The *NEW DIRECTIONS IN CREATIVITY* program, under the direction of Joseph S. Renzulli, includes the following manuals:

- MARK A
- MARK B
- MARK 1
- MARK 2
- MARK 3
A PERSONAL NOTE TO TEACHERS ............................................. 1

PART I: PURPOSE AND DESCRIPTION OF THE PROGRAM .......... 3

Purpose of the Program .......................................................... 3
Specific Abilities Developed by the Program ......................... 3
Description of the Program ................................................... 4
Grade and Ability Levels ....................................................... 5

PART II: GENERAL STRATEGIES FOR USING THE PROGRAM ..... 7

Brainstorming and the Fluency Principle ................................ 7
The Principle of Mild Competition ......................................... 9
The Principle of Cooperation ................................................ 9
Evaluation: The All-Important Classroom Atmosphere .......... 10
How to Use the Primary Activities ....................................... 12
Introducing the Primary Activities ..................................... 13

PART III: RATIONALE UNDERLYING THE PROGRAM ............ 15

The Need for Creativity Training Programs ......................... 15
The Structure of the Intellectual Model ............................... 16

PART IV: LESSON GUIDES FOR MARK A .............................. 21

BIBLIOGRAPHY ...................................................................... 41
In children creativity is a universal. Among adults it is almost nonexistent. The great question is: What has happened to this enormous and universal human resource? This is the question of the age and the quest of our research.

Whenever teachers ask me how I became interested in creativity and why I developed a creativity training program for children, I often answer by referring to the quotation and the two cartoons on page vi. The quotation from Harold Anderson’s book points out the great loss in human potential for creative development that takes place between childhood and adulthood. Although this loss no doubt takes its toll by limiting the number of people who make creative contributions to our society, a much more serious and far-reaching consequence is that many adults never have the opportunity to experience the satisfaction and enjoyment that results from the act of creating. Somehow the joys that were associated with childhood fantasy and imaginary excursions into the world of the improbable seem to disappear as we engage in the business of growing up. Although growing up is indeed a serious business, I often wonder if the emphasis that our culture places on the practical and the utilitarian causes most people to arrive at adulthood without the creative ability that they possessed as children.

The first cartoon illustrates the emphasis that our educational system places on the process of conformity. Most learning experiences are designed in a way that causes all youngsters to arrive at the same solutions to problems; thus it is not surprising to see a very homogenized group emerging from “the system.” A quick glance at most workbooks or exercises in textbooks reveals that only rarely do these materials purposefully encourage youngsters to be as original as possible in their answers to given problems and questions.

The second cartoon presents a sad but essentially valid picture of most children’s perception of school. Our preoccupation with order, control, routine, and conformity has made schools into dreary and often oppressive places for many children. The supposedly exciting act of learning has frequently been a coercive and sometimes even punitive process.

Many writers have summarized problems that have made schools such unfriendly places and have pointed out some of the ways that these problems can be overcome. One suggestion common to many writers is that classrooms need to be more engaging, creative, and interactive places and that youngsters need to be given greater opportunities to imagine, create, and express themselves.

The creativity training program described in this manual represents one attempt to provide both teachers and students with a set of materials that will help them learn a variety of ways for expressing their creative potential. Creativity is a dynamic process that involves “a way of looking at things”; therefore the activities included in this program are designed to broaden the way that youngsters look at their world. The program is not an end in itself, but rather a series of first steps that will provide teachers and students with the basic skills involved in creative production. Over the past few years, I have worked with hundreds of teachers in courses and workshops dealing with creativity. These experiences have shown me that a minimum amount of instruction and a maximum amount of actual involvement with the materials have effected the biggest changes in teachers’ understanding and application of creativity training activities. The old saying “The best way to learn how to do it is to do it” is a guiding principle in my approach to teaching teachers the skills of creative production. Once these skills have been assimilated, they can be applied to all areas of the curriculum and to most of the learning experiences that take place in the classroom.

Joseph S. Renzulli
Storrs, Connecticut
PART I

I hear, and I forget;
I see, and I remember;
I do, and I understand.
Chinese Proverb

PURPOSE AND DESCRIPTION OF THE PROGRAM

The New Directions in Creativity program consists of five volumes: Mark A, Mark B, Mark 1, Mark 2, and Mark 3. The program is designed to help teachers develop the creative thinking abilities of primary and middle-grade youngsters. Research has shown that almost all children have the potential to think creatively and that creative production can be improved by providing systematic learning experiences that foster use of imagination.

Purpose of the Program

The general purpose of this creativity training program can best be explained by contrasting the creative or divergent production abilities with the convergent production abilities emphasized in most elementary school classrooms. In most traditional teaching-learning situations, major emphasis is placed on locating or converging upon correct answers. Teachers raise questions and present problems with a predetermined response in mind, and student performance is usually evaluated in terms of the correctness of a particular answer and the speed and accuracy with which youngsters respond to verbal or written exercises. Thus the types of problems raised by the teacher or textbook and the system of rewards used to evaluate student progress cause most youngsters to develop a learning style that is oriented toward zeroing in on the “right” answer as quickly and as efficiently as possible. Although this ability has its place in the overall development of the learner, most teachers would agree that impressionable young minds also need opportunities to develop their rare and precious creative thinking abilities.

Divergent production is a kind of thinking that is characterized by breaking away from conventional restrictions on thinking and letting one’s mind flow across a broad range of ideas and possible solutions to a problem. The real problems humanity confronts do not have the kinds of predetermined or “pat” answers that a great deal of instruction focuses on in the convergent-oriented classrooms. Yet we give our children very few opportunities to practice letting their minds range far and wide over a broad spectrum of solutions. The philosopher Alan Watts (1964) has talked about these two kinds of thinking in terms of what he calls the “spotlight mind” and the “floodlight mind.” The spotlight mind focuses on a clearly defined area and cannot see the many alternative possibilities or solutions to a problem that may exist outside that area. Floodlight thinking, on the other hand, reaches upward and outward without clearly defined borders or limitations. The floodlight thinker is free to let his or her imagination wander without the confinements or limitations that usually lead to conformity. Both types of thinking are valuable, and to pursue one at the expense of the other is clearly a disservice to the children for whose development we are responsible.

This description of divergent thinking should not lead teachers to believe it is undisciplined or disorderly. Mary Nicol Meeker (1969) has pointed out that “divergent generation does not proceed willy-nilly; the divergent thinker is not a scatterbrain; the worthwhile generation of information requires discipline and guidance.” Following Meeker’s suggestion, the New Directions in Creativity program has attempted to provide youngsters with an opportunity to break away from conventional restrictions on their thinking. Yet an effort has been made to generate responses that are relevant to particular kinds of problems and that fall within reasonable bounds.

Specific Abilities Developed by the Program

The New Directions in Creativity program is designed to develop each of the following creative thinking abilities:

1. Fluency—the ability to generate a ready flow of ideas, possibilities, consequences, and objects

2. Flexibility—the ability to use many different approaches or strategies in solving a problem; the
willingness to change direction and modify given information

3. **Originality**—the ability to produce clever, unique, and unusual responses

4. **Elaboration**—the ability to expand, develop, particularize, and embellish one’s ideas, stories, and illustrations

Each activity in the program is designed to promote one or more of these four general abilities. The activities are also classified according to (1) the types of information involved in each exercise (semantic, symbolic, figural) and (2) the ways that information is organized in each exercise (units, classes, relations, systems, transformations, implications, elaborations). These two dimensions are described in detail in Part III of this manual. The activity-by-activity lesson guides presented in Part IV include the specific objectives for each activity and suggestions for follow-up activities designed to develop further the specific abilities toward which the respective exercises are directed. Although many of the objectives and suggestions for follow-up activity are directed toward the development of traditional skills in language arts, these skills are always “piggybacked” on the four major creative thinking skills. Field testing has shown that students are more motivated to pursue traditional language arts skills when such skills are based upon activities that make use of their own creative products.

Although the purpose of each manual in this program is to provide teachers with a systematic set of activities aimed at promoting creativity in children, a second and equally important objective is to help teachers unlock their own potential for more creative teaching. In almost every school where these activities were field tested, participating teachers began to develop their own materials and activities for creativity training. In many cases, the teacher-made activities were highly original and skillfully integrated with various aspects of the regular curriculum. Once teachers understood the general nature of the creative process, they were quickly able to apply the same basic strategies to other areas of the curriculum. Therefore, teachers should view this creativity training program as a starting point that will eventually lead to the development of a “creativity orientation” on the part of teachers. This orientation will assist teachers in finding numerous opportunities for creativity training in a wide variety of learning situations.

### Description of the Program

Each manual in the *New Directions in Creativity* program consists of twenty-four types of creativity training activities. Two activity sheets, both containing one or more exercises, are provided for each type of activity, and each type is classified according to the kinds of information involved in the exercises and the ways that information is organized. Each activity is further classified according to the level of response required. This classification scheme is based on Guilford’s model of the structure of human abilities. Teachers who wish to know more about this model should refer to Part III of this manual. (An overview of the activities in this manual, listing the types of activities according to Guilford’s classification scheme appears on page 22.)

**Mark A and Mark B:** Most of the activities in the primary volumes have been designed so that children can respond with either words or pictures. This approach allows children who cannot yet express themselves in writing to communicate their creative ideas through pictures. Suggestions for alternative modes of expression, such as dictating responses to a teacher’s aid or to a tape recorder are also included. The primary volumes are also designed to develop the psychomotor abilities of younger children through manipulative and dramatic activities, and the teaching suggestions present ideas for using primary teaching aids such as flannel boards, chart paper, scissors, and paste.

The format of the primary activities attempts to take account of the developmental level of the young child. Illustrations on the exercise sheets are generally larger and less complicated than the drawings in the middle-grade books, and fewer responses are required to allow for the gross motor coordination of the primary-aged youngster. Page directions are simpler, and greater reliance is placed on illustrations than on written directions. The lesson guides for the primary volumes have been designed so that children can respond with either words or pictures. This approach allows children who cannot yet express themselves in writing to communicate their creative ideas through pictures. Suggestions for alternative modes of expression, such as dictating responses to a teacher’s aid or to a tape recorder are also included. The primary volumes are also designed to develop the psychomotor abilities of younger children through manipulative and dramatic activities, and the teaching suggestions present ideas for using primary teaching aids such as flannel boards, chart paper, scissors, and paste.

**Mark 1, Mark 2, and Mark 3:** Most of the activities in the middle-grade volumes deal with semantic information. Some symbolic activities that involve the use of words have been included, and a few figural activities have also been included to help students understand that creativity skills can be applied to both verbal and nonverbal information.

Activities dealing with information that is organized into units, classes, or relations generally require students to (1) fill in blanks with unspecified words,
(2) manipulate given words and figures, or (3) complete short statements. These activities are considered warm-ups for higher level activities, and they are generally directed toward giving students practice in the basic creativity skill of brainstorming. Brainstorming activities help students free their thinking processes from the restraints that usually hinder creativity and provide an effective means for promoting a free and open classroom atmosphere.

The higher level activities deal with information that is organized into systems, transformations, implications, or elaborations. The major difference between the two levels of activities is that fewer specifications are given for the kinds of responses required in the higher level activities. These responses are generally more open-ended, and fewer restrictions are placed on the nature of the products developed by students. Although all activities provide youngsters with opportunities to express themselves in a relatively free and unrestricted manner, the program will be most effective if students pursue a balanced combination of the various types of activities. Each type is designed to develop and give practice in the use of certain creativity skills, and the skills developed by the warm-up activities are necessary for maximum development of the more advanced kinds of creative thinking necessary for the higher level activities. Suggestions for the most effective sequencing of activities are included in Part II of this manual.

Grade and Ability Levels

Although no specific grade level has been assigned to the respective volumes, field tests have shown that Mark A is most successful with children in kindergarten and first grade and that Mark B works best with second- and third-grade youngsters. An attempt was made to separate activities in the primary volumes so that the first book would contain exercises for children who have not yet developed reading and writing abilities or who are in the beginning stages of development in these areas. The exercises in Mark B were designed in accordance with the level of communication skills that typically are taught in second and third grades.

Field tests have shown that Mark 1, Mark 2, and Mark 3 are most successful with students in grades four through eight. The open-ended nature of creativity training activities has provided an opportunity to develop a truly nongraded program, and many of the exercises have been used successfully with students at several grade levels. When there are no “right” or “wrong” answers, each student sets his or her own level of response. The responses of bright youngsters are often characterized by higher degrees of fluency, flexibility, originality, and elaboration, but even the slowest child is able to respond in a way that is appropriate to his or her own developmental level. It may be necessary for teachers to read some of the directions to students and to supervise their work more closely until they catch on to the nature of the various tasks. To help both younger and slower students grasp the main idea, most of the introductory exercises include illustrative examples. These examples are useful in helping students who have some trouble reading the directions or getting started on some of the more difficult exercises. Most of the exercises are not too difficult for younger or slower students, but because of the open-ended nature of the exercises, teachers must carefully explain directions, and they may have to provide a few examples of their own in order to start students off on the right track.

An important feature of this creativity training program is that a youngster can respond to each activity in terms of his or her own background and experience. Because the program is not based on the student’s ability to recall factual information, each student can express his or her creativity by drawing on his or her own knowledge and experiences. Many writers have pointed out that the child’s own experiences and activities are the principal agents of his or her development and that no matter how “primitive” a child’s level of development, he or she can extend his or her mental abilities by probing, manipulating, and applying his or her own experiences to new kinds of materials and situations. This idea is one of the fundamental principles on which the constructivist learning is based, and field tests with the New Directions in Creativity program have shown that students from so-called disadvantaged backgrounds are able to use their own experiences to complete most of the activities in the program.

