and sewage disposal are handled
- The teacher should develop, with the class, an understanding of the term sewage. Pupils may find out the proper disposal of sewage, garbage, dish-water, and bath water. They may study the correct location of a sewage disposal unit - whether outdoor toilet, septic tank, or city sewage system - in relation to the water supply. A trip to the local sewage disposal plant is desirable.
- Goal 15: Understands why alcoholism is a very serious problem
- The class may:
1. Study traffic accidents and the number involving drinking drivers and pedestrians.
 2. Find out how much money is spent in their State each year on alcoholic beverages.
 3. Discuss reasons why there are laws to keep adolescents from drinking alcohol, and why they were passed.
 4. Find out what this law is for their State.
 5. Determine ways that money now spent for alcoholic beverages might be better used.
 6. Determine problems created by excessive drinking.

EXPLANATIONS AND SOME SUGGESTED ACTIVITIES AND TECHNIQUES

Goal 16: Understands why smoking may be harmful

Pupils may be asked to open and close their fists about 75 times a minute. The teacher may time them to help them understand the work the heart does and that the heart muscle contracts at about this rate throughout life.

The teacher may help children to understand that heavy smokers are often bothered with a cigarette cough as a result of irritation of membranes of the nose, throat and bronchial tubes; and that as a person inhales, very small amounts of harmful substances are taken into his body. (See chart at Goal 8, Level Six.)

Each pupil should be encouraged to get all the facts he can about smoking, to think about them, and then to decide what he will do about smoking.

Pupils may read recent studies done on smoking and its effect on health.

Goal 17: Learns to participate in a wide variety of activities with opportunity to experience success in many

Because of the variance in maturity and needs of the individuals in this age group, it is particularly important that physical education activities be selected to suit the needs of each individual. Activities should be modified to provide the best growth and development for each child at his present stage. It may mean the inclusion of less vigorous activities such as sitting, or quiet games, or additional rest for a child.

Boarding schools should be able to program physical education activities so many experiences will be involved.

Goal 18: Understands the basic principles controlling body mechanics and maintains correct postural positions

For continuing improvement of body mechanics, muscle tone should be maintained through exercise, but exhaustion should be avoided. A systematic calisthenics period of 15-30 minutes should be scheduled to drill students in the fundamental fitness exercises.

Pupils may draw and label parts of the body affected by various exercises.

EXPLANATIONS AND SOME SUGGESTED ACTIVITIES AND TECHNIQUES

Goal 19: Has some knowledge of weight training

Both boys and girls need to know that weight training can develop large and small muscle groups rapidly. Deficiencies in muscle size or strength can be corrected at a faster rate through weight training. Boys may be encouraged to use bar bell equipment, and girls may use Indian clubs or other light-weight equipment.

Goal 20: Participates in the following team sports: softball, touch football, basketball, soccer, volleyball, apparatus skills, track, and field

At upper levels, children of the same level and even the same age show great differences in their physical maturity. At the time when team games are being introduced, it is essential that children be classified in ability and physical groups for fairness in competition.

A desirable method of classification for elementary boys is the Greenway method, based on height and weight. Use one-half the weight, plus height in inches, to secure the points.

Class A	126 points or over
Class B	116-125 points
Class C	104-115 points
Class D	90-103 points
Class E	89 points or under

Sample Language Implications Related to this Goal

Situation. Pupils are playing volleyball. They may say the following at the appropriate time.

I'll get the volleyball.
 We'll roll out the net.
 Let's choose teams.
 Joe and Ned, you be the captains.
 I'll keep score.
 It's your serve.

EXPLANATIONS AND SOME SUGGESTED ACTIVITIES AND TECHNIQUES

Goal 20: (Continued)

Make it good.

Try again.

A point here.

What's the score?

_____ to _____ in favor of North.

Do we have time for a whole game?

Yes, I think so.

No, let's just play to ten.

Keep it up.

Our ball; your team hit it too many times.

Goal 21: Knows that new activities require new safety knowledge

Pupils may select some new skills they have tried to learn, or some new piece of equipment they have learned to operate recently. They may investigate safety guides essential to these activities or to the operation of this piece of equipment.

HEALTH AND PHYSICAL FITNESS

LEVEL EIGHT

EXPLANATIONS AND SOME SUGGESTED ACTIVITIES AND TECHNIQUES

Goal 1: Has some understanding of the information on his health record

A nurse or physician may go over a health record form carefully with the class and discuss reasons for items which are included on the form.

Goal 2: Knows the relationship of rest, good food, and proper clothing to health

Prior to this level, the pupil has practiced simple health rules. At this level, he needs to gain a deeper realization of the importance of rest, good food, and proper clothing in keeping healthy. Charts and other visual aids may be used to reinforce understanding.

The relationship of good health habits to healthy skin should be re-emphasized. Facts about acne should be reviewed.

Goal 3: Follows instructions for the proper care of his eyes

Pupils may:

1. Discuss the necessity for periodic testing of vision.
2. Investigate the relationship of vision to accidents.
3. Discuss proper care of the eyes, prevention of eye fatigue, and use of prescribed glasses.

Goal 4: Knows the parts of the digestive system and how they function

Pupils should be familiar with the interdependence of the parts of the body and that good health is dependent on proper functioning of all parts of the human body. Diagrams drawn on the chalkboard may be used to extend these understandings.

Use may be made of visual aids such as filmstrips, films, and torso models. A microscope may be used to study cellular structure and circulation of blood in the skin. (Use skin of a live frog.)

This study should include factors which influence digestion, absorption, and use of digested materials.

EXPLANATIONS AND SOME SUGGESTED ACTIVITIES AND TECHNIQUES

Goal 5: Understands the respiratory system and knows how to care for it

Activities for this accomplishment may be related to those for Goal 4, Level 8, and Goals 12 and 16, Level 7.

Pupils should understand the need for fresh air and sunshine for healthy functioning of the respiratory system.

Goal 6: Realizes the value of regular dental examinations and good oral hygiene

The class may determine what the dentist is looking for during a checkup. The purpose of dental X-rays may be ascertained. The dentist may be asked to exhibit and explain a dental X-ray.