Insofar as individualized programming is concerned, it is important for teachers to carefully consider each child’s preferences. Some students may show a preference for semantic activities, whereas others may prefer to respond figurally or symbolically. Similarly, certain children may like exercises with a less complicated response format (units, classes, relations), whereas others may show a preference for more complicated modes of expression such as poetry or story writing. The classification system which underlies the New Directions in Creativity program provides a unique opportunity for teachers to study children’s learning style preferences and to adapt accordingly. The program will be most successful if teachers respect children’s preferences and avoid forcing every child to complete every activity.
GENERAL STRATEGIES FOR USING THE PROGRAM

Although a great deal has been written about fostering creativity in the classroom, relatively few basic teaching strategies have been effective in encouraging creative development. This section of the manual will describe the basic strategies that teachers have found most helpful in using the New Directions in Creativity program. Although the materials have been designed to require minimum preparation time, the importance of the teacher’s role cannot be overemphasized. In describing the role of teachers in this regard, Starko (1995) emphasized the distinction between teaching for the development of creativity versus creative teaching. She concluded that effective teachers who develop students’ creative thinking know how to teach techniques that “facilitate creative thinking across disciplines and provide a classroom atmosphere that is supportive of creativity” (p. 17). Other studies, including a meta-analysis study by Rose & Lin (1984) and a research synthesis by Torrance (1987), indicate that creativity training is associated with increased creativity, involvement in creative activities, and positive feelings toward school.

Brainstorming and the Fluency Principle

In most cases, the first thought that comes to mind in seeking the solution to a difficult problem is seldom the most original idea. Therefore, fluency, defined as the ability to produce several ideas or possible solutions to a problem situation, is an important condition for creative production. The fluency principle, which underlies the development of this creativity training program, maintains that fluency is a necessary, though not sufficient, condition for originality. Although there are some cases on record of highly creative products that have resulted from sudden inspirations, research on creativity in both children and adults strongly supports the fluency principle. Studies by Archambault (1970), Paulus (1970), and Baer (1993) have shown that initial responses to a given problem tend to be the more common ones and that the greater the number of answers generated, the higher the probability of producing an original response (original in the sense that fewer students come up with that response). Therefore, a hypothetical curve of creativity for a given task or activity (see Figure 1) would show a gently sloping gradient with an increase in originality being related to an increase in the number of responses. For example, if we asked a group of students to list all of the utensils that people might use to eat with, their initial responses would no doubt include common utensils such as forks, spoons, and knives. But if we encouraged them to increase their lists by using their imaginations (“Suppose you didn’t have any forks or spoons. What could you use?”), students would begin to explore some possible alternatives. They might suggest such items as sharpened sticks, shells, and bottle caps. If we compared the lists of several youngsters, we would find that most of the initial answers are quite common—that most of the students have given the same responses. As the lists grow longer, we would find more divergence occurring, and the probability of a youngster’s producing an original response increases. In other words, quantity

![Figure 1. Hypothetical curve of creativity.](image)
breeds quality, and research has shown that individuals who produce a large number of ideas are more likely to produce ideas that are more original.

Each manual in this program attempts to capitalize on the fluency principle by including a number of exercises that generate a large number of responses. In opposition to the techniques of convergent production discussed earlier, these exercises have no right answers. Rather, they are designed to encourage the student to produce a large quantity of responses, and, hopefully, practice in this mode of thinking will help free the learner from previously acquired habits which predispose him or her to rely mainly upon recall and convergent thinking.

The basic technique for increasing fluency of expression is called brainstorming. The first step in this process is to provide students with a problem that has many possible alternative solutions. Brainstorming can be carried out individually or in group sessions. During the early stages of a brainstorming activity, students should write or verbalize all thoughts and ideas that come to mind, no matter how silly, way-out, or wild the ideas may be. The best way to promote free-wheeling and offbeat thinking is to value quantity and withhold criticism and evaluation until students have exhausted their total supply of ideas related to a given problem. This principle, known as the principle of unevaluated practice, is further discussed in the section dealing with evaluation (pp. 10-12).

The following is a list of general questions (adapted from Arnold (1962)) that can be used to spur students’ thinking during brainstorming sessions:

**Other Uses**

- Can it be put to other uses as is?
- Can it be put to other uses if it is modified?

**Adaptation**

- What else is like it?
- What other ideas does it suggest?
- What could you copy?
- Whom could you imitate?

**Modification**

- What new twist can you make?
- Can you change the color, size, shape, motion, sound, form, odor?

**Magnification**

- What could you add?
- Can you add more time, strength, height, length, thickness, value?
- Can you duplicate or exaggerate it?

**Minification**

- Can you make it smaller, shorter, lighter, lower?
- Can you divide it up or omit certain parts?

**Substitution**

- Who else can do it?
- What can be used instead?
- Can you use other ingredients or materials?
- Can you use another source of power, another place, another process?
- Can you use another tone of voice?

**Rearrangement**

- Can you interchange parts?
- Can you use a different plan, pattern, or sequence?
- Can you change the schedule or rearrange cause and effect?

**Reversibility**

- Can you turn it backward or upside down?
- Can you reverse roles or do the opposite?

**Combination**

- Can you combine parts or ideas?
- Can you blend things together?
- Can you combine purposes?

These are only some of the questions that teachers and students can use to stimulate creative thinking during the brainstorming activities included in the program. Once students have learned the basic brainstorming technique, you should encourage students to approach each activity with an idea-finding frame of reference. The section “Introducing the Primary Activities” (pages 12-14) is especially designed to teach the brainstorming process through active involvement in both group and individual brainstorming activities. As a general rule, you should always encourage students to go as far as they can in completing the exercises on
The activity sheets and the follow-up activities. Students may need to go beyond the spaces provided or you may need to extend time limits when youngsters are engaged in a highly productive activity. Keep in mind that brainstorming is a skill that grows through practice, and students will develop this skill if they know you place major value on the quantity rather than the quality of their responses.

The Principle of Mild Competition

Although a great deal has been written about the dangers of high-pressure competition in the classroom, research with various curricular materials has shown that mild competition is a positive nutrient in motivating students to become involved in learning activities. The use of simulation and learning games to promote learning is based on the finding that gamelike activity is one of the child’s preferred ways of learning. Several researchers have investigated the relationship between children’s play and creativity. For example, Li (1985) found significant gains in preschool children’s creativity after being exposed to play training. Mellou (1995) examined the literature on the relationship between dramatic play and creativity and concluded that most of the research supports a positive relationship between them, noting the alternative symbolic constructions and flexibility common to both. In a research synthesis on creativity processes in children that are predictive of adult creativity, Russ (1996) also concluded that the relationship between children’s play and creativity is strong.

We have made an attempt to capitalize on the motivational benefits of gamelike activity by suggesting that certain exercises be carried out under mildly competitive conditions. This approach will introduce an element of excitement into the program and give youngsters an opportunity to pursue classroom activities in their preferred manner of learning.

To avoid the dangers associated with high-pressure competition, you should use caution when employing the mildly competitive mode. You should observe the following general rules whenever you introduce competition into creativity training activities.

1. Group competition should be used rather than individual competition.

2. Grades or other material rewards should never be associated with competitive activities. Students will derive satisfaction from the competitiveness itself and the excitement of winning or trying to win.

3. Teams should continually be rearranged in a way that allows all youngsters an opportunity to be on a winning team.

There are several ways of arranging teams for competitive classroom activities—row against row, boys against girls, or everybody wearing a certain color on one team, to name a few. If some youngsters find it difficult to perform under competitive conditions or if some put undue pressure on others who slow the team down, it may be wise to ask these students to serve as moderators or scorekeepers because “you need their help.” A good way to help build up enthusiasm is to get involved in competitive activities on an equal basis with students. When you join a given team, the students will no doubt look to you for leadership, but you should try to be just another member of the team and avoid contributing more than a proportionate share of the responses. You will, of course, have to experiment to determine the best ways for operating in the mildly competitive mode. A good deal of the art of teaching is involved in knowing your students and in using classroom management procedures that are especially applicable to a given group.

A general strategy that you can use in follow-up discussions of the exercises is intergroup competition. Prior to assigning a particular exercise or after an exercise has been completed, divide the class into several small groups which can then compete with each other on the basis of (1) the greatest number of team responses and (2) the most original responses (i.e., responses that other teams did not think of). A team’s score would consist of one point for the total number of responses generated by all team members (including duplications) minus a given number of points for each response that appears on another team’s list. Slowly increasing the number of points deducted for responses that are common among teams will encourage the students to strive for originality, as well as quantity, of responses. Students might like to keep a score card on the bulletin board to record team progress. Competitive follow-up activity of this type is probably most appropriate for exercises that emphasize the quantity of responses rather than the production of a story or single product.

The Principle of Cooperation

Researchers have found that activities involving team collaboration help youngsters increase their creative productivity. You should allow students to work on some activities in pairs or in small groups, and students should direct their efforts toward the production.
of group responses, as well as individual responses. Group activities provide an opportunity for youngsters to learn cooperation and the benefits of bringing several minds to bear on a particular problem. They also provide opportunities for you to develop leadership skills and help less creative youngsters experience success by working cooperatively with more highly creative individuals. Since you can use many of the activities for both individual and group work, it is important for you to review each activity sheet before using it with students. Field tests have shown that the classroom teacher is the best judge of the conditions under which the class works best, and therefore the activities have not been classified as individual or group activities.

The best way to maximize the effectiveness of the New Directions in Creativity program is to vary continually the strategies for using the activities in the classroom. You should use competitive and cooperative modes as alternatives to the individual mode and use students as a guide in selecting the approach for a given activity. Part IV of this manual includes activity-by-activity lesson guides and suggestions for alternative ways of using the activities and follow-up activities. You should, of course, employ your own creative teaching strategies and develop new strategies by combining, modifying, and adapting suggested approaches.

Evaluation: The All-Important Classroom Atmosphere

The success of any creativity training program depends on the amount of freedom and flexibility that exists in the classroom. The very nature of creativity requires that students be allowed to express their thoughts and ideas in a warm and open atmosphere. Teachers should encourage their students to play with ideas, laugh, and have fun without worrying about being graded and evaluated when they are engaged in creativity training activities. Rogers (1969) emphasized the importance of freedom from the threat of evaluation and asserted that creativity can be fostered by establishing psychological safety through the unconditional acceptance of each individual’s worth. When you encourage youngsters to express themselves in an uninhibited manner, it is extremely important that you also provide them with a climate that is free from external evaluation and the critical judgments so often associated with schoolwork. The importance of providing this free climate is supported by the research of Amabile (1996) and Lepper, Greene, and Nisbet (1973) who found that extrinsic motivation undermines students’ creativity, and Amabile identified factors of intrinsic motivation that impact students’ performance on creative tasks. Since no right answers are prescribed for this creativity training program, students have the opportunity to work in an open atmosphere without the constant threat of failure hanging over their heads.

The most effective way to open up the classroom atmosphere is to minimize formal evaluation and lead students in the direction of self-evaluation. In the real world, people often judge things in terms of self-satisfaction and the degree to which they, as individuals, like or dislike the things they do or the products they produce. The only way that we can teach students to become self-evaluators is to give them numerous opportunities to judge their own work and to modify their work when they are not satisfied with it. Thus, this program does not include a formal grading system, and the suggestions that follow are designed to help develop strategies for (1) valuing students’ original products and (2) teaching youngsters the techniques of self-assessment.

The principle of unevaluated practice simply means that judgment is deferred until the individual has had an opportunity to explore several possible answers or solutions to a given problem. The principle of deferred adjustment, first espoused by Osborn (1963), has consistently been shown to be an essential ingredient for creative thinking. Several researchers, such as Amabile (1985) and Baer (1993), have found evidence to support this claim. The main purpose of unevaluated practice is to free children from the fear of making mistakes.

Creating such an atmosphere in the classroom is far easier said than done, but there are some specific strategies that teachers can use to help promote an environment that is more supportive of creativity. The most important strategy is to be tolerant and respectful of children’s ideas, questions, and products. You should show interest, acceptance, and excitement toward student responses and avoid expressions of shock, surprise, annoyance, or disinterest. Above all, never laugh at or make light of a youngster’s responses and try to discourage teasing and laughter from other students. Healthy amusement and friendly competition will help promote a supportive atmosphere, but ridicule and scowls will have a negative effect. Each student must come to believe that his or her ideas are as valuable as the ideas of others.

One of the hardest things to control in the classroom is the spontaneous laughter that may arise when a student says something that is somewhat unusual. A good way to overcome this problem is to legitimatize laughter by showing students that you also have some way-out ideas and that you do not mind if the students laugh when you express them. You will note that in
the section “Introducing the Primary Activities” the teacher is asked to demonstrate use of a pogo stick. This activity has been found to be an extremely effective way to legitimatize laughter and show students that you are not afraid to express unusual ideas or actions. Whenever possible, participate in written and oral activities and set the pace by contributing your own unusual responses. Your contributions will help students realize that you are a human being and that you are not afraid to express yourself freely. Remember, you set the limits on student behavior. If you actually participate in creative activities, students will learn that you value creative behavior, and they will quickly begin to display their own creative thoughts.

Another strategy aimed at promoting an environment that encourages students to be creative involves the principle of rewarding desired types of responses. If you show generous praise for quantity and unusualness of responses, students will quickly recognize the types of behavior that you value and they will strive to achieve these types of behaviors.

You can increase creative production by combining the fluency principle with the reward principle and the principle of unevaluated practice. In follow-up discussions to the activities, you should praise individual responses and give generous praise to the sheer quantity of response. Remember that an increase in fluency will almost always result in a corresponding increase in originality. Consequently, you should develop a repertoire of fluency-producing, enthusiastic comments, such as “That’s really good. Can you think of a few more?” and “Let’s see who can come up with five more possible titles for Bill’s picture.” Don’t be afraid to make up a few new words (for example, “fantabulous,” “super-great”) to show your enthusiasm. Gently probing youngsters for more and more responses will help them develop a fluency set; and, hopefully, practice in this mode of thinking will carry over to other areas of learning and experience.

You should make every effort to avoid using phrases or expressions that are natural killers of creativity. Examples of such phrases include:

Don’t be silly.
Let’s be serious.
That’s ridiculous.
Quiet down.
The principal won’t like it.
Let’s be practical.
You should know better.
What’s the matter with you?
That’s not our problem.

We’ve tried that before.
That’s not part of your assignment.
That’s childish.
A good idea but . . .
It won’t work.
Don’t be so sloppy.

One of the underlying purposes of the New Directions in Creativity program is to help youngsters learn how to evaluate their own creative products. One of the great tragedies of traditional school instruction is that students almost always look to the teacher for evaluation and approval. By so doing, they fail to develop a system of internal self-evaluation. And yet, psychological studies have revealed that each person has a need to be his or her own primary evaluator. The nature of creativity is such that the individual produces something that is new, unique, or novel for him or her at a particular time. To break away from social pressure toward ordinary and common production, a person must place his or her own opinions and feelings above those of others. He or she must be satisfied with his or her products and feel that they express a part of his or her feeling, thoughts, and ideas.

One of the primary tasks for teachers using this program is to help youngsters learn how to make judgments about their own work. This task is undoubtedly one of the most difficult of teaching, but there are a few simple guides that you can use to help students evaluate their own work. When students look to you for judgment, you might ask:

What do you think about it?
Do you feel good about it?
Would you like to work on it some more?
Why do you like (or dislike) it?
What things (criteria) are important to you?
How would you compare it to the work you did last time?

Encourage students to compare their own products by ranking them and selecting the ones they like best. Students should learn that you respect their judgment and will not overrule that judgment by placing your evaluation above their own. This behavior does not mean that you should not comment and make suggestions, but students should understand that you are stating your opinion and there is no reason to assume that it is more important than theirs. Since there are no right answers to creativity exercises, and since students will not be graded on their creativity or creative products, the program provides a real opportunity for students
to develop self-evaluation techniques. The key word in this process is trust. If students think that you will consider their creative activities in their final grades, they will constantly look to you as the ultimate source of judgment.

Peer evaluation can also provide students with a source of feedback. This feedback should always be informal, and it should be related to the type of product involved. For example, in writing a humorous ending for an unfinished story activity, if a student elicits laughter from the class, he or she will know that his or her efforts have been effective. You should encourage students to add their own praise to other children’s responses, and their spontaneous reactions should be a regular part of all follow-up discussions.

A final consideration in the creation of a free and open classroom atmosphere is the acceptance of humor and playfulness. When you purposefully ask youngsters to strive for clever and unusual responses, a good deal of healthy noise and whimsical behavior is likely to result. The creative adult has the same uninhibited expressiveness and spontaneity found in happy and secure children. Creativity time should be a fun time, and playfulness, impulsiveness, humor, and spontaneity are all part of having fun.

**How to Use the Primary Activities**

Although many of the primary activities are most effective when used with groups, they can also serve as independent studies or as supplementary classroom activities. Field tests have shown that the program can be used continuously for a given period of time or on a one- or two-day-a-week basis throughout the school year. The suggested follow-up activities are an important part of the program. Together with the activity sheets, they provide a year-long supply of creativity training exercises. As indicated in Part I, the program is not intended to be an end in itself. Rather, it is designed to assist teachers in learning the nature of creative problem solving and in developing their own creativity activities. The program will yield maximum benefits if you follow a plan that uses a balanced combination of activity sheets and suggested follow-up activities.

Because of variations in the needs of various age and ability groups and because of differences in individual and group preferences, the “Suggested Sequence for Mark A Activities” (p. 21) should not be considered a rigid lesson-by-lesson sequence. It is intended to serve as a broad guide, and you should feel free to modify the sequence to serve the individual interests and learning preferences of particular groups.

After students have become familiar with the various types of activities, you should give them opportunities to decide which activities they would like to pursue. Student interests should also guide you in determining which type of follow-up activities to use in future training sessions.

As students progress, you should encourage them to use the skills they have developed in previous activities. For example, you might introduce an unfinished story activity by suggesting the first sentence of a possible ending to the story and asking students to suggest synonyms for specific words that would make the sentence more precise, colorful, and imaginative. When students are working on advertising or promotion activities, you should make them aware of the use of homonyms and rhyming words in slogans and jingles and remind them of the rhyming exercises they completed earlier.

The general plan for sequencing primary activities takes account of (1) a balance between semantic, symbolic, and figural material, (2) a balance between units, classes, relations, systems, transformations, and implications and elaborations, and (3) the level of difficulty and logical relationships between certain activities. Since there are two activity sheets for each type of activity, you can work through the suggested sequence twice. In each set of exercises, comprehensive directions and sample responses (when applicable) are always included on the first activity sheet. Therefore, for any given exercise, you should always use the activity sheet lettered “a” before the activity sheet lettered “b.” By the time students get to the second activity sheet, they will have caught on to the nature of the exercise, and you can refresh their memory by referring to the first activity sheet. Occasionally, examples have been included on the second activity sheet to help provoke new ideas.

Each exercise should take approximately one class period, although some of the exercises that involve creative writing may require more time. You may want to assign for homework exercises that cannot be completed in class. However, it is necessary to have group discussions of all material that is completed outside of class as an important part of the creative process involves sharing creative products with others.

You can use the suggested follow-up activities included in the lesson guides any time after the students have completed the first activity sheet for each activity. Whenever students show a preference for a particular type of activity, capitalize on their enthusiasm by developing similar activities of the type suggested in the follow-up sections of the lesson guides.
Introducing the Primary Activities

The basic strategy for introducing primary activities consists of freeing the classroom atmosphere from the usual constraints often associated with convergent production. Allow approximately one class period for the introductory session. It is extremely important for students to learn to appreciate questions and activities for which there are no right answers. You can introduce this concept by contrasting a convergent type of question with a divergent one. Before distributing the first activity sheet, you might say something like the following (but do not read it verbatim or sound too rehearsed):

Today we are going to begin practicing a new kind of thinking. This kind of thinking will help us learn how to explore many different kinds of solutions to a given problem. Some problems and questions have only one right answer, but there are also many problems and questions that have hundreds of possible answers.

Suppose I asked you, “In what year did Columbus discover America?” (Wait for an answer and write it on the chalkboard.)

Are there any other possible answers to this question? (General conclusion should be negative.)

Now suppose I were to ask you, “What are all of the possible ways that you might have come to school this morning?” (Call on youngsters and list responses on the chalkboard.)

Students will probably give some fairly common responses (“walk,” “bus,” “car,” “bicycle”). At this point, you might say:

Remember, I said all of the possible ways that you might have come. Use your imagination. Let your mind wander, even if you think the method for coming to school is silly or way-out. How about by donkey or pogo stick? (Add these to the list on the chalkboard.)

This point is extremely crucial to introducing the creativity training program. By suggesting the donkey and the pogo stick, you have accomplished three very important objectives. First, you have conveyed the idea that answers need not be feasible, practical, or realistic. Second, you have let youngsters know that you will accept these kinds of answers. Third and perhaps most important, you have let the youngsters know that you are capable of some way-out ideas. You can be emphasize this point by grabbing a yardstick (conveniently placed nearby beforehand) and improvising with a few hops to demonstrate a pogo stick. Students will no doubt become a little noisy, but it is very important to tolerate this reaction. If you hush them, the whole atmosphere of freedom will be lost, and they will subjectively think that this new kind of thinking is the same old game—the teacher questions and students answer.

After your examples, students may give a wide variety of answers. Let them call out their answers (rather than raising hands) as you write them on the chalkboard. Prompt students if necessary:

Any other animals that you might come to school on? How about an airplane or a rocket? Or being dropped from a plane with a parachute?

A second crucial factor at this point is the generous use of praise on your part. Enthusiastic comments such as “good,” “great,” and “fantastic” will help youngsters open up. Do not call on students who are not taking part. It takes some youngsters longer than others to trust the teacher and his or her classmates in this type of situation. The main idea is to let students know that you like what is going on and that you are having fun. When the flow of responses begins to slow down, say:

Let’s go one step farther. Suppose you could change your size or shape. Can you think of some other ways that you might possibly come to school?

If no one responds, say:

Could you make yourself very tiny and come in your brother’s lunch box? Or, could you change to a drop of water and come in through the drinking fountain?

Continue to fill the chalkboard as long as the youngsters are generating responses. When you finally call a halt, say:

I guess there really are many questions and problems that have several possible answers. Do you think this kind of thinking is fun?

From time to time, we are going to be working on some activities like the one we just did. The main purpose of these activities will be to practice answering questions and solving problems that
have many possible answers. We will be using our imaginations to come up with some clever new ideas.

At this point, distribute the first activity sheet for “Thinking about Things” and read the directions in the manual to the students. If you have any doubts about youngsters’ understanding the directions, ask if there are any questions. Then ask the students to complete the first exercise.

After they have finished, allow some students to discuss their responses. Ask, “How many had that idea?” and after a few students have shared their entire lists, ask if anyone has any responses that have not yet been mentioned. Praise unusual responses from individuals, and praise the entire group for catching on.

Follow the same procedure for the second exercise. It is especially important to be tolerant of unusual responses, increased noise levels, and occasional bursts of laughter. A comment such as “Let’s be serious” could destroy the entire atmosphere of freedom to express oneself. If time permits, you may wish to pursue one of the follow-up activities suggested in the lesson guide.
RATIONALE UNDERLYING THE PROGRAM

The Need for Creativity Training Programs

Although interest in the identification and development of creativity has become one of the vital concerns of teachers, curriculum developers, and leaders in education, the actual effectiveness of schools in helping children realize their creative potential can be judged, at very best, as questionable. More than forty years of intensive research into the nature of creativity has yielded enough understanding about this dynamic process to enable educators to begin translating some of the research findings into classroom practice. The sad fact remains that in spite of dozens of books about creativity, hundreds of research studies, and thousands of training programs and workshops, the development of creative potential is still a largely ignored aspect of a child’s total repertoire of acquired behaviors. At least three major problems seem to account for the failure to translate existing knowledge and understanding about the creative process into meaningful classroom practice.

The first problem is a lack of agreement among educators about the definition of creativity and its distinctiveness from other cognitive behaviors. A great deal of research devoted to this issue has led to conflicting conceptions of creativity, such that Davis (1999) concluded, “There are about as many definitions, theories, and ideas about creativity as there are people who have set their opinions on paper” (p. 40). Despite different views, however, most theorists agree with at least two generalizations about creativity. First, several research studies have supported the threshold concept of creativity, namely, a low to moderate relationship between creativity and intelligence (Getzels & Jackson, 1962; Simonton, 1988; Walberg & Zeiser, 1997; Wallach & Kogan, 1965). Highly creative individuals have generally been found to be above average in intelligence, but high intelligence does not necessarily insure high creativity. In addition, a number of studies (Jaben, 1980, for example) have found that children of all ability levels, including students with special needs, are capable of creative thinking. In summarizing this issue, Davis (1999) said, “It is absolutely true that despite genetic differences in our cognitive and affective gifts, everyone can become a more flexible, imaginative, and productive thinker” (p. ix). Thus, we can conclude that all children can benefit from systematic programming in this area.

The second generalization relating to defining creativity is that, rather than being an independent process, creativity consists of multidimensional processes involving interactions between the individual and his or her environment. These processes may differ from one another to such a degree that we must consider verbal creativity, creativity in problem solving, and creativity in the nonverbal arts as essentially different psychological phenomena. In other words, scientific creativity and creative problem solving may require different explanations than creativity in areas such as painting, music, and writing. And because of differences between individuals and their respective environments, what is a routine task for one person may very well be a creative experience for another. Since one of the basic assumptions underlying the development of the New Directions in Creativity program is that all people possess the ability to think creatively in varying degrees, the main purpose of the program is to assist youngsters in generating responses that are creative for the individual student at his or her present level of mental functioning. It is of course hoped that such experiences in creative thinking will help students develop a characteristic way of looking at things that will ultimately result in the creation of ideas and products that are truly original and useful for the culture at large. A good deal of research evidence that shows that people who have engaged in systematic creativity training exercises can increase their capacity for creative thinking in a variety of fields (Baer, 1996; Rose & Lin, 1984; Torrance, 1987).