Pupils may build tooth models, and discuss dental hygiene. These models may be molded from clay. One group of models may be used to illustrate dental neglect; e.g., cavities and gum disorders. The other models may illustrate a healthy mouth.

From a study of these models, students may become aware of the importance of regular brushing and use of mouth wash and dental floss.

Goal 7: Gains some understanding of the emotional changes brought about by physical changes at puberty

Within the framework of local school policy, and in the proper setting, informed adults - teachers-guidance, school nurses, doctors, and social workers - may accomplish this objective with boys and girls separately. Films, lectures, and discussions may develop further an understanding of the nature of emotional changes brought about by physical changes at puberty, provided such techniques are used in the proper setting, and by informed adults.

Goal 8: Knows the symptoms and has layman's knowledge of prevention and control of the most prevalent diseases

The class may invite the school doctor or nurse to talk to the group. Health films may be shown. Reference material may be used to find information. Charts and posters may be made. This study should include information on vaccines, toxoids, and gamma globulin.

EXPLANATIONS AND SOME SUGGESTED ACTIVITIES AND TECHNIQUES

Goal 9: Knows the precautions necessary in preventing tuberculosis

Medical personnel may exhibit X-ray films and point out various stages of tuberculosis.

The dangers of contacts with tubercular cases may be discussed. Demonstrations may be given of precautionary procedures.

The pupil should learn the importance of building and maintaining a strong body and how he can build a strong body resistance to tubercle bacillus.

Goal 10: Understands how water can be contaminated and how it can be purified

Pupils should know that drinking water is not chemically pure. It should, however, be:

1. Free from harmful bacteria.
2. Clear and colorless.
3. Free from disagreeable taste and odor.
4. Reasonably soft.

Members of the class may observe a glass of pure water (safe for drinking) and a glass of impure water, to note that both look the same. After bacteria have been given sufficient time to grow and multiply, pupils may examine the water from the two glasses under a microscope. If a microscope is not available, use filmstrips, slides, charts, and illustrations from various references to develop the concepts.

The class should study and discuss the various ways by which water can be contaminated - that mud, living organisms, decaying plant and animal materials, and dissolved minerals are sources of water contamination; that some water impurities are dissolved, while others, such as mud, are suspended and visible to the naked eye; and that usually ground water is a safer source of pure drinking water than surface water.

EXPLANATIONS AND SOME SUGGESTED ACTIVITIES AND TECHNIQUES

Goal 10: (Continued)

Ways to prevent contamination of pure water should be discussed. Special attention should be given to using clean containers and individual drinking cups, and to locating the well above and at least fifty feet away from contaminated areas. Water should be stored in clean, covered containers.

Pupils may study how astronauts maintain water supply purification.

If possible, pupils should visit a municipal sewage disposal plant and water reservoir.

Pupils may boil impure water and examine it under a microscope. The class should realize that boiling is the simplest means of water purification. They may find out how the school's water supply is purified and become familiar with the procedure for getting a water sample tested by the State Health Department. If possible, a field trip may be taken to a town or city water purification plant.

Goal 11: Knows what to do for poisonous bites

Pupils should know the most common venomous insects and animals, such as black widow spiders, scorpions, Gila monsters, poisonous snakes, bees, mites, and ticks. Pictures, films, and filmstrips may be used to acquaint pupils with these animals, and to provide first-aid information concerning their bites.

Goal 12: Knows how to administer artificial respiration

The pupil should learn that artificial respiration is needed at any time when there is a stoppage of normal breathing. Pupils should understand that, through breathing, the body cells are supplied with oxygen which is essential to the continued life of all body cells. They should learn that the failure of oxygen to reach the body cells, even for short periods of time, results in irreparable damage or death. They should learn that a person who has knowledge of the best methods of applying artificial respiration can prevent death or cell damage. Teachers should keep informed of the methods currently taught by the American Red Cross.

EXPLANATIONS AND SOME SUGGESTED ACTIVITIES AND TECHNIQUES

- Goal 12: (Continued) Using a dummy torso, the teacher should demonstrate artificial breathing and give pupils opportunities to practice administering artificial respiration.
- Goal 13: Understands how fires can be extinguished Under supervision, pupils should practice extinguishing small fires by using sand and water. They should understand that fires are extinguished by a lack of oxygen. They should observe the use of common types of fire extinguishers, learning the type to use for different kinds of fires. A small amount of oil may be put in a flat pan and water poured on the oil to note how it spreads. Pupils should determine how various types of fires may be extinguished; that gasoline fires are not extinguished by water, but wood fires are.
- Members of the local fire department may be requested to assist in the accomplishment of this goal.
- Goal 14: Understands that alcoholism is an illness Pupils may discuss what they believe alcoholism is. They may view films, filmstrips, and slides on the subject to verify or correct their impression.
- Pupils may become acquainted with the purpose of Alcoholics Anonymous.
- Pupils may learn some facts about alcohol; such as:
1. Alcohol is a depressant.
 2. Alcohol dulls the senses so that one does not have good judgment or muscular control.
 3. Alcohol consumption may become a habit hard to break.
- Pupils may be encouraged to get all the facts about alcoholism, think about them, then each individual may decide how he should handle the matter of drinking intoxicants.
- The study of alcoholism may be approached from the standpoint of its prevalence among Indian and non-Indian groups.

EXPLANATIONS AND SOME SUGGESTED ACTIVITIES AND TECHNIQUES

Goal 15: Learns the facts about cigarette smoking

Pupils may discuss reasons people sometimes have difficulty in trying to break the smoking habit.

They may evaluate smoking advertisements to determine how they are based on appeal.

A committee may contact the local cancer society or write to the State society for information concerning smoking and lung cancer. Again, pupils should be encouraged to get all the facts, think, and decide for themselves what course they will follow.

Pupils may watch current articles on smoking and make a scrapbook of these articles.

Education on facts about smoking should be emphasized.

Goal 16: Knows the general rules and technical skills used to play standard national games, such as soccer, speedball, softball, basketball, tennis, and volleyball

Pupils should study the rules for new games or activities before playing them. The teacher should make explanations as simple and concise as possible. Simple demonstrations are more effective than lengthy explanations.

Technical skills may be learned by demonstration and practice after school, or during physical education period.