Although this approach to the definition of creativity is relativistic rather than absolute, it is in
keeping with Guilford’s (1967) conception of divergent thinking (discussed on pages 16-19) and Torrance’s (1965) analytic description of the process which places creativity in the realm of daily living experiences rather than reserving it for the rarely achieved heights of creation:

I have tried to describe creative thinking as taking place in the process of sensing difficulties, problems, gaps in information, missing elements; making guesses or formulating hypotheses about these deficiencies; testing these guesses and possibly revising and retesting them; and finally in communicating the results. I like this definition because it describes such a natural process. Strong human needs appear to be at the basis of each of its stages. If we sense any incompleteness, something missing or out of place, tension is aroused. We are uncomfortable and want to do something to relieve the tension. As a result, we begin investigating, asking questions, manipulating things, making guesses, and the like. Until the guesses or hypotheses have been tested, modified, and retested, we are still uncomfortable. Then, even when this has been accomplished, the tension is usually unrelieved until we tell somebody what we have discovered. Throughout the process there is an element of responding constructively to existing or new situations, rather than merely adapting to them. (Torrance, 1965)

For the purposes of this program, creativity is defined as follows:

Creativity is the production of an idea or product that is new, original, and satisfying to the creator or to someone else at a particular point in time, even if the idea or product has been previously discovered by someone else or if the idea or product will not be considered new, original, and satisfying at a later time or under different circumstances.

The second problem that has hampered efforts to promote creative thinking in the classroom has been the shortage of validated curriculum materials in this area. This shortage was the basis for one of the research challenges that emerged from the Sixth Utah Creativity Research Conference (Taylor and Williams, 1966), and was reemphasized in a study by Feldhusen, Bahlke, and Treffinger (1969). Among the many suggestions offered by theorists and researchers who have devoted attention to this problem has been a call for instructional materials that give youngsters practice in opening up their minds and using modes of thought that are not characteristically developed in traditional curricular materials. An overwhelming proportion of existing curricular material places major emphasis on the acquisition of factual information and a kind of thinking that focuses on locating the one right solution to a problem. Although these activities are valuable in the total development of the learner, they often dominate the curriculum and are usually pursued at the expense of other aspects of development. Thus the development of higher level thought processes such as creativity simply does not take place or is an accidental by-product of instruction.

The third major inhibitor to the development of creativity in children has been a lack of understanding about the nature of creativity on the part of many classroom teachers (Williams, 1964; Eberle, 1966; Guilford, 1967). In some cases, this lack of understanding has resulted in the severe inhibition of creative thinking in the classroom and even discrimination against students who display creative behavior.

Although the development of an effective program of teacher training is beyond the scope of this manual, Part II presents a number of practical suggestions for teaching strategies. These suggestions are not intended to serve as a substitute for a course or workshop in creativity, nor will they provide the teacher with the breadth of information that they could gained through intensive reading in this area. Rather, the main purpose is to call attention to the characteristics of creative teachers and to point out a number of widely accepted principles for rewarding creative behavior.

Each manual in the *New Directions in Creativity* program provides a set of experiences that are systematically and purposefully directed toward developing certain creative thinking abilities. The program is not offered as the only approach to this problem, nor is it maintained that the program will develop all of the many dimensions of creativity that seem to exist. Rather, it is one possible approach to creativity training that has been developed within a specified framework. This framework is described in the following section.

The Structure of the Intellect Model

The *New Directions in Creativity* program represents an attempt to translate one aspect of Guilford’s Structure of the Intellect Model (1967) of human abilities into classroom practice. This model, developed through factor-analytic methods at the University of Southern
California Psychological Laboratory, has been viewed by many educators as a potentially powerful tool for bringing about needed changes in the curriculum. Although the program focuses on only one dimension of the model, a brief overview of the entire system will provide teachers with the necessary frame of reference for understanding the approach used in this curriculum package.

The Structure of the Intellect Model (see Figure 2) is a three-dimensional classification system that is designed to encompass and organize 120 possible abilities according to (1) the types of mental operations employed in the act of thinking, (2) the types of contents involved in the thinking process, and (3) the types of products that result from the act of thinking.

*(1) Operations*

The operation dimension of Guilford's model consists of five major types of intellectual activities or processes of mind—the things that the organism does with the raw materials of information. These five categories represent the mental operations that we as human beings can learn to use in processing the information with which we come into contact as we go about living and learning.

*Cognition* is the mental process involving immediate discovery, awareness, rediscovery, or recognition of information in various forms. *Understanding* and *comprehension* are terms that are commonly used to describe the act of cognition.

*Memory* is the process that deals with the retention or storage of information. It is accompanied by an ability to bring the information out of storage in response to cues or stimuli that bear some relationship to the stimuli presented when the information was originally stored.

*Convergent production* is the process of generating information from given information, where the emphasis is on achieving the conventionally accepted outcome. It is quite likely that the given information (cue) fully determines the response. Convergent production involves
finding the correct solution to a problem by manipulating given information rather than merely retrieving information from memory; however, both memory and cognition are involved in convergent production.

**Evaluation** is the mental operation that refers to reaching decisions or making judgments concerning the criterion satisfaction (correctness, suitability, adequacy, desirability, etc.) of information. This operation implies a sensitivity to error and a judgment of the relative nearness of things to points on a continuum or set of standards.

**Divergent production**, the operation upon which this creativity training program focuses, involves the generation of information from given information, but here the emphasis is on variety and quantity of output from the same source. This operation is most clearly involved in aptitudes of creative potential and will be discussed in greater detail later in this section.

**(2) Contents**

The content dimension consists of the following four broad classes of information that are discriminable by the organism:

**Figural content** consists of information in concrete form, as perceived or recalled in the form of images. The term *figural* implies some degree of organization or structuring. Different sense modalities may be involved, such as seeing, touching, hearing, and smelling. Content information does not represent anything but itself—that which is sensed and discriminated.

**Symbolic content** involves information in the form of signs that have no significance in and of themselves. Letters, numbers, musical notations, and other code elements are examples of symbolic content. Objects, figures, and shapes are also examples of this type of content.

**Semantic content** is information in the form of meanings to which words commonly become attached. Semantic material is the major element in verbal thinking and in verbal communication (writing and speaking).

**Behavioral content** consists of essentially nonverbal information that is involved in human interactions, such as the awareness of attitudes, needs, desires, moods, intentions, perceptions, and thoughts of other persons and of ourselves. The identification of abilities involving this type of content has not been as precisely defined as those abilities involved in figural, symbolic, and semantic content.

**(3) Products**

The product dimension of the Structure of the Intellect Model consists of the organization or form that information takes when it is processed by the human mind. The following six products, as defined by Guilford, are the result of interaction between our senses and the world around us:

**Units** are relatively segregated or circumscribed items of information that have singular character. For example, one chair would constitute a unit.

**Classes** are recognized sets of items of information grouped together by virtue of their common properties. Thus several chairs would form a class.

**Relations** are recognized connections between units of information based on variables or points of contact that apply to them. For example, a chair and a desk would constitute a relation.

**Systems** are organized or structured aggregates of items of information that are grouped together because of the interrelatedness or interaction of their respective parts. Systems are combinations of units, classes, and relations that have some total function. An example of this category is a “school system.”

**Transformations** are changes of various kinds of existing or known information. Transformations involve the redefinition or modification of existing ideas, products, or materials.

**Implications** and **elaborations** consist of extrapolations of information in the form of expectancies, predictions, known or suspected antecedents, commitments, or consequences. Asking questions, the answers to which should help people see a particular problem more clearly, suggests implications from known information.

The **New Directions in Creativity** program deals primarily with the divergent production operation of the Structure of the Intellect Model. Within this “slab” of the model, eight of the twenty-four factors have not yet been completely identified by Guilford (see Figure 3); thus only a few experimental activities have been developed in these areas. The program does, however, include activities that sample all of the divergent production factors that
involve semantics, as well as some selected activities that use symbolic and figural information. None of the exercises in the program are offered as “pure” exercises in the development of a given factor. For example, Guilford (1967) has stated that “memory storage” underlies all problem solving and creative production, and other researchers (Pollert et al., 1969) have found that memory abilities play an important role in divergent production. Guilford’s factor-analytic data also have shown that certain activities are related in varying degrees to more than one factor. Thus abilities from other areas such as cognition and memory are brought to bear on the operation of divergent production; and within the area of divergent production, certain abilities seem to act as contributory factors to the development of other abilities. For this reason, the classification of activities according to the Guilford structure is intended to point out the major focus of the respective activities in the program, but these classifications should not be interpreted to mean that other abilities are not involved in a given exercise.

The main purpose of this brief overview of Guilford’s Structure of the Intellect Model is to underscore the relationship between the focus on divergent production presented by the New Directions in Creativity program and the overall dimensions of the Guilford model. Teachers who are interested in delving further into the various dimensions of the model should refer to Guilford’s major work in this area, The Nature of Human Intelligence (1967). Another excellent interpretation of the model is presented in Meeker’s book entitled The Structure of Intellect: Its Interpretation and Uses (1969).

Figure 3. Factors in divergent production.
PART IV

No printed word nor spoken plea
Can teach young minds what men should be,
Nor all the books on all the shelves
But what the teachers are themselves.
Anonymous

LESSON GUIDES FOR MARK A

The activities in this book are presented in the order indicated below. As noted earlier, this sequence is offered only as a suggestion, and you should feel free to alter this sequence to serve the interests and preferences of a particular class. The activity number has been printed in the upper left-hand margin of each activity sheet to help you keep the sheets in order after each use.

A schematic overview of these activities, based on Guilford’s classification system, is presented in Figure 4. For a description of this system, see pages 16-19.

As you use these activities in your class, you may find it helpful to keep a record to which you can refer when you use the activities with other classes. For your convenience, a chart for this purpose is provided on the first four duplicating masters at the back of this manual. This chart contains spaces for you to record the date a particular activity sheet was used and to make notes on the class reaction and on how you used the follow-up activities.

Suggested Sequence for Mark A Activities

<table>
<thead>
<tr>
<th>Activity</th>
<th>Type of Activity</th>
<th>Activity</th>
<th>Type of Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Thinking about Things</td>
<td>Semantic and/or Figural Units</td>
<td>12 What Do You Think Of?</td>
<td>Semantic and/or Figural Units</td>
</tr>
<tr>
<td>2 Dot to Dot</td>
<td>Figural Systems</td>
<td>13 Fun with Figures</td>
<td>Figural Elaborations</td>
</tr>
<tr>
<td>3 A Tale Retold</td>
<td>Semantic Transformations</td>
<td>14 If I Wrote the Book</td>
<td>Figural Transformations</td>
</tr>
<tr>
<td>4 Cut and Create</td>
<td>Figural Relations</td>
<td>15 Fun with Letters</td>
<td>Figural Units</td>
</tr>
<tr>
<td>5 Feelings</td>
<td>Symbolic and/or Figural Units</td>
<td>16 Room to Fill</td>
<td>Figural Systems</td>
</tr>
<tr>
<td>6 Let’s Celebrate</td>
<td>Symbolic Implications and Elaborations</td>
<td>17 Recycling</td>
<td>Figural Elaborations</td>
</tr>
<tr>
<td>7 Pictures Tell Stories</td>
<td>Semantic Implications and Elaborations</td>
<td>18 Building Blocks</td>
<td>Figural Systems</td>
</tr>
<tr>
<td>8 What Do You See?</td>
<td>Figural Elaborations</td>
<td>19 Rhyme Time</td>
<td>Semantic Relations</td>
</tr>
<tr>
<td>9 How does Your Garden Grow?</td>
<td>Symbolic Units</td>
<td>20 Far Out Letters</td>
<td>Figural Transformations</td>
</tr>
<tr>
<td>10 Making Faces</td>
<td>Symbolic Elaborations</td>
<td>21 Letter Look-Alikes</td>
<td>Figural Elaborations</td>
</tr>
<tr>
<td>11 Clues from Clothes</td>
<td>Figural Implications and Elaborations</td>
<td>22 For Children Only</td>
<td>Figural and/or Semantic Classes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>23 Make a Creature</td>
<td>Figural Systems</td>
</tr>
<tr>
<td></td>
<td></td>
<td>24 The Magic Door</td>
<td>Semantic and/or Figural Systems</td>
</tr>
<tr>
<td></td>
<td><strong>SEMANTIC</strong></td>
<td><strong>SYMBOLIC</strong></td>
<td><strong>FIGURAL</strong></td>
</tr>
<tr>
<td>------------------</td>
<td>--------------</td>
<td>--------------</td>
<td>-------------</td>
</tr>
<tr>
<td><strong>UNITS</strong></td>
<td>Thinking about Things ¹</td>
<td>How Does Your Garden Grow? Feelings ¹</td>
<td>Thinking about Things</td>
</tr>
<tr>
<td><strong>CLASSES</strong></td>
<td></td>
<td></td>
<td>For Children Only ²</td>
</tr>
<tr>
<td><strong>RELATIONS</strong></td>
<td>Rhyme Time</td>
<td></td>
<td>Cut and Create</td>
</tr>
<tr>
<td><strong>SYSTEMS</strong></td>
<td>The Magic Door ³</td>
<td></td>
<td>Make a Creature</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Dot-to-Dot Building Blocks Room to Fill</td>
</tr>
<tr>
<td><strong>TRANSFORMATIONS</strong></td>
<td>A Tale Retold</td>
<td></td>
<td>If I Wrote the Book Far Out Letters</td>
</tr>
<tr>
<td><strong>IMPLICATIONS AND ELABORATIONS</strong></td>
<td>Pictures Tell Stories</td>
<td>Let's Celebrate Making Faces</td>
<td>Fun with Figures What Do You See? Letter Look-Alikes Clues from Clothes Recycling</td>
</tr>
</tbody>
</table>

¹ May also be Figural Units
² May also be Semantic Classes
³ May also be Figural Systems
1 Thinking about Things

Type of Activity
Semantic and/or Figural Units

Objectives
To develop the ability to respond in various ways.
To develop understanding that different people have different responses to a given situation.

Teaching Suggestions
Explain to students that one word may bring various thoughts to their minds. Say the word noise and ask each child to tell what he or she is thinking when he or she hears the word. List the responses on the board. Do the same for the word quiet. Point out that different people think of different things when they hear the same word.

Distribute the activity sheets, and ask the children to look at activity “a.” Tell them to think about the word cold, and ask them to draw or list all the things that they think of when they hear the word. Suggest that they use the back of the activity sheet if they need more space. Present activity “b” in a similar manner.

After the class has completed the activity sheets, allow them to share their responses. Prepare two bulletin boards—one labeled Hot, the other Cold—and display individual pictures from the activities under these captions.

If there are children in the class from different areas of the country or from different backgrounds, it might be interesting to point out how their responses differ. Also, if appropriate, mention how responses vary according to the season of the year in which this activity is introduced.

Follow-up Activities
- Take one word that a student has suggested (for example, mittens under the topic Cold) and use that as a base word. See how many things the class can think of that are associated with the new word.
- Put a topic such as Hot or Cold on the chalkboard and ask students to search through magazines and cut out as many pictures as they can find that are associated with the topic word. Have the children paste the pictures on individual papers, or on a classroom mural labeled with the topic. You might select topic words from a social studies unit (for example, City, Country, Homes, Factories, Sports) for this activity.

2 Dot to Dot

Type of Activity
Figural Systems

Objectives
To develop the ability to create a meaningful design within given restraints.
To develop flexibility in viewing figural information.

Teaching Suggestions
Primary children often enjoy making dot to dot pictures in which they connect numbered dots to make a picture which they can then color. If there is not an example of this type of activity readily available, place the following example on the chalkboard. Ask a member of the class to connect the dots. Ask the class what they see.

Place four rows of four dots each arranged in a square on the chalkboard. Choose one student to come to the board. Tell him or her to place his or her chalk on the second dot in the top line. Tell the student to make a straight line from one dot to another. Tell him or her to do this ten times without taking the chalk off of the board so that the dots will be connected. When the student has finished, shade in a portion of the picture. Ask the class what they see. Label the picture.

Repeat this activity using another dot pattern (below is an example) and choose another student to connect the dots.

Allow the child to choose any starting point, and do not limit the number of lines. Emphasize that the student should not have a picture in mind at the beginning. State that no two pictures will be alike.

Have the students turn to the activity sheets. Tell them to place their pencils on the dot numbered “1” in...
activity “a.” Tell them to draw a line from “1” to another dot and to draw a line from that dot to another one, connecting dots until a pattern emerges. They should stop when they see a pattern. They need not draw a specified number of lines. Tell them to label the picture and then color it.

Present activity “b” in a similar manner, but point out that the students do not have a special starting point in this activity. State that they should not make the same pattern twice. Have the class compare their results.

**Follow-up Activity**

- On a 9” x 12” piece of wall board or plywood, place four rows of four 1.5” nails to form a square, with the nails spaced about one inch apart. The square should look like the ones in activity “a.” Have students make designs by connecting the nails with colored yarns or elastic bands.

3 A Tale Retold

**Type of Activity**

Semantic Transformations

**Objectives**

To develop verbal fluency.
To develop the ability to create alternative endings to stories.

**Teaching Suggestions**

Introduce activity “a” by reading or telling the story “The Three Little Pigs” to the class. Ask the children if they liked the ending to the story or if they would have preferred a different one. Discuss other possible endings. Ask, for example, what might have happened if the wolf had blown down the house of bricks or if the boiling water had been a magical potion. Ask what such a magical potion might be and what it might be able to do. Suggest some other “what if” situations. To stimulate fanciful thinking, ask children to create an ending that is funny or one that is sad. Encourage them to add to or modify some of the more imaginative ideas of their classmates.

Provide scissors, crayons, and paste (or glue) as you hand out the activity sheets. Give the children time to color their puppets and then demonstrate how to cut them out. Be sure they understand how to cut. Younger children may have trouble cutting around the tabs. (If this is the case, dispense with the tabs and staple either a Popsicle stick or a tongue depressor to the back of each figure as an alternate way of making the puppets.) Show the children how to form the tabs into a circle behind the figure and how to glue the two edges together. After the glue dries, the puppets will be ready to be slipped over their fingers.

Encourage the children to change puppets when it is appropriate to their story. Tell them to change voice for the different characters and to move the puppets as they talk. Remind them that the idea is to have a new and different ending for their tale. Students could work in pairs to present their stories to the class. You might encourage older students to write a script and to use music to accompany their presentations. Follow a similar procedure for activity “b” after reading or telling the story of “Little Red Riding Hood.”

**Follow-up Activities**

- If the children are enthusiastic about puppetry, consider making a puppet theater as a class project. You could call a local appliance dealer and request that he or she set aside a large cardboard box in which a major appliance had been packaged. Bring this carton to class and discuss with the class some ways of converting it into a puppet theater. Agree on the best approach and list on the board the steps involved. Select a few children to work together on each of the various steps and plan times during the week when the groups can work on the project. A diagram of one possible theater design is offered below.

- Bring to class books about puppets and puppet making and encourage students to create their own characters. Provide paper, crayons, pieces of material, yarn, buttons, and any other odds and ends you can collect. Paper-bag and sock puppets are old favorites that are simple to make, requiring only a minimum of instruction. Show the class how the puppet “comes alive” by slipping the sock or paper
bag over your hand and moving your fingers how the puppet “comes alive.” Ask the children for their ideas about puppet design and construction. Make a collection of these puppets which the children can share in their free time.

**Resources**

*Most Excellent Book of How to Be a Puppeteer* by Roger Lude. 1996. Published by Copper Beech Books: Brookfield, CT.

*Puppets and Masks: Stagecraft and Storytelling* by Nan Rump. 1996. Published by Davis Publications, Inc.: Worcester, MA.

**4 Cut and Create**

**Type of Activity**

*Figural Relations*

**Objectives**

To develop the ability to construct new images from given elements.
To develop figural flexibility.

**Teaching Suggestions**

Preface this activity with an introduction to some of the basic shapes. The students probably already have developed conceptions of *circle, square, oblong*, and *triangle*. Show them some three-dimensional objects, such as blocks and balls, that include these shapes. Have the children find things in the classroom that have the same shapes as the blocks and balls. Encourage them to discover various things in the room that are made of combinations of shapes. (For example, a chair might consist of a square and several oblongs.)

The children can make shapes like those in the activity sheets from felt and combine them on the feltboard in a variety of ways. They might cut the basic felt shapes into two or three pieces. Point out that the square could make two triangles and that the circle could take a variety of shapes ranging from two half-circles to three pie-shaped pieces. Suggest that the youngsters arrange and rearrange these parts in many ways.

After distributing the activity sheets, ask the children to cut out the shapes and place them on another piece of paper in a variety of combinations. Some students might wish to work with the basic shapes provided. Other students might like to cut the shapes into several parts prior to arranging them. Tell the students that each person should find a grouping that he or she likes and then paste it and color it. Suggest that they label their pictures.

**Follow-up Activities**

- Have the children draw on colored paper all four of the shapes included in this lesson. You could provide a pattern, have the students find and trace three-dimensional objects of these shapes, or ask them to draw something freehand. Spools, jar lids, and small box-tops are excellent objects for tracing and will show a relationship to concrete objects. Tell the children to combine their four shapes in various ways on a large piece of colored paper. Have them paste and title each combination.

- Show the children how to combine Styrofoam or wooden three-dimensional objects to make sculptures. Have them paint their creations and display them. Suggest that they title their work. *Note: In working with three-dimensional figures, you may wish to substitute a cone for the triangle.*

**5 Feelings**

**Type of Activity:**

*Symbolic and/or Figural Units*

**Objectives**

To develop the ability to respond in various ways.
To develop the ability to see that a variety of situations can produce a given mood.

**Teaching Suggestions**

To introduce this activity, select short paragraphs or stories that create the mood under consideration. Explain that people feel differently about different things and ask the students to listen carefully to see if the story is happy or sad. It is conceivable that a story which seems sad or happy to the teacher may not seem so to every child. Discuss each story, but let the students decide individually whether it is happy or sad. List some of the events from the story which make it either happy or sad.

You might contrast nursery rhymes such as “Humpty Dumpty” and “Old Mother Hubbard,” which promote a sad theme, with “Mary, Mary Quite Contrary” and “Little Jack Horner,” which are happy rhymes.

Tell the children to draw or list on the activity sheet all the things that make them either happy or sad. Suggest that they use the back of the sheet if they need more space.
Follow-up Activities

• If a tape recorder or a teacher’s aid is available for taking dictation, allow students to expand upon some of the things which make them happy or sad by composing a story.

• Have students mime some of the things that make them happy or sad while class members try to guess what they are doing.

• If the class is mature enough to work with papier-mâché, have each student choose an emotion and make a puppet or mask that displays that mood.

• Ask students to see how many synonyms they can list for happy—sad, angry—calm, or serious—silly moods.

6 Let’s Celebrate

Type of Activity
Symbolic Implications and Elaborations

Objectives
To develop the ability to elaborate on given objects to ascribe additional meaning.
To develop symbolic fluency and flexibility.

Teaching Suggestions
You could introduce this activity after a class celebration of a holiday or birthday. On such occasions, many classes share decorated cakes or cupcakes. Discuss the decorations that the children have seen on birthday cakes. List other occasions on the board for which one might make a cake and other refreshments. Ask “How might the cake be decorated?” and “Are there other special days we might celebrate with a cake?” List them on the chalkboard.

To get original responses, suggest that the children might celebrate the purchase of a puppy with a cake decorated with dog bones made of candy. Or, they might celebrate the first day of spring with a cake decorated with flowers. Ask students to think of ways they could wrap gifts for these occasions. You could suggest that they might wrap a gift for a new puppy with a leash and a bow made of dog biscuits. The class might look at examples of wrapping paper and discuss how the designs make it appropriate for a particular occasion.

Distribute the activity sheets. Tell students to decorate the cakes or boxes for the special days shown under the pictures. Tell them to pick out some special days of their own and decorate cakes or boxes for those days. Ask them to label these cakes or boxes.

When doing the activity sheets, the children need not include in activity “b” the same occasions represented in activity “a.” Encourage variation. You might suggest that they celebrate the first day of spring with a cake, but not exchange gifts. Encourage the children to think of original reasons for celebrations and have them share their responses.

Follow-up Activities

• Choose a day that is special for your class. Provide undecorated sugar cookies for each child. If a kitchen is available, have the class make the cookies early in the day. (Making cookies affords an opportunity for measuring and sharing.) To make decorating easier, the cookies should be larger than three inches in diameter. Seat the children in small groups. For each group, provide a bowl of icing (or peanut butter), raisins, nuts, chocolate chips, licorice strips, and cake decorator items. Distribute tongue depressors or plastic knives for spreading the icing.

• Students could decorate gifts that they have made for Mother's Day or Father's Day, Christmas, Hannukah, or Kwanzaa, create their own wrapping paper, and/or make cards with original poetry for some of the special occasions given in activity “b.”

7 Pictures Tell Stories

Type of Activity:
Semantic Implications and Elaborations

Objectives
To develop imagination and verbal originality.
To develop the ability to give antecedents and to predict consequences to a given situation.
To develop the ability to use sequence in story writing.

Teaching Suggestions
Before introducing this activity, cut out short cartoons and comic strips. Use an overhead projector to enlarge them. Cut out or black out the words or captions so that the pictures alone tell the story. Ask the class to dictate an original class story about one of the cartoons and write it on chart paper. In classes that are slower in grasping this activity, you may wish to have the class write several stories based on different cartoons.
After distributing the activity sheets, ask the children to look at the cartoons on the sheets. Suggest that they tell the stories of the cartoons either by dictating to you (or an aid) or by writing on the back of the sheet. Ask the students to present their original stories to the class and encourage them to notice how many different kinds of stories will result from the same pictures. Encourage students who can write to fill in captions for the cartoons or to place words on the cartoons to make the characters talk.

Follow-up Activities

- A classroom scrapbook of cartoons and comics with words blacked out will serve as an excellent resource for students who want to write additional original stories. This scrapbook might consist of ten or twelve 8" x 10" envelopes stapled together (to form the backbone of the book) so that each one will be a page of the book. To make this scrapbook, pile the envelopes on top of one another with the sealed ends together. Fasten the staples through the sealed ends. The open ends should be on the right hand side so that each envelope forms a “page” that opens. Place a cartoon on the front of each envelope.

  When a student wishes to write a story, he or she should look through the scrapbook and select a cartoon as subject matter for a story. Permit the student to take the scrapbook to his or her desk to write the story. Upon completion of the story, have the student file it in the envelope to which that particular cartoon is attached. As the story collection begins to build, choose one cartoon from the scrapbook, display it, and read all the stories that are in its envelope. Help students perceive and compare the variety in story line.

- For a lesson in sequence, cut the cartoon strips on the activity sheets into three separate pictures and change their order so that they will tell different stories.

8 What Do You See?

Type of Activity
Figural Elaborations

Objectives
To develop nonverbal elaboration and originality.
To develop the ability to construct a meaningful picture by elaborating on given objects.