Goal 17: Appreciates the value of wise use of leisure time

There are numerous active sports; such as, swimming, riding horseback, archery, and bowling, which can contribute to the ability of the individual to enjoy a healthy, leisure-time activity, if the skills of these individual and dual sports are taught. Many of them do not lend themselves readily to classroom instruction, but they offer worthwhile material for physical education.

EXPLANATIONS AND SOME SUGGESTED ACTIVITIES AND TECHNIQUES

Goal 18: Begins to participate in interschool meets in the form of playdays

For grades seven and eight, there should be separate playdays for boys and girls, as well as opportunities for coeducational playdays. During these occasions, large numbers of pupils can have the experience of meeting with pupils from other schools and playing with them in a situation where school rivalries are forgotten and they meet as neighbors, not as opponents. Play is vigorous but the emphasis is upon social outcomes.

Activities suggested for playdays are: volleyball, bat ball, dodge ball, softball, soccer, basketball, and horseshoes. Almost any game or activity can be adapted to the playday situation.

Goal 19: Contributes to planning and carrying out social events for boys and girls

Class meetings or a small committee meeting afford opportunities for pupils to assume partial responsibility for planning social activities. Pupils should be led to see that lack of planning on their part can mean a poor social. The teacher should exercise patience and give the pupils time to get a feeling for this type of activity. Rather than dominate activity planning, the teacher should allow pupils to make mistakes. However, evaluation and additional activities should be provided to allow pupils to correct past mistakes and to become more secure in carrying out this type of responsibility.

Goal 20: Knows need of possessing a considerable body of important safety knowledge

Safety panels may discuss the following:

- Safety on Foot
- Proper Clothing To Be Seen Easily by Drivers
- Bicycle Safety
- Pedestrian Safety
- Safety at Home
- Auto Safety
- Safety at School
- Safety in the Gymnasium

EXPLANATIONS AND SOME SUGGESTED ACTIVITIES AND TECHNIQUES

Goal 20: (Continued)

Posters and charts may be used effectively in presenting such discussions. First aid pertaining to the above should be included in the discussions.

Sample Language Implications Related to this Goal

Pupils tell what a safety-conscious person does to prevent accidents.

A safety-conscious person thinks about safety in everything he does.
He thinks and acts safely at school.
He walks, rather than runs, in the school halls.
He watches where he is going.
He closes his locker door.
He thinks and acts safely as a pedestrian.
He uses pedestrian lanes.
He makes sure the way is clear for pedestrians before crossing a street.
As a pedestrian, he obeys traffic signals.
He thinks and acts safely at home.
At home, he closes drawers and cupboard doors.
He puts tools away when they are not in use.
He chooses a non-windy day on which to burn leaves.
He thinks and acts safely in sports.
When he swims, he swims with a companion.
He wears a life-jacket when boating.
He carries sports equipment such as bats, roller skates, tennis racquets without swinging them dangerously.

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S C I E N C E

L E V E L S E V E N

EXPLANATIONS AND SOME SUGGESTED ACTIVITIES AND TECHNIQUES

Goal 1: Builds upon previous knowledge about the classification of living things

The pupils may classify collections. These may be discussed to bring out the fact that scientists make classifications on different characteristics. Plants and animals may be observed under a microscope. Pictures, posters, charts and bulletin boards may be used to illustrate classifications.

Animals

One-celled animals
 Protozoa
 Worms
 Mollusks
 Starfish
 Arthropods (crustacea,
 centipedes, spiders,
 insects)
 Fish
 Amphibia
 Birds
 Mammals

Plants

One-celled plants
 Bacteria
 Yeast plants
 Molds
 Algae
 Mosses and liverworts
 Ferns
 Seed plants (monocotyledons
 and dicotyledons)

/Barr (1), and Hanauer (10).

Goal 2: Knows about the balance of nature

On the basis of research, pupils may discuss ways that animals depend on plants and other animals for food; how plants, in turn, use humus for food; that the numbers of various animals are controlled by their predators; and that erosion and floods are checked by the growth of plants. Pupils should have some understanding of the balance of nature and of man's responsibility for maintaining this cycle; and that interference with this cycle causes imbalances; such as, floods, increases in undesirable animals and plants, and the destruction of some species.

EXPLANATIONS AND SOME SUGGESTED ACTIVITIES AND TECHNIQUES

Goal 2: (Continued)

Pupils may plan and build a balanced aquarium and terrarium for periodic observation. /Green (9), and Lavine (12).

Goal 3: Understands the scientific method of performing an experiment

Pupils may write on paper or on the chalkboard the steps which a scientist uses in performing an experiment.

The teacher or a pupil may demonstrate the steps to the class. Some examples of typical experiments that the students may perform are:

1. Determining which is heavier, milk or water
2. Preparing oxygen
3. Determining if iron will oxidize
4. Determining if there is dust in ordinary air
5. Determining if "dry" soil contains water.

/Larrick (11), Podendorf (16), and Stone (22).

Goal 4: Has some understanding of the composition of matter and its characteristics

Pupils may bring to class samples of various kinds of matter. They may arrange an exhibit with pictures, diagrams, and samples showing various kinds of matter.

The teacher may guide the class in performing simple experiments which show how gases, liquids, and solids are different. Pupils may construct models and charts on the composition of matter, of an atom, and of a molecule.

This concept may be expanded by simple experiments; such as, cutting and stretching materials; dissolving sugar or salt for physical changes; and burning for chemical changes. /Larrick (11), Podendorf (16), and Stone (22).

Goal 5: Knows the cause and effect of wind and water erosion

At this level the pupil should be able to consider some of the problems and solutions associated with man's use of soil, water, and forests.

EXPLANATIONS AND SOME SUGGESTED ACTIVITIES AND TECHNIQUES

Goal 5: (Continued)

The teacher may help pupils to find small areas where insidious erosion is taking place. They may experiment with different materials and ways of building check dams. A small area may be seeded or terraced or trees may be planted to observe the effect on erosion.

Reading materials and the use of resource persons may be supplemented with field trips to areas where erosion is severe, or has been checked.

Pupils should become familiar at this point with the many implications of erosion.