Teaching Suggestions

To introduce this lesson, place a small square with a large circle below it on a felt board. Have a variety of shapes made of felt lying on a table in front of the felt board. The shapes should range from large round, square, and triangular pieces to very thin strips of various lengths. (You might also use pieces of yarn.) Ask a student to add some pieces of felt or yarn to make the circle and square form a picture. Have the student place his or her additions on or around the figures. Ask him or her to tell about the picture. Clear the board. Using the same circle and square in the same arrangement, ask another student to create a new picture with additional pieces of felt or yarn and then explain the creation.

Distribute the activity sheets and tell the children to look at the figures carefully. Suggest that these figures could be part of a picture. Instruct the children to add some lines of their own to make a picture. Ask them to color the picture and then tell about it. Suggest that some of them might like to write about the pictures on the activity sheets.

Display the children's work with the figures in activity “b” on a bulletin board. Have students duplicate these creations with pieces of felt arranged on a felt board.

Follow-up Activities

- Make a collection of scraps of fabric. Have the class make collages with these scraps on pieces of heavy paper or tag board. Begin this collage activity by cutting several basic shapes for the students. Then ask them to add their own cut-out shapes. Tell them that yarn, buttons, and other sewing notions are useful in making collages. Ask children who can write to give their work a title.

- If a large classroom collage is feasible, have each student contribute one shape to a series of shapes that you have already pasted on a piece of mural paper or heavy cardboard. You could even pin pieces to a bulletin board backed with colorful cloth or wallpaper.

9 How Does Your Garden Grow?

Type of Activity
Symbolic Units

Objective
To develop verbal fluency by producing words that conform to simple specifications.
Teaching Suggestions

These activities should follow lessons on the consonant sounds. Have students play a game such as “My father owns a grocery store.” Say to the children, “My father owns a grocery store, and in it he sells . . .” Make a beginning sound such as hard c. Think of the word cake, and ask the children to guess what you are thinking. They will call out many hard c words. When someone correctly calls out “cake,” he or she will become the next leader. The new leader must think of a new grocery store item beginning with a different consonant, and the class must guess what it is.

Distribute the activity sheets and invite students to look at the gardens on them. Point out that the flowers are make-believe flowers. Ask the children how all the flowers in activity “a” are alike. When they become aware that the names all begin with the same sound, ask them to think of other items that have names beginning with that sound. Draw several of the suggestions on the board as pictures with stems. Then have the children complete the flowers in activity “a.” Tell them that they may use the backs of their papers if they need more space. Have the children who can write label each picture. Suggest that the others might like to write just the beginning sound. You might ask certain students to look for words in the dictionary.

Follow the same procedure for activity “b.” You could suggest that the children first think of all the three-letter words that rhyme with bat and cat. Then have them try adding one or two letters to the -at ending (brat, beat, heat, cheat, meat, seat). Use the most original words for a bulletin board display.

Follow-up Activities

• You could use the make-believe garden in various ways for any beginning or ending consonant or vowel sound. You might, for example, make a large tree with many branches for the bulletin board. Label it a c tree, a d tree, or with any other beginning sound that the class may be working on. Have the children cut out pictures of objects with names that begin with that sound and place them on the branches of the tree.

10 Making Faces

Type of Activity
Symbolic Elaborations

Objectives
To develop the ability to construct significant objects by elaborating on given structures.
To develop symbolic fluency and flexibility.

Teaching Suggestions

Cut out and mount pictures of faces that portray various moods. Display these pictures in front of the class. Ask the class to describe the faces in the pictures. Ask if the faces are pretty or homely, happy or sad, old or young. Display a face with a happy expression. Ask the class how they would change it to make it sad. Point out that the eyes and eyebrows as well as the contours of the mouth can change a facial expression. On pieces of 9" x 12" paper, print the words happy, sad, and mad in large letters. Give one student the happy label. Ask him or her to stand in front of the class and dramatize this mood. Repeat this process with the other words. If a mirror is available, have students observe their own facial expressions as they depict different moods. Point out that different students have different ways of expressing the various moods.

Distribute the activity sheets. In Activity A, tell the students to make a face that looks like the word under the blank circle. Tell them to add a new label under each of the other blank circles and then make a face to go with the label. Suggest that they use the back of the sheet if they need more space.

For activity “b,” ask the students to write or tell what the person in each picture is feeling. Ask them to add eyebrows, eyes, or mouth in any way they want to complete the faces. If they need further motivation for this activity, hide part of your face with a scarf and ask the children to guess your mood from the part left showing. (For example, hide your mouth and display a happy face with your eyes.) After the children have expressed their guesses, remove the scarf so they can see if they have guessed correctly. Point out that the angles of your eyebrows, eyes, and mouth all help to create an expression. Display some of the more original drawings on the bulletin board.

Follow-up Activities

• The students might dramatize some of the original expressions which they created on the activity sheets. They could also play a guessing game in
which one student portrays a mood and the others guess what it is.

- After completing the activity sheets, some students might wish to draw cartoon bubbles to make each of their characters say something appropriate to the expression. Students might also label the pictures with an appropriate caption.

11 Clues from Clothes

Type of Activity
Figural Implications and Elaborations

Objectives
To develop the ability to elaborate on a given form.
To increase observational skills and the ability to draw conclusions from given information.

Teaching Suggestions
Besides being a good stimulus for the imagination, this activity helps children see the great variety and flexibility of human physical characteristics and clothing combinations. Introduce the activity by talking about Halloween and the practice of wearing costumes or disguises on that holiday. Explain that a disguise, like a costume, is used to make a person look different from his or her normal self. Have students give examples of their costumes and disguises. Discuss the use of costumes and disguises by clowns in the circus or by actors in television programs and in movies. You might tell the story of Snow White, in which the wicked queen takes on the disguise of a sweet old lady to fool Snow White. In addition, talk about how many different occupations require special costumes or working clothes and equipment.

Distribute the activity sheets and ask students to look at activity “a.” Tell them that the person on the activity sheet has a special job. Tell them that he or she must wear special clothes for that job. Ask them to think of a job for this person and then draw the clothes that he or she will need for that job.

For activity “b,” ask the students to pretend that they are famous detectives who must follow a suspicious looking person. Tell them that to keep that person from suspecting he or she is being followed, the detective must wear a disguise. Ask them to draw that disguise on the figure. Suggest that, before drawing the disguise, students first think of a reason for wearing that particular item (false beard or eyebrows, dark glasses, long coat, and so on).

Pairs of students could work together on the two activity sheets. In activity “a” the first person could suggest a job for the figure on the activity sheet, after which his or her partner creates the appropriate costume. In activity “b,” the first person could create a fanciful reason for a disguise, after which the partner dresses the figure on the sheet. The partners should then reverse roles so that each person has a chance to make up a situation and also a disguise.

After students have completed the activity sheets, have them show their work and discuss the occupational clothes and disguises they drew.

Follow-up Activities
- Let students attempt to make disguises for themselves from paper and old scraps of felt, yarn, or other materials you have collected. Suggest that they might make masks from paper bags, or papier-mâché. Since young children like to play “dress-up,” provide them with materials for this game and set aside a corner of the room for it. Collect old clothes, hats, shoes, and jewelry, and if possible, provide a full-length mirror to encourage the children to make the most of the clothing at their disposal. Have the children use their costumes in role playing or charade activities.

- The class could also make a large dummy out of old material (a sheet or pillow case, perhaps), stuff it with rags or newspapers, and use it as a dress-up dummy. The children could change its costume whenever they wished. They might use puppets in a similar manner and, with a change of clothes, have these puppets play new characters.
12 What Do You Think Of?

Type of Activity
Semantic and/or Figural Units

Objectives
To develop verbal fluency and flexibility.
To develop understanding that given information may have different meanings to different individuals.

Teaching Suggestions
Several days before taking up this activity, begin keeping a weather chart in the classroom. On a piece of chart paper, record the temperature and note if it is sunny or rainy. On the same paper, list the things that the class might do each day. Before beginning the activities, look back at the weather chart and point out the various things that the class did on sunny days and those they did on rainy days. Compare and contrast sunny-day and rainy-day activities.

Distribute the activity sheets and tell the class to turn to activity “a.” If necessary, ask the students to pretend that it is a sunny day. Ask them what things they might do on a sunny day. Ask them to imagine that it is any season they prefer and any hour of the day. Have them to list or draw the things that they might do at that imagined time. Present activity “b” in a similar manner.

Follow-up Activities
• Continue keeping a classroom record of the weather. Carry out some of the sunny- or rainy-day activities suggested by the children in activities “a” and “b” that the class as a whole can do. (For example, if a boy suggests that on a sunny day he can play kickball, point this out to the class and include it in a sunny-day’s plan.)

• Have students discuss how they feel on a sunny day as compared to how they feel on a rainy day. Do not assume that all children feel happy in sunshine or sad in rain.

13 Fun with Figures

Type of Activity
Figural Elaborations

Objectives
To develop the ability to manipulate given objects in a variety of ways.

To develop the ability to construct a distinct unit from several elements that have no independent significance.

Teaching Suggestions
To introduce this activity, place a round piece of felt and three or four long, thin, straight pieces of felt on a felt board. Arrange the straight pieces in several patterns close to the circular piece. Below are two examples:

After presenting each example, ask students what they see. Accept any answer, and encourage a variety of responses. Repeat this procedure using the chalkboard. Draw a circle and add four straight lines. Ask the children what they see. After doing this several times, draw a circle and allow several children to take turns adding four lines at the board. The lines may be of any length. After each child has added his or her lines, ask the class to describe what they see.

Distribute the activity sheets and then ask the children to add four straight lines to each circle in activity “a” so that each example forms a different picture. Encourage the children to make pictures other than the ones you have used as examples. Have those children who can write add titles to their own pictures. Allow some of the children to duplicate their pictures on a felt board or chalkboard. If they need more space, have them use the backs of the activity sheets.

Follow-up Activities
• Have the class play a guessing game in which one person creates a figure on the felt board and the other class members guess what it is. They could also play this game at the chalkboard. You could turn this activity into a team game by dividing the class into five teams. Mark off five sections of the chalkboard and give each team a section. Have the first member of the team make a figure, such as a circle or a square. Then ask each succeeding member to add a line. Finally, have the first member title the picture. Then rotate the teams so that each person has a chance to begin the activity and to title the picture.
14 If I Wrote the Book

*Type of Activity*
Figural Transformations

*Objectives*
To develop the ability to alter characteristics of known objects.
To increase nonverbal originality and flexibility.

*Teaching Suggestions*
Introduce this activity by reading the poem “The Purple Cow” by Gelett Burgess aloud.

“I never saw a purple cow,
I never hope to see one;
But I can tell you anyhow,
I’d rather see than be one!”

The poem will probably provoke giggles from the students; ham it up if you wish. The children will be more likely to be creative on this exercise if they are feeling a bit silly. Explain how the authors of children’s books often take ordinary animals and make them unusual and/or funny in some way to make the animal character more outstanding and memorable. Good examples of such characters that children may be familiar with include Walt Disney’s Dumbo (an elephant that can fly) and any of Dr. Seuss’ strange animals.

Draw a very simple dog on the chalkboard and have the class suggest alterations that would make it funny, different looking, or able to do a special thing. Give it strange colors or patterns, funny features, or strange clothes.

Distribute the activity sheets. Tell the students to imagine that they are writers of stories about animals that are very different. Tell them to change the animals on the sheets to make them unusual. Point out that their animals should be able to do different things and ask them to label the animals and then talk about them. Suggest that they may wish to give their animals names relevant to their special characteristics.

Allow students to show their work to the class and encourage them to talk about their ideas for funny animals. Be sure to praise their drawings, pointing out particularly unusual or clever ideas. Exposure to the ideas of others may provoke additional responses. It is important, therefore, to give students an opportunity to add new responses after discussing the pictures. Display the activity sheets on the bulletin board—or out in the hallways—if your students do not object. This type of exercise is one that other students in the school will enjoy sharing.

*Follow-up Activities*
- Encourage your students to think up their own animals to alter in an original way. Or have them play a musical art game in which each student draws an animal while music plays. Stop the music at intervals and ask them to pass their papers to the person behind or beside them. That person then adds on to his or her neighbor’s drawing as the music plays once again. When the music stops, the students pass their papers on as before. The animals resulting from this joint effort are sure to be unusual.

- The class might also enjoy working on one large, mural-sized picture of an animal. Or two teams might compete in drawing two huge animals. Students could also construct three-dimensional animals out of found materials, fabric scraps, or papier-mâché.

- Have the class discuss the problems such an animal might experience (such as the social ostracism Dumbo encountered because of his ability to fly). Considering the special abilities of such animals will lead students to a better understanding of their attitudes toward others who are different.

15 Fun with Letters

*Type of Activity*
Figural Units

*Objectives*
To develop nonverbal flexibility and originality.
To develop skill in constructing a variety of meaningful figures based on the manipulation of given elements.
To demonstrate nonverbal application of creativity skills.

*Teaching Suggestions*
This activity will help students understand that they can apply the skills of creative thinking to nonverbal as well as verbal information. Hand out the first activity sheet and point out the way that the “C” has been rotated in the example. Suggest that they can also turn the “H” in any direction they wish. Provide crayons, scissors, and paste (or glue) and ask the students to
color the letters at the bottom of the paper. Remind them not to color so heavily that they will be unable to see the outlines. Have them cut out the letters, and invite them to take one “C” and one “H” and experiment with combining these letters in different ways.

When the students have arrangements they are pleased with, suggest that they glue them into one of the boxes provided on the activity sheet. Then have them select a second pair of letters and repeat the process of experimentation and gluing. If students have more ideas, but have used up all of the letters they have cut out, show them how to make additional designs by printing the letters in the arrangements they have in mind (for example \( \text{C H} \) or \( \text{H C} \)). They should do this activity on the back of the paper. Proceed in the same way with activity “b.”

After the students have completed as many designs as possible, ask some of them to put their most original figure on the chalkboard. Ask the class, “How many had that one?” It will be interesting to see which arrangements are unique. Suggest that students rotate their papers in different directions to see if they can come up with any more ideas for combining the two letters.

**Follow-up Activities**
- Ask students to cut geometric figures out of paper and combine them in various ways. Students could make attractive bulletin board displays by cutting out large numbers of given shapes in various colors and pasting them on sheets of paper to form geometric collages. They could make other interesting collages by cutting out objects in a given category from magazines (faces, automobiles, and so on) and combining them in interesting ways.

16 Room to Fill

**Type of Activity**
Figural Systems

**Objectives**
To increase figural fluency.
To develop the ability to group items into categories.
To encourage planning and organization when approaching tasks.

**Teaching Suggestions**
Introduce activity “a” by asking students to imagine themselves at home in their kitchens. Explain that you want them to use different senses to learn what is in this room. Begin with the sense of smell. List on the board all the things the children say they can identify by the sense of smell. Certain foods, such as vinegar, have a very distinctive odor. Compare these foods to items such as water or corn starch that are very bland. Next, ask what sorts of sounds might be heard in the kitchen. Oven doors closing, beaters whirring, water bubbling, and dishes rattling are but a few examples of the variety of responses that are possible. Continue this questioning, asking for things that they can touch and things that they can taste in the kitchen. Leave consideration of the fifth sense (sight) to the students to think about on their own. Hand out the activity sheet and tell students to draw the things they might see in a kitchen. Stress the importance of planning the placement and the size of the items they want to include. Point out that drawing an oven or a cabinet too large will limit the total number of items that can fit into the room.

For activity “b,” discuss how different occupations require different kinds of tools. A landscape gardener, for example, would use a hoe, rake, and shovel. A carpenter would need a hammer, drill, saw, level, and sander. A plumber might use a wrench, screwdriver, and wire snake. Have students draw as many tools as they can fit into the space provided on the activity sheet. Once again, stress the importance of planning the placement and size of items.

Allow ample time for the work. Then ask some of the children to show the class their drawings. Keep count of the number of ideas they come up with and ask the remaining students to share any ideas they may have thought of that no one else mentioned. If someone includes an unusual tool, have her or him describe its function and tell who would use it.

**Follow-up Activities**
- Ask students to describe a variety of environments in terms of what each of their senses can tell them. Students could generate lists of things that they might smell, hear, taste, touch, and see in the park, at the zoo, or on a picnic.

- Invite students to bring to school a variety of foods and other objects for a game of identification. Put all of the items in a “mystery box.” Then select a child to be blindfolded and seat him or her up front facing the class. A great deal of excitement will evolve as you have the blindfolded child pull an item from the mystery box. Ask the child to try to identify the object by using any of the senses except sight. If this person is successful, select a new contestant to be blindfolded and seated up front. If
the contestant is unable to guess what the object is within an appropriate amount of time, allow him or her to take off the blindfold and see the item. Allow this contestant one more attempt to identify an object from the mystery box.

- Still another game of the senses might involve riddling. The class could make up riddles with clues based on the five senses. For example:

  - It’s red and round (sight)
  - Juicy (taste) but makes no sound (hearing)
  - What is it? (APPLE)

Encourage students to use as many senses as possible in describing objects.

- A mathematics activity that would coordinate with activity “a” might be to have students make scale models of kitchens or other rooms in the house. They could construct these models from boxes and make items used in these rooms from heavy paper, pipe cleaners, and scrap materials.

- If students seemed to enjoy the discussion on occupations, try some pantomime with them. Call on one student at a time to pantomime the actions of an individual in a particular occupation. Ask the rest of the class to guess what the occupation is.

- Another approach to studying occupations is to look at the differences in dress. The class could discuss the purposes and characteristics of different uniforms. They might note that some are very useful, providing pockets for tools, while others are more decorative than anything else. Have students keep a folder of pictures of special or unique uniforms or ask them to decorate a bulletin board with photographs cut out from magazines and newspapers and/or drawings of occupational dress.

**17 Recycling**

Type of Activity
Figural Elaborations

Objectives
To develop the ability to think of alternate uses for common objects.
To develop the ability to combine given elements into a new whole.

**Teaching Suggestions**

To introduce this activity, have the class brainstorm a list of things that might be used for something practical or fanciful instead of being thrown away. Items such as paper towel tubes, plastic bread bags, bottle caps, or jar lids might be a part of such a list. Talk about ecology and how we often waste things. Mention how our society has begun to place an emphasis on recycling glass, paper, cardboard, plastic and cans, introducing the term recycling to the class. Show the students some recycled paper or artwork made from throwaway objects. Emphasize the possibilities of altering the shape of something or combining it with other things to create a useful or decorative object. When students have grasped the concept and can think of alternate uses for things fairly easily, introduce the activity sheets.

Tell the children to look at the pictures on the activity sheets. (The pictures are of things that the children might recycle.) Tell them either to write or to draw ways in which they could change these objects by putting them together or by changing their shapes. Suggest that they add things of their own. If they need more space, tell them to use the backs of their papers.

When you see that students have completed the activity sheets, encourage them to share their ideas with the class. Suggest that by discussing their ideas they will probably think of more uses for the objects they have been considering.

**Follow-up Activities**

- Keep a large box in the room as a receptacle for old used objects and for scraps (such as paper and string), boxes, cans, and bottle caps. Students could use the materials for construction, collage, or other arts and crafts activities.

- Find out how to make new paper from used paper. You might be able to make a crude example of recycled paper in your classroom by soaking, bleaching, and mashing up old used paper and then pressing it into a “sheet” on a cookie sheet or on a large, flat pan. The pressed, dried paper will probably resemble crude cardboard. If the students are interested, you might have them start a recycling project at your school to reclaim glass containers, cans, and/or paper.

- Have students build a tin-can castle out of recycled materials. Bring a glass cutter and (with you doing the cutting and fire polishing) help students make vases, pencil holders, cups, and similar objects out
of old bottles and jars. (It is necessary to fire-polish the sharp edges of newly cut glass to protect against cuts. To do this, hold the newly-cut edge briefly in the flame of a Bunsen burner or gas stove. The sharp edge will become smooth.)

- The class can discuss the types of materials rust or break down and those that do not. You could keep a list of both categories on the bulletin board.

- The class might enjoy a game about recycling. To initiate play, choose two teams and have each group think of five things that would ordinarily be thrown away. Ask them to write the names of these things on strips of paper. Team A gives a strip to Team B, and if Team B can think of something to do with an item on the strip rather than throw it away, the team gets one point. Team B then gives a strip to Team A, and so on alternately until all strips are used up. The team with the most points at the end of the game wins.

18 Building Blocks

**Type of Activity**

Figural Systems

**Objectives**

To develop the ability to combine given units into a functional object.
To develop flexibility in creating new objects from given units.

**Teaching Suggestions**

You could introduce this activity in several ways. If some class members have collected matchbox cars and trucks, invite them to bring them so the class can see them. Discuss the size, shape, and function of the vehicles. Have the class listen to stories about machinery and then discuss the shapes, sizes, and functions of the vehicles in the stories. If there is a construction site near the school, visit it with the class and observe the machinery. Conduct a discussion of machines and how they work.

Have building blocks and/or Lego® blocks available in the classroom. Ask students to make machines from the blocks. The machines may be like those that they observed, or they may be totally original. When you first present the activity, provide a purpose for which the machines should be made—for example, “Let’s make a machine to dig a big hole.” You may wish to present this activity several days before you present the activity sheets so that students can create machines in their free time.

If no classroom blocks or Lego® blocks are available, the class could devise a simple set of building materials consisting of shoe boxes, cans (without sharp edges), pie plates, and wood scraps.

When you distribute the activity sheets, provide scissors and paste (or glue) as well as colored paper on which to place the students’ creations. Tell them that the figures on the activity sheets are building blocks. Tell them to cut out the figures and arrange them and rearrange them until they make a machine. Tell them that the machine may be like a real machine or it may be an original one. You might also show the children how to make movable parts for their machines by using page fasteners to hold parts together. If they use this approach, the students may wish to transfer the shapes to heavier material, such as tag board or colored construction paper.

Have youngsters describe their machines orally, write about them, or dictate stories about them. Display the finished pictures, objects, and stories.

**Follow-up Activities**

- After completing the activity sheets, use any of the activities listed under “Teaching Suggestions” that were not used as an introduction.

- Have the class create a mural centered around a building theme. Ask each member contribute one original machine made out of colored paper. Then write a class story on chart paper about the mural. Display original machines made from blocks in an area set aside for that purpose.

19 Rhyme Time

**Type of Activity**

Semantic Relations

**Objectives**

To develop the ability to create simple rhymes.
To develop verbal flexibility.

**Teaching Suggestions**

Introduce this lesson after exposing the class to poetry. Read selections that you feel are appropriate to the age group. If the poems relate to units of work that you are doing in the classroom, so much the better. Poetry that deals with the season at hand, special events
that the children have celebrated, or that is just for fun would be especially suitable. Common nursery rhymes work well. Because of the nature of the activity sheets, choose only rhyming poetry. Point out the words that rhyme in each poem and list them on the chalkboard. Emphasize that rhyming words have the same ending sounds.

Distribute the activity sheets. In activity “a,” ask students to think of all the words they know that rhyme with the last word in the first line. They should write the words or draw pictures of them in the blank spaces. On the second activity sheet, have the class finish the first and second lines using words that rhyme. Point out that the poems will change meaning if the children change the rhyming words. It may be necessary to read the couplets to the class as they work. After they have finished the work, have them share some of their responses and display the activity sheets.

If individual students have difficulty thinking of rhyming words, have the class as a whole work together on the activities. List on the board (with students’ help) all the words that rhyme in each couplet. Then have students choose words from this list to complete their couplets. If this procedure is followed, be sure to emphasize that there is no correct answer and that you will accept any new word that rhymes with the last word in the first line.

Some students may want to create new, original rhyming words. If so, read some Dr. Seuss poems in which he makes up his own words, or read the following poem, “Eletelephony,” by Laura E. Richards.

ELETELEPHONY
Once there was an elephant,
Who tried to use the telephant—
No! no! I mean an elephone
Who tried to use the telephone—
(DEAR ME! I am not certain quite
That even now I’ve got it right.)

Howe’er it was, he got his trunk
Entangled in the telephunk;
The more he tried to get it free,
The louder buzzed the telephee—
I fear I’d better drop the song
Of elephop and telephong!^2

Follow-up Activities
- You might follow work on these activity sheets with a unit on poetry writing. If you feel that the class is ready, introduce other forms of poetry. Read a short story to the class, and ask students to summarize it in simple poetic form. In some classes, this activity works best when the entire class participates (with the teacher writing suggestions on the chalkboard) to produce a final poem on a large piece of chart paper.
- Invite students, individual or as a class, to add verses to poems you read by the teacher.

Resources
Word Weavings by Shelley Tucker. 1997. Published by Good Year Books, Glenview, IL.

20 Far Out Letters

Type of Activity
Figural Transformations

Objectives
To develop figural fluency.
To develop the ability to generate action words beginning with a given letter.
To develop figural skills by representing action words with characters.

Teaching Suggestions
This activity should follow lessons on consonant sounds, and it works well after a lesson on action words. Introduce it by organizing a pantomime game. Place the letter s on the chalkboard. Pretend that you are sewing and ask the class, “What am I doing?” When a student guesses that you are sewing, say “Now I will do something else that begins with s.” (If no one guesses that you are sewing, tell the class that you are sewing.) Pretend that you are sawing a log. Ask students what you are doing. When a student guesses that you are sawing, ask that student to come to the front of the class and do something that begins with s. Continue this activity with the letters t and w.

Distribute the activity sheets. Then ask students to think of action words that begin with l. Point out the examples (lean and leap) on the first sheet. Pointing out the artistic variations used in the examples, ask the students to add similar details to the letters on this page to make them look as if they are performing actions.

Pointing to the list on the board, ask for volunteers to come to the board and make a picture of one of the objects listed using the letter d. Have the children name their pictures. If someone draws a figure that is not on the list, have the class guess what it is.

Distribute the activity sheets and ask the class to look at activity “b.” Point out that there are many P’s in many positions on this sheet. Ask them to add some lines to make pictures of objects that begin with a p sound. Suggest that they write names under the pictures. Have the children use the backs of the activity sheets for additional drawings. Present activity “b” in a similar manner.

Follow-up Activities
• Place the entire list of consonants on the board. Have the class draw a picture of an original object for each consonant.
• After you have introduced the vowel sounds, have the children draw pictures of objects whose names begin with the vowel sounds.
• Some students may wish to create pictures of objects from the entire group of letters that spell an object’s name.

21 Letter Look-Alikes

Type of Activity
Figural Elaborations

Objectives
To develop the ability to generate a list of words beginning with a given consonant.
To develop the ability to elaborate on a given consonant to make it represent a meaningful object.