Through using soil in a container and an electric fan and a water sprinkler, simple experiments can be set up in the classroom to show the effect of wind and water erosion.

Pupils may become more aware of the extreme losses of soil due to erosion by viewing some of the films available.

Analyzing and evaluating such experiments and observations should help pupils gain respect for the soil and realize that, unless care is exercised in its use, rapid deterioration takes place; and that building soil is a very slow process.

Pupils should have some understanding of how scientists make use of their knowledge of physical and chemical changes. /Bixby (3).

Goal 6: Knows the importance of electricity and machinery in daily living

Pupils may be led to perceive that lightning is a huge spark of electricity; that to get lightning, one must have a charge of electricity and that an easy way to get a charge of electricity is by rubbing two different materials together. Example: Show that shuffling across a rug, combing hair, or rubbing one's hand against cat's fur produces frictional or static electricity.

EXPLANATIONS AND SOME SUGGESTED ACTIVITIES AND TECHNIQUES

Goal 6: (Continued)

The class or a group may find out how electricity works for them. Where electric current is available in the school, pupils may visit the kitchen, shop, and other places to get this information. Otherwise, reference materials and films may provide the source. That electricity is a source of power, light, and heat, and that it makes communication by telegraph, telephone, radio, and television possible should be stressed.

Pupils may observe, discuss, and experiment with the six types of simple machines (screws, wheel-and-axle, gears, pulleys, levers, and inclined plane) in order to extend their understanding that complex machines are nothing more than combinations of simple machines. For example, in an airplane the propeller is a screw or inclined plane, and the cam and drive shaft are levers. The class should discuss changes brought about in our lives by complex machines such as the automobile and the airplane.

A collection of simple machines like a can opener, bottle-cap remover, and egg beater which are used in the home may be displayed. /Morgan (13).

Sample Language Implications Related to this Goal

Situation. A student has prepared a model to demonstrate how a traffic light works and is explaining it, as follows, to the class.

This is a model of a switch in a traffic light. Here are the three colored lights - green, yellow, and red. This can represents a rotating drum. Electric current comes from the dry cell to the drum through this wire. The drum then conducts the electricity. There is a wire to each light. Part of the time it touches the bare metal of the drum. When the wire touches the metal of the drum, the circuit is complete and the light comes on.

EXPLANATIONS AND SOME SUGGESTED ACTIVITIES AND TECHNIQUES

Goal 6: (Continued)

This adhesive tape on the drum in the path of each wire goes two-thirds of the way around. When the wire touches the adhesive tape, the circuit is broken and no electricity can go to the light, so the light goes out.

The insulated and non-insulated parts of the drum are arranged so that each light comes on at a different time. /Schneider (21).

Goal 7: Knows something of the interrelation and order of the universe

At this level children may develop the concept that accurate time is measured by the steady rotation of the earth as it revolves around the sun, and that the entire solar system is moving through space. The north star and constellations may be observed. If possible, an observatory may be visited, or a telescope may be used. Sky maps may be made. Through the use of magazines and newspapers, children may keep up to date with man's progress in exploring space. /Lavine (12), and Posin (17).

S C I E N C E

L E V E L E I G H T

EXPLANATIONS AND SOME SUGGESTED ACTIVITIES AND TECHNIQUES

Goal 1: Has an understanding of methods to improve plants and animals for man's use

Pupils may read about the work of Luther Burbank, analyze his accomplishments, and determine which they believe have had the greatest influence for the good of humanity.

They may determine from appropriate pamphlets and bulletins from the Department of Agriculture what is being done currently to improve the quality of plant and animal life. They may find out how individual growers, farmers, nurserymen, cattlemen, and others are contributing to the improvement of plants and animals.

Pupils may learn through interviews with farmers and extension agents the methods used to bring about improvements in quality of plant and animal life. As time permits, they may experiment with methods learned and share the results with teachers, classmates, farmers, and extension agents.

/Chrystie (6).

Goal 2: Understands why there are seasonal changes

Individuals may read the weather forecasts in daily newspapers, listen to radio weather reports, and check for the degree of accuracy with the actual weather. Weather reports may be used in planning for a picnic or trip. The importance of frost warnings to vegetable, fruit, and citrus growers may be discussed. Pupils may study about the importance of weather reports to transportation companies, farmers, and others who are most affected by weather conditions. A visit may be made to a weather bureau station to see the equipment and learn how it is used in weather forecasting.

Pupils may make a simple planetarium. On a board which has been cut to an efficient working size (4' x 4' or larger) pupils may draw an ellipse to represent the path of the earth in a year's time. A small electric light may be placed at a position within the ellipse to represent the sun. Through the use of reputable source materials, the pupil may determine the position of the earth at twelve points on the ellipse, each representing a position for each month of the year. At each of the twelve points the angle

EXPLANATIONS AND SOME SUGGESTED ACTIVITIES AND TECHNIQUES

Goal 2: (Continued)

of the earth's axis may be determined. Holes may be drilled at each of the twelve points, allowing for the mounting of a small world globe to represent the earth rotating at the proper angle.

The small globe may be mounted on a steel rod. This rod should be approximately six inches longer than the diameter of the globe. Pupils may move the globe around the circle, at the same time rotating the globe, to demonstrate the changes made in the light rays striking different points on the globe.

The teacher may help pupils compare results with changing seasons. They may give a demonstration for visitors and for other classes at the school.
/Gear (8).

Goal 3: Knows some ways to prevent soil erosion

Pupils may examine different kinds of soil with a magnifying glass to pick out pieces of rock, sand, and organic matter. The very fine material left is probably clay.

Soil and water may be put into a jar and stirred. After it settles, pupils may observe that the coarsest material settles to the bottom.

Pupils may become familiar with the three classes of soil; namely, clay, sand, and loam.

A small, thin layer of loam may be placed over a fire for the class to observe that it changes in color as organic matter burns. It may be weighed before and after burning.

Pupils may observe what happens when water passes over a surface free from plant growth to note the importance of good plant growth in preventing soil erosion.

EXPLANATIONS AND SOME SUGGESTED ACTIVITIES AND TECHNIQUES

Goal 3: (Continued)

Members of the class may report on ways soil erosion can be prevented and which methods are practiced in their community.