Teaching Suggestions
You could present this lesson during or after teaching consonant sounds. Present the consonant d. Ask the class how many objects they can think of that begin with the d sound. List them on the board. Place a capital D with curved side down on the board. Add eyes, nose, ears, and whiskers. Say that you have made a dog and that its name begins with a D. Label it Dog. Place another D on the board. Ask if anyone can make a duck. Label it Duck.

22 For Children Only

Type of Activity
Figural and/or Semantic Classes

Objectives
To develop the ability to classify activities and objects according to given specifications.
To develop the ability to represent thoughts in structured form.
To develop verbal fluency and flexibility.
**Teaching Suggestions**

To introduce this activity, ask students to close their eyes and imagine a faraway planet on which only children live. On this world, all activities, objects, and games are made just for children. Ask students to describe some things they might find on this planet. Responses might include movie theaters that show only cartoons, miniature furniture, children’s zoos, and shops selling just children’s clothes and toys. Then you might list on the board all the things they would not find on this planet because these things are unique to adults. This list might include automobiles, voting booths, colleges, and insurance policies.

Distribute the activity sheets and then point out how the illustration on this sheet is just one example of things that happen only to children. Before handing out activity “b,” discuss some television shows which have been developed especially for children. Identify the qualities that make these shows particularly enjoyable for children. Then tell students to think of a story for a new television show for children only. Have the students draw or write their story on the activity sheet. Encourage them to give the show a title.

After completing the assignment, display the pictures on a bulletin board. Allow students to add other ideas and pictures as they think of them. You could make a giant composite list of all the responses from the activity sheets and have the class categorize the responses into different groupings such as “games,” “clothing,” “work,” etc. If any one category is especially lacking in responses, encourage the class to think of more ideas for that category.

**Follow-up Activities**

- Suggest that the children scan the amusement section of the newspaper to find more ideas about local entertainment geared toward specific age groups. Have them make collages of pictures showing activities for children only and for adults only.

- Discuss various activities that more than one age group would enjoy. The class could also discuss the changes that would take place if a child ran the world.

- With younger children, a pantomime of various activities could be fun. Teams could compete to guess each other’s charade and decide for what age group the activity is appropriate. Exploring the various types of activities open to different age groups and discovering those shared by more than one group could help build the child’s concept of the future and how roles and expectations change with age.

**23 Make a Creature**

**Type of Activity**

Figural Systems

**Objectives**

To develop the ability to create an original character by combining given figural information.
To develop imaginative thinking.

**Teaching Suggestions**

Read Dr. Seuss’ *If I Ran the Zoo* (Random House, 1989) to the class. Discuss the imaginary characters that McGrew brought to the zoo. Ask students to imagine that they will be allowed to contribute just one animal to the zoo. It can be as strange as they wish. Discuss their possible choices. Provide scissors, paste, and paper on which to paste cutouts for this activity, and distribute the activity sheets. Encourage them to give the show a title.

After completing the assignment, display the pictures on a bulletin board. Allow students to add other ideas and pictures as they think of them. You could make a giant composite list of all the responses from the activity sheets and have the class categorize the responses into different groupings such as “games,” “clothing,” “work,” etc. If any one category is especially lacking in responses, encourage the class to think of more ideas for that category.

**Follow-up Activities**

- Ask the class to create new zoo characters. Have each child draw one on heavy paper and then color it. Each child should then cut out and paste one character inside the cover of a shoe box. Have the children make bars out of yarn or paper and then paste these bars in front of the animal so that it appears to be in a cage. Display the new zoo collection on the bulletin board. The class could also make a background mural painted on large mural paper.

- Some students may wish to work with three separate animals. They should first name them and draw each one separately. They should then cut all three into three parts and combine the parts from different animals to make three new animals. They could also exchange with those seated near them new animals or parts of animals before combining them into new animals. The class members could work alone or in small groups to make up names for their new animals.
Type of Activity
Semantic and/or Figural Systems

Objectives
To develop imaginative thinking skills.
To develop planning skills.
To increase ability to elaborate on a theme.

Teaching Suggestions
This activity is a good exercise in planning and developing details of an imaginary environment. Begin by reading the first few pages of Lewis Carroll’s *Alice’s Adventures in Wonderland* (Dutton, 1999) to the class. Include Alice’s entrance into the fantasy world down the rabbit hole and then skip to the section that concerns her true entrance to Wonderland through the tiny door. Call the children’s attention to the bizarre appearance of the White Rabbit and to other unusual characteristics of this strange environment (landscape, inhabitants and their dress and personality traits, weather conditions, etc.). You may wish to read other sections of the story if the children are interested—for example, chapter five, which describes the caterpillar, or the part about the Mad Hatter’s tea party. Keep a list on the chalkboard or make an experience chart of the strange and funny details of Wonderland.

Some children may be familiar with *Charlie and the Chocolate Factory* by Roald Dahl (Knopf, 1985) or *The Lion, the Witch, and the Wardrobe* by C. S. Lewis (HarperCollins Juvenile Books, 1997). Both books contain accounts of heroes and heroines entering another world. In the first book, Charlie enters the factory and finds a unique and wonderful group of people in a fairy-tale environment. In the second book, four children enter the mythical legend-inhabited land of Narnia via the back of an old wardrobe. Emphasize the differences between those magical worlds and our everyday world. When the children are aware of the variety of contrasts, distribute the activity sheets. If possible, urge the students to include both illustrations and written explanations of their ideas.

This activity may generate much imaginative energy. The amount of energy and enthusiasm generated will depend on how much excitement and wonder you can communicate and how much you can reinforce the students’ responses. Encourage the children to share their magical worlds with the class. You might list the many details of all of their worlds and see if any are mentioned more than once, or if any are especially unique. You could show the frequency of various responses very concretely with a graph on the chalkboard. You might also categorize the responses. Did, for example, most of the ideas concern strange animals or characters? What category was least frequently mentioned? Display drawings and written descriptions on a bulletin board with an appropriate title or eye-catching border, or compile the work into a soft-cover book for display in the room.

Follow-up Activities
- Give students large paper and colored chalk or watercolors and have them make full-color pictures of their fantasy worlds. They might wish to work together on a wall-sized mural with each child adding her or his own unique details to the scene.
- Students can make puppets to represent the various characters of their fantastic worlds; and the class, or small groups, could produce plays in which the characters express their unusual personalities, habits, interests, or magical abilities. The children themselves could dramatize their worlds, using pantomime or vocal drama. If a holiday is close, the play could incorporate the holiday in its plot. For example, the characters might show how or why they would (or would not) celebrate such a holiday.
- The magical world stimulus could generate a variety of creative writing as extra work, to be done individually or in groups. Stories, poetry, mysteries, or comedies might readily grow out of this theme.
- For social studies, reverse the theme. What if a creature from the magic land accidentally came through a door into our world? What problems might it encounter (social interaction, fulfillment of basic needs, communication, etc.)? Would it have some advantages? This type of discussion draws attention not only to the details of everyday existence, but also to the problems and solutions a foreigner encounters in a world such as ours.
- Since science seems magical in many of its aspects, you could emphasize the wonder of life and its harmony and do (or have students do) simple experiments to show that our world does contain magic in many ways. One just has to dare to go through that Magic Door.


1 Thinking About Things (a)

Cold makes me think of . . .
1 Thinking About Things (b)

Hot makes me think of . . .
Connect the dots to make a picture.
Give it a name.

boat
2 Dot to Dot (b)

Connect the dots to make a picture.
Give it a name.
Can you change the story?
Can you change the story?
Can you make something new?
4  Cut and Create (b)

Can you make something different?
What things make you happy?
What things make you sad?
6 Let’s Celebrate (a)

Decorate some special cakes.

Mother’s Day

pet’s birthday
6 Let's Celebrate (b)

Decorate some special boxes.

- birthday
- first day of school
Can you tell our story?

7  Pictures Tell Stories (a)
7 Pictures Tell Stories (b)

Can you tell our story?
8 What Do You See? (a)

Add some lines to make a picture.
8 What Do You See? (b)

Add some lines to make a picture.
9  How Does Your Garden Grow? (a)

Make some new and different c flowers.

car  clock
9  How Does Your Garden Grow? (b)

Make some new and different flowers. Make their names end alike.

bat

cat
10 Making Faces (a)

Can you show different moods?

happy    angry    sad
10 Making Faces (b)

Can you show different moods?
11 Clues from Clothes (a)

Dress this person for a special job.
11 Clues from Clothes (b)

Draw a disguise for this person.
12 What Do You Think Of? (a)

Sunny days make me think of . . .
12 What Do You Think Of? (b)

Rainy days make me think of . . .
13 Fun with Figures (a)

Add four straight lines.
What do you see?
13 Fun with Figures (b)

Add four straight lines.
What do you see?
14 If I Wrote the Book (a)

How can you change them?
14 If I Wrote the Book (b)

How can you change them?
15 Fun with Letters (a)

What can you make?

C C C C C C C C

H H H H H H H H
15 Fun with Letters (b)

What can you make?

UL

UUUUUU

LLLLLL
16 Room to Fill (a)

What can you put in this kitchen?
16 Room to Fill (b)

What can you put in this shed?
17  Recycling (a)

Draw or tell how you could use these items to make something new.

- wires
- bottle caps
- old socks
17  Recycling (b)

What could you make out of these items?

- cans
- bags
- old spoons
Use these shapes to make a machine.
18 Building Blocks (b)

Use these shapes to make a new machine.
19 Rhyme Time (a)

Can you finish these rhymes?

The rain was falling down.
It covered all of my_____________________.

This morning it was cold.
I put on a hat that was____________________.

You gave me a baseball bat.
Now hand me my new__________________.

I opened the door and ran.
After I saw the______________________.
Can you make new rhymes?

While I was looking **down**
I saw a funny **clown**.

Please fill the ____________________________.
With something that is______________________.

Here is a big____________________________.
I’ll take it into the_______________________.

While deading for the______________________.
I found a red___________________________.
What things can Miss L do?

Lean  

Leap
What things can Mr. D do?

Dig

Dash

D  D  D
21  Letter Look-alikes (a)

What can you make from the letter P?

Pan  Pet
21 Letter Look-alikes (b)

What can you make from the letter B?

Bug

Bunny
22  For Children Only (a)

What things happen to children only?
Think of a story for a new show for children only.
Can you make some new creatures?
23 Make a Creature (b)

Can you make some new creatures?
24 The Magic Door (a)

There is a magic land behind this magic door.
Draw or write what you might find there.
This is the door to a magic school.
Draw or write what you might find there?
## MARK A: Activity Sheet Record

<table>
<thead>
<tr>
<th>ACTIVITY</th>
<th>DATE</th>
<th>CLASS REACTION</th>
<th>FOLLOW-UP ACTIVITIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thinking About Things</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(a)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(b)</td>
<td></td>
</tr>
<tr>
<td>Dot to Dot</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(a)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(b)</td>
<td></td>
</tr>
<tr>
<td>A Tale Retold</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(a)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(b)</td>
<td></td>
</tr>
<tr>
<td>Cut and Create</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(a)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(b)</td>
<td></td>
</tr>
<tr>
<td>Feelings</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(a)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(b)</td>
<td></td>
</tr>
<tr>
<td>Let’s Celebrate</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(a)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(b)</td>
<td></td>
</tr>
<tr>
<td>ACTIVITY</td>
<td>DATE</td>
<td>CLASS REACTION</td>
<td>FOLLOW-UP ACTIVITIES</td>
</tr>
<tr>
<td>----------------------------------------------</td>
<td>------</td>
<td>----------------</td>
<td>----------------------</td>
</tr>
<tr>
<td>7 Pictures Tell Stories (a)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pictures Tell Stories (b)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8 What Do You See? (a)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>What Do You See? (b)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9 How Does Your Garden Grow? (a)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>How Does Your Garden Grow? (b)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10 Making Faces (a)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Making Faces (b)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11 Clues from Clothes (a)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clues from Clothes (b)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12 What Do You Think Of? (a)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>What Do You Think Of? (b)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Copyright ©2000 by Creative Learning Press, Inc.
<table>
<thead>
<tr>
<th>ACTIVITY</th>
<th>DATE</th>
<th>CLASS REACTION</th>
<th>FOLLOW-UP ACTIVITIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>13 Fun with Figures</td>
<td>(a)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fun with Figures</td>
<td>(b)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14 If I Wrote the Book</td>
<td>(a)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>If I Wrote the Book</td>
<td>(b)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15 Fun with Letters</td>
<td>(a)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fun with Letters</td>
<td>(b)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>16 Room to Fill</td>
<td>(a)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Room to Fill</td>
<td>(b)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>17 Recycling</td>
<td>(a)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recycling</td>
<td>(b)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18 Building Blocks</td>
<td>(a)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Building Blocks</td>
<td>(b)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## MARK A: Activity Sheet Record

<table>
<thead>
<tr>
<th>ACTIVITY</th>
<th>DATE</th>
<th>CLASS REACTION</th>
<th>FOLLOW-UP ACTIVITIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>19 Rhyme Time (a)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rhyme Time (b)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20 Far Out Letters (a)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Far Out Letters (b)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21 Letter Look-alikes (a)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Letter Look-alikes (b)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>22 For Children Only (a)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>For Children Only (b)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>23 Make a Creature (a)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Make a Creature (b)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>24 The Magic Door (a)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The Magic Door (b)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Copyright ©2000 by Creative Learning Press, Inc.