Over-grazing may be studied and discussed thoroughly in areas where Indian land has been lost by this practice. Pupils may learn from a reliable source the numbers of sheep, cattle, or other animals that may profitably graze on an acre of land in the pupils' home community.

The pupils should learn that all life upon the earth depends directly or indirectly on the soil. They may make charts with pictures of things coming directly or indirectly from the soil. /Bixby (3), and Bronson (5).

Goal 4: Participates in a local community conservation program

Committees may gather information on the amount of water consumed in one day by the average person, by a city, or by a community. The class may be guided in discovering that it is not always easy for a community or city to get as much water as it needs. Pupils may learn that a water supply generally comes from two sources - surface water (rivers, lakes, and ocean) and ground water (deep wells, artesian wells, and springs).

Research may be done on various uses made of water. Interesting stories about water may be found and shared with the class.

Pamphlets, charts, and graphs on conservation may be studied. Pupils may attend community demonstrations. Table models showing certain aspects of a conservation program may be constructed. Children may visit projects and learn about local conditions and plans for conservation.

Pupils may beautify their surroundings with plants by using native and cultivated shrubs and flowers for landscaping.

Goal 5: Understands the operation and principles of simple machines

At this level the pupils should study and experiment with each of the six simple machines to learn how they operate to make work easier.

EXPLANATIONS AND SOME SUGGESTED ACTIVITIES AND TECHNIQUES

Goal 5: (Continued)

1. Wheel. Learns that wheels may be linked in trains by belts to gain advantage of direction and speed.
2. Pulley. Learns that pulleys multiply force; give mechanical advantage.
 - a. Uses spool pulleys or small models to form many combinations.
 - b. Learns that the advantage of a pulley system is approximately equal to the number of strands supporting the lead.
3. Lever. Perceives by experimentation and observation that levers have a mechanical advantage or speed according to type.
4. Inclined Plane. Experiments with the inclined plane from gentle to steep inclines to find the mechanical advantage, and finds out that wedges are special inclined planes used to help push things apart.
5. Screw. Learns that the screw usually combines the wedge, the inclined plane, and the wheel and axle.
6. Gear. Finds out how gears multiply force and may be used to gain speed by examining clock, bicycle or auto gears.

Pupils may:

1. Make small models of machines that use air pressure.
2. Study animals that make use of air pressure to move from place to place.
3. Read, and view films and filmstrips for information about the use of air in air brakes, vacuum cleaners, and tires. /Schneider (20).

EXPLANATIONS AND SOME SUGGESTED ACTIVITIES AND TECHNIQUES

Goal 6: Has some understanding of how energy changes cause physical and chemical changes

Pupils may do many kinds of simple experiments to show various types of chemical changes and discover what happens when:

Food is eaten.
A person breathes.

Pupils may dissolve baking soda in a glass of lemon juice, put some vinegar in a glass full of baking soda, or put a teaspoonful of baking soda in a half glass of vinegar to note change.

On the basis of experimentation, pupils may illustrate to the class how heating and cooling changes materials; such as, water changing into steam or ice, glass bending, and sugar burning.

Pupils may place ice in water and test temperature before and after, or fill a glass or a plastic bottle with water or milk and freeze to show expansion. To determine the rate of expansion, a wire may be measured, heated along its whole length and measured again after heating.

A certain volume of water may be heated to show how heating increases volume. A volume of air may be heated to determine how its volume changes. Pupils may perform experiments on the melting point of various materials; such as, butter, lead, and plastic. They may experiment with evaporation of various substances; such as, hot water, cold water, alcohol, and ether, to see if all liquids evaporate at the same rate. Demonstrations may be given to determine what happens when steam is cooled.

Goal 7: Is familiar with the electromagnet and dry- and wet-battery cells

Concepts should be kept simple.

Pupils may secure horseshoe and bar magnets and experiment to determine which materials can be magnetized.

EXPLANATIONS AND SOME SUGGESTED ACTIVITIES AND TECHNIQUES

Goal 7: (Continued)

A compass may be made by magnetizing a darning needle. Pupils may lay it across a cork in a pan of water and watch it take a north-south direction. Pupils may learn to use a real compass. The concept that the compass is a magnet with the north and south magnetic poles and magnetic lines of force should be developed.

A small electromagnet may be made by wrapping several feet of insulated wire around an iron bolt or large nail and fastening the two ends of the wire to a dry cell. The magnet may be used to move a pile of iron filings or tacks. The fact that electromagnets are made stronger by using more coils and by sending stronger currents through the wire should be discovered.

Pupils may take a dry cell apart to study the chemicals, the carbon rod, and the zinc caps which generate the electricity, and determine how the wires must be connected to the two posts on the cell before electricity is generated.

A section of wet storage battery may be examined to learn its parts and how electricity is stored. /Yates (24) and (25).

Goal 8: Learns some ways in which man uses air and space

Children may search for as many ways as possible in which man utilizes air pressure. They may consider: machine power, windmills, sailboats, vacuum cleaners, plumbing, and steam power. Models of windmills, sailboats, and gliders may be made and tested. Air compressors and air pressure in tires may be studied.

Pupils may perform simple experiments with balloons and other objects to help them understand Newton's Law of Motion and jet propulsion. Simple research and experiments may be done to help pupils understand the working of rocket engines, escape velocity, the orbiting of satellites, and centrifugal force.

EXPLANATIONS AND SOME SUGGESTED ACTIVITIES AND TECHNIQUES

Goal 9: Understands a few sources of energy emanating from the physical universe

Through elementary research, observations, simple experiments, field trips, and the use of resource persons, pupils should develop the concept that a change of movement of any kind involves energy. They should discover that there are many forms of energy; such as, chemical energy, mechanical energy, sound, light, and heat, and that when a fuel is used properly, energy is released. The concepts that everything is made of small moving particles called atoms, and that electrical energy is a movement of electrons which are the outer parts of atoms should be developed. Pupils may discover that energy is stored in coal and petroleum. The teacher may use a geiger counter to help pupils understand that the atom is a vast storehouse of energy and that uranium is one fuel which is used to release this atomic energy to run machinery.

Pupils may collect pictures of atomic-powered ships, submarines, and cities powered by atomic energy.

Sample Language Implications Related to this Goal

Pupils explain the following orally:

The work of the world is accomplished by energy. Some kinds of energy are mechanical, heat, radiant, chemical, and nuclear energy.

Mechanical energy comes from the movement of a whole object. Examples of mechanical energy are a hammer hitting a nail, a bat hitting a ball, or a wheel turning.

Heat energy is produced when molecules are caused to vibrate in many directions. Rubbing one's hands together produces heat energy. Steel wire's resistance to electrical current also produces heat energy.

Radiant energy is a name given to vibrations which travel through the air or empty space. Light from the sun is radiant energy. X-rays,

EXPLANATIONS AND SOME SUGGESTED ACTIVITIES AND TECHNIQUES

Goal 9: (Continued)

television waves, and radio waves are vibrations that travel through empty space. Scientists need to learn more about radiant energy.

Chemical energy is released through a chemical change in matter. Lighting a match, burning fuels, and exploding dynamite are examples of energy produced by chemical changes.

Nuclear energy is produced when atoms are split into parts. Scientists know how to produce nuclear energy from uranium and plutonium.

Goal 10: Has a general understanding and curiosity about man's quest for knowledge of the universe

Pupils should realize that man's quest for knowledge of the universe has extended from ancient times to the present.

The pupils may do research to find out which planets are visible to the naked eye at the time, their location in the sky, and the times they rise and set. Solar and lunar eclipses and phases of the moon may be depicted. The solar system, constellations, comets, and corona may be portrayed and sky charts may be displayed.

Pupils may visit an observatory or planetarium, if one is accessible. Children may learn to use a telescope, if one is available.

Pupils may prepare displays or bulletin boards, showing the tools of the astronomer. /Hanauer (10), and Morgan (13).

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N U M B E R C O N C E P T S

L E V E L S E V E N

EXPLANATIONS AND SOME SUGGESTED ACTIVITIES AND TECHNIQUES

Goal 1: Understands the relationship of fraction numerals and decimal numerals

The study of decimal fractions may be approached through the medium of related common fractions. Children should learn that decimal fractions are common fractions whose denominators are 10, 100, 1000, or some power of 10 greater than 0.

Sample Language Implications Related to this Goal

Session 1

Each pupil in a small group may be given a 10" x 10" piece of paper and be directed to divide it into 100 one-inch squares.

Teacher: What is the fractional size of the whole piece of paper?

Pupil: The whole piece of paper is one hundred one-hundredths.

Teacher: What is the fractional size of one square?

Pupil: One square is one one-hundredth of the whole.

Each pupil may be given some one-inch squares of colored paper and the teacher may proceed as follows:

Teacher: (To each pupil respectively)

(Name), cover 5 squares, please.

(Name), cover 7 squares, please.

(Name), cover 20 squares, please.

(Name), cover 9 squares, please.

(Name), cover 15 squares, please.

(Name), cover 13 squares, please.

(Name), cover 12 squares, please.

(Name), cover 6 squares, please.

EXPLANATIONS AND SOME SUGGESTED ACTIVITIES AND TECHNIQUES

Goal 1: (Continued)

After each pupil has covered his number of squares, each may tell the fractional part he has covered.

Pupil 1: I covered five one-hundredths of the squares.

Pupil 2: I covered seven one-hundredths of the squares.

Pupil 3: I covered twenty one-hundredths of the squares.

Pupil 4: I covered nine one-hundredths of the squares.

Pupil 5: I covered fifteen one-hundredths of the squares.

Pupil 6: I covered thirteen one-hundredths of the squares.

Pupil 7: I covered twelve one-hundredths of the squares.

Pupil 8: I covered six one-hundredths of the squares.

Teacher: We said that all the squares are one hundred one-hundredths. Another way of indicating all the squares is to say 100 percent. Each square is one percent. Now tell the fractional parts you have covered, using percent instead of hundredths.

Pupil 1: I covered five percent of the squares.

Pupil 2: I covered seven percent of the squares.

Pupil 3: I covered twenty percent of the squares.

Pupil 4: I covered nine percent of the squares.

Pupil 5: I covered fifteen percent of the squares.

Pupil 6: I covered thirteen percent of the squares.

Pupil 7: I covered twelve percent of the squares.

Pupil 8: I covered six percent of the squares.

Teacher: Now let's write in numerals what we have said.

One hundred one-hundredths equal one hundred percent equal one hundred percent (as he writes on the board:

$$\frac{100}{100} = 100 \text{ percent} = 100\%.)$$

EXPLANATIONS AND SOME SUGGESTED ACTIVITIES AND TECHNIQUES

Goal 1: (Continued)

One one-hundredth equals one percent equals one percent (as he writes on the board:

$$\frac{1}{100} = 1 \text{ percent} = 1\%.)$$

The pupils may come to the board and follow the same pattern with the problems they have. For example, pupil 1 may say:

Five one-hundredths equal five percent equal five percent (as he writes:

$$\frac{5}{100} = 5 \text{ percent} = 5\%.)$$

Each pupil may be given some cards having such as the following written on them:

$$\frac{4}{100} . \quad 6\% . \quad 20\% . \quad \frac{8}{100} .$$

Each pupil may give the others directions and call on someone to explain what he did. For example:

Pupil 1: Cover four one-hundredths of the squares.

Pupil 2: I covered four one-hundredths or four percent of the squares.

Session 2

Each pupil may be given a piece of 10" x 10" tracing paper to lay over his paper which is divided into squares. Pupils may mark on the tracing paper so as to divide the hundred squares into fourths, fifths, tenths, or twentieths. Proceeding in a fashion similar to session 1 above, pupils may state verbally, such as the following:

EXPLANATIONS AND SOME SUGGESTED ACTIVITIES AND TECHNIQUES

Goal 1: (Continued)

$$\frac{1}{4} \text{ of the squares} = \frac{25}{100} = 25\%.$$

$$\frac{3}{4} \text{ of the squares} = \frac{75}{100} = 75\%. \quad \frac{1}{10} \text{ of the squares} = \frac{10}{100} = 10\%.$$

Session 3

Pupils should be guided in changing fractions to decimals without the use of pictorial means.

Goal 2: Learns the meaning of percentage, and is introduced to the "3 cases" of percent

Pupils should undertake the study of percentage with an adequate understanding of the underlying fraction concepts. They should understand that percentage is merely a new word for an idea with which they are already familiar, and that percent means hundredths; thus:

.14 equals 14 hundredths equals 14 percent equals 14%.
 .85 equals 85 hundredths equals 85 percent equals 85%.
 .07 equals 7 hundredths equals 7 percent equals 7%.

Pupils may learn that businessmen and other people often use the term percent when referring to hundredths. (When a merchant advertises a reduction of 25 percent or 25% off on ladies' coats, he means that he has reduced the price 25 hundredths, or .25 or 1/4.)

First lessons in percentage should be planned to show the close relationship between percentage and decimal fractions or common fractions. Developing percentage charts and graphs of attendance may provide purposeful activities in the use of percent.

EXPLANATIONS AND SOME SUGGESTED ACTIVITIES AND TECHNIQUES

Goal 2: (Continued)

The three types referred to in the goal are:

1. 45% of 80 is ____.
2. 35 is 14% of ____.
3. 41 is ____% of 82.

In states with sales tax, pupils may figure taxes from schedules used by sales personnel.

Goal 3: Learns fractional equivalents of commonly-used percents

Children may make a chart showing the list of percents with their fractional equivalents. Each pupil may make a copy. For reinforcement and evaluative purposes, the teacher may choose sides and have a contest to see who has the best automatic response, and who needs further help.

Goal 4: Uses decimal fractions in the four processes

Pupils may need practice in keeping the decimal points in a straight column and in writing tenths under tenths, hundredths under hundredths, and so on.

In subtraction, pupils should be shown by example that if the number of places in the subtrahend is greater than the number of decimal places in the minuend, subtraction must begin from an imagined zero. Pupils may need to write the zeros until they become proficient and can work without the visual aid. Example:

$$\begin{array}{r} 62.3 \\ - 13.291 \\ \hline \end{array} \quad \text{or} \quad \begin{array}{r} 62.300 \\ - 13.291 \\ \hline \end{array}$$

The analogy to common fractions that exists in adding and subtracting decimals should be shown by example, as $1/10$ plus $3/10$ equals $4/10$; or $.1$ plus $.3$ equals $.4$; and $8/10$ minus $5/10$ equals $3/10$; or $.8$ minus $.5$ equals $.3$.

Multiplication of decimal fractions. Enough illustrative examples should be used for the pupil to understand that when a decimal is multiplied by a decimal, the number of decimal places in the product is equal to the number in

EXPLANATIONS AND SOME SUGGESTED ACTIVITIES AND TECHNIQUES

Goal 4: (Continued)

the multiplicand plus the number in the multiplier. Developing this understanding may be approached through the medium of common fractions. A decimal example may be stated and then solved as in common fractions.
 Example: .23 times .7 equals $\frac{7}{10}$ times $\frac{23}{100}$ equals $\frac{161}{100}$ or .161.

Division of fractions. The teacher should use sufficient illustrative examples to show the pupils that division of decimals is similar to division of whole numbers. It should be made clear that when decimals are divided the number of decimal places in the quotient equals the number of places in the dividend minus the number in the divisor. If there is no decimal in the divisor, the decimal point is placed in the quotient directly above the decimal point in the dividend.

Goal 5: Understands the term "prime numbers" and can identify them in numbers 1-100

In working with the counting numbers, children should be taught the meaning of a prime number, and guided in discovering prime numbers.

Goal 6: Understands power notation and knows the terms base, exponent, and power

As a foundation for learning power, base, and exponent, children may practice factoring and writing final factors in abbreviated form. Examples:

$$8 = 2 \cdot 2 \cdot 2 = 2^3 \quad \text{and} \quad 36 = 2 \cdot 2 \cdot 3 \cdot 3 = 2^2 \times 3^2.$$

Goal 7: Gathers information on the functions and services of a commercial bank

Pupils should be involved in the use and operation of the student bank. If possible, they may visit a local bank or invite someone from the bank to speak to them concerning fundamental banking operations.

Goal 8: Extends knowledge of money orders

Pupils should have experiences in filling out requests for money orders. The local postmaster may be invited to explain sending money by money orders. Pupils may determine how money may be sent by telegraph.

EXPLANATIONS AND SOME SUGGESTED ACTIVITIES AND TECHNIQUES

Goal 8: (Continued)

Pupils should be aware that there are several sources from which money orders may be purchased.

Goal 9: Extends oral and written problem-solving ability to include common fractions and mixed numbers

Pupils need experience with problem situations close to their living and working situation. Example: I have 36 sheep. If I were to sell $\frac{1}{3}$ of them, how many would I have left? A wide variety of problem solving situations using the four processes with fractional and mixed numbers should be provided.

Goal 10: Extends his problem-solving ability to include comparison situations

Pupils should understand how to:

Find the smaller number when the larger number and its excess or deficiency are known. Example: Tom has 8 blue marbles. He has 5 less red marbles than blue ones. How many red ones does he have? (Example of deficiency.) $8 - X = 5$.

Find the larger number when the smaller number and its excess or deficiency are known. Example: Tom has 3 red marbles. He has 5 more blue marbles than red ones. How many blue marbles does he have? (Example of excess.) $X - 5 = 3$.

Find the ratio one number is to another. (Using such terms as times as many, etc.). Example: Tom has 8 blue marbles and 3 red ones. He has what fraction as many red marbles as blue marbles? $\frac{1}{X} = \frac{3}{8}$.

Find a number when the second number and its ratio to the first number are known. Example: Tom has 8 blue marbles. He has $\frac{3}{8}$ as many red marbles as blue ones. How many red marbles does he have? $\frac{3/8}{1} = \frac{X}{8}$.

EXPLANATIONS AND SOME SUGGESTED ACTIVITIES AND TECHNIQUES

Goal 11: Extends identification of common geometric shapes to include "solids"

To develop concepts of "solids," children should be provided with concrete objects to handle and identify. Later they may engage in activities related to identifying pictures of various "solids."

For reinforcement and reference, a group may make a chart showing examples of different shapes.

Work with area and perimeter should continue. Children should be taught to compute the circumference of plane figures.

Goal 12: Develops a concept of volume and computes the volume of rectangular prisms

Through manipulation of inch cubes, the teacher may help the pupils discover a formula for figuring the volume of rectangular prisms. Pupils should be guided in checking their calculation by counting the number of cubes in the prism.

Children may thus be introduced to the cubic inch as a measure of volume. As they learned that the inch is a standard unit of measure of length, and that the square inch is a standard unit of measure of area, so they may conceive the cubic inch as a standard unit of measure of volume.

Pupils should understand that three-dimensional shapes having different dimensions may have the same volume. Although computation should be limited to rectangular prisms, children should be guided in understanding that other "solid" shapes have volume.

Goal 13: Interprets and constructs line graphs

Such data as class attendance and average temperatures may now be expressed by line graphs.

Pupils may search newspapers for information which can be graphed and express the data in various graphic forms--line, pictorial, or bar.

N U M B E R C O N C E P T S

L E V E L E I G H T

EXPLANATIONS AND SOME SUGGESTED ACTIVITIES AND TECHNIQUES

Goal 1: Extends his understanding of the "3 cases" of per cent

Pupils should solve percentage problems related to activities within their realm of experience. They might determine the percentage of words misspelled, or spelled correctly, problems solved correctly, or games won. They might plan a personal or class budget on a percentage basis.

Goal 2: Extends his ability to work with simple and complex equations involving one unknown

Pupils should have practice setting up and solving equations from written problems. Example:

John has a herd of sheep. His father gives him two more for his birthday. John now has 42. How many did he have to start with? $n + 2 = 42$.

I have 24 marbles and I give half of them away. The next day I find 2 more. How many do I now have? $\frac{24}{2} + 2 = n$.

Goal 3: Solves problems involving simple interest

Pupils may visit the local bank or write to a bank for information on interest rates. Then they may compute interest on various amounts of money deposited to a savings account, or borrowed for some purpose.

Interest tables may be used in the computation of problems.

Sample Language Implications Related to this Goal

Teacher presents this problem: Jim Smith and his family need a new washing machine. Jim has a civil-service job. He has a steady income, but he can't afford to pay cash for a new washing machine. What should he do?

Pupil 1: There are different kinds of washing machines. I think a wringer-machine is cheaper than an automatic one.

Pupil 2: They could take their laundry to the coin machines.

Pupil 3: They could send their laundry out.

EXPLANATIONS AND SOME SUGGESTED ACTIVITIES AND TECHNIQUES

Goal 3: (Continued)

Pupil 4: But, in either of those cases, the money could be used to buy their own machine.

Pupil 5: Most stores let people buy appliances on the installment plan.

Pupil 6: But you pay extra - that is, interest or carrying charges if you do that.

Pupil 7: We'd have to decide how much a month Jim could afford to pay.

Pupil 8: Maybe Jim belongs to a credit union.

Pupil 9: I wonder if it costs less to borrow money from them.

Teacher: Let's each take an assignment to find the facts needed to consider the cost of the various solutions you've mentioned and then decide which way seems wisest for Jim Smith.

Goal 4: Extends his problem-solving ability

Basically, the efforts of the pupil at this level in problem solving should be directed toward enhancing his ability to:

1. Identify the number question which must be answered to solve the problem.
2. Analyze the facts and select the proper arithmetic process to use.
3. Estimate answers.
4. Supply missing facts or eliminate superfluous information.
5. Develop logical analysis.
6. Generalize problem situations into formulae.
7. Learn to state arithmetic procedures without sacrificing mathematical correctness.

EXPLANATIONS AND SOME SUGGESTED ACTIVITIES AND TECHNIQUES

Goal 5: Knows something of how state and local taxes are computed

Tax bills may be brought to school for discussion and analysis. Committees may visit local tax collecting offices for information. Pupils may figure simple individual income tax returns. They may compute the sales tax on purchases they make.

Goal 6: Computes charges incurred by ordering merchandise

The local postmaster may be invited to talk to the class concerning the additional cost incurred by ordering merchandise by C.O.D.

Pupils may make up orders from a catalog and compute shipping charges.

Goal 7: Figures monetary advantages and disadvantages of installment buying

The teacher should provide problems to show how much more it costs to purchase merchandise on the installment plan. The importance of not having too many payment obligations at one time should be stressed. Hidden charges should be discussed. Children should be alerted to pending legislation related to charges for installment buying.

Goal 8: Begins to evaluate advertising in view of his own needs

Pupils may collect advertisements of things that appeal to them. Each contribution may be discussed. Obligation incurred in answering an advertisement should be noted. Children should consider the need and usefulness of each article in which they seem particularly interested. They should understand that they must make a sacrifice somewhere else in order to meet the obligation of paying for an article. The term making ends meet should be discussed.

Goal 9: Becomes familiar with circle graphs and statistical tables

Pictorial, bar, and line graphs should be reviewed. Graphs from magazines, daily papers, and books may be studied and discussed.

Pupils may construct and explain graphs showing class or school attendance records, savings records, and projects to raise funds.

An understanding of circular graphs should be developed.

EXPLANATIONS AND SOME SUGGESTED ACTIVITIES AND TECHNIQUES

Goal 9: (Continued)

Children should be guided in reading statistical tables and have practice in transposing material from these tables to graphs.

Goal 10: Uses compass and straight edge to duplicate angles

The teacher should develop definitions (pupil-made preferred) for circumference, diameter, radius, arc, and bisect.

Pupils should have practice in drawing circles to develop ability to manipulate a compass. They should practice bisecting angles and duplicating angles, using compasses and protractors.

Pupils should have opportunities to make practical use of bisecting lines and angles - laying out ball fields, constructing party favors, drawing maps.

Goal 11: Understands the use of the protractor

The same type of activities may be engaged in to develop skill in using the protractor as were suggested for the compass. Practical use should be made of the protractor to develop a lucid understanding of its use.

Goal 12: Computes surface area of various prisms

The properties of prisms should be reviewed previous to giving practice in computing areas. The pupils should be guided in understanding that area is not confined to two-dimensional shapes.

Heavy paper models that can be flattened out may help children to conceive the area of a prism.

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