

**TORRANCE  
TESTS  
OF  
CREATIVE  
THINKING**

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**DIRECTIONS MANUAL  
AND  
SCORING GUIDE**

**Figural Test Booklet A  
1972 Revision**

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## INTRODUCTION

This manual includes directions for administering and scoring the *Torrance Tests of Creative Thinking, Figural Form A*. The figural test is appropriate for use in kindergarten through graduate school. Other tests in this series include an alternate Figural Test, Form B, and two Verbal Tests, Forms A and B. Verbal tests may be used with groups in fourth grade through graduate school and as an individual test in kindergarten through the third grade. For each test there is a manual designated as the Directions Manual and Scoring Guide, containing all information necessary to administer and score the test. A single Norms-Technical Manual, covering all four tests, includes the theoretical and statistical background material underlying testing of creative thinking. It also includes normative information.

Examiners should note that the test booklets are titled *Thinking Creatively With Pictures, Booklet A*. This is the "working title" for the Figural Test, Form A, and it is employed in an attempt to reduce the examinee's perception of being tested when he is confronted with creative thinking materials. Although the booklets will be referred to as "tests" in the manuals and other material designed for the examiner, use of "tests" and testing terminology with the pupils is discouraged.

Examiners not familiar with Dr. Torrance's concepts of creative thinking and its measurement are urged to inform themselves before using this test. Much of this background material is to be found in the Norms-Technical Manual which also includes an extended bibliography of the author's publications. Five especially helpful references follow.

- Torrance, E. P. *Guiding Creative Talent*. Englewood Cliffs, N. J.: Prentice-Hall, 1962, Chaps. 2, 3, Appendix.
- Torrance, E. P. *Rewarding Creative Behavior: Experiments in Classroom Creativity*. Englewood Cliffs, N. J.: Prentice-Hall, 1965, Chap. 3 and Appendix A.
- Torrance, E. P. "The Minnesota Studies of Creative Behavior: National and International Extensions." *Journal of Creative Behavior*, 1967, 1, 137-154.
- Torrance, E. P. "Examples and Rationales of Test Tasks for Assessing Creative Abilities." *Journal of Creative Behavior*, 1968, 2, 165-178.
- Torrance, E. P. "Prediction of Adult Creative Achievement among High School Seniors." *Gifted Child Quarterly*, 1969, 13, 223-229.

## PREPARING FOR THE TEST

The figural forms of the *Torrance Tests of Creative Thinking* require responses that are mainly drawing or pictorial in nature. Use of the Figural Test batteries is recommended in kindergarten through graduate school. A small amount of writing is required of the examinees when they are directed to label or name some of the pictures they have drawn. With children who are not yet writing, this part of the test is accomplished by the examiner. It is usually desirable to have one or more assistants available to help with this task when children in kindergarten or the early primary grades are being tested.

Before administering the tests, the examiner should read completely through the directions, familiarizing himself with all aspects of the mechanics of administration. No accessories are required for giving the figural tests.

Examiners should note that the word "test" has not been used on the booklet nor in the printed instructions. If the examinees' materials must be referred to, the use of a word like "booklet" or "exercises" is suggested. However, if examiners follow the procedures in the section "Administering the Figural Tests," the proper language and non-test atmosphere can be developed. It is recommended that, in general, a game-like, thinking, or problem-solving atmosphere be created. Try to avoid the threatening situation frequently associated with testing. Create the expectation that examinees will enjoy the activities and invite them to "have fun." The psychological climate, both preceding and during the use of the tests, should be as comfortable and stimulating as possible. The only exception to this principle would be the condition under which the examiner is conducting some controlled experiment involving stress.

The format of the test booklet was designed deliberately to facilitate the "warm-up" process necessary for any kind of creative behavior. The design on the cover consists of apparently unrelated combinations of elements and usually evokes curiosity, imaginative activity, and interest. Such a format may strike some test experts as unorthodox and untestlike. The author, however, considers this feature an essential part of the testing procedure.

The examiner should also assure that the physical conditions for testing are good. Make certain that an adequate supply of test booklets is at hand, that everyone has a pencil (ordinary pencils will do) or crayon, that room temperature is as comfortable as weather conditions and existing facilities for the control of temperature and atmosphere permit.

Examinees need no equipment other than their booklets and pencils or crayons. (It is recommended that teachers and examiners follow whatever is normal classroom policy or procedure in giving pupils access to boxes of crayons.) Examiners will need a copy of this manual, a copy of the test booklet for reference, and an accurate timing device, preferably a stop watch.

Testing in large groups of combined classes in lunch rooms, auditoriums, and the like should be avoided. In most cases, the usual class size of 15 to 35 is all right. Where practical, however, it is suggested that children in kindergarten through fourth grade be tested in smaller groups. For example, it might be possible to split a class of 30 into two groups of 15 each and test them in different rooms. Or, the testing activity could be alternated with some other activity. It is not necessary to administer the figural form individually to children after they have learned to draw with pencil or crayon.

The actual pupil working time on the figural tests is 30 minutes. To cover preliminary instructions, handing out papers, etc., no less than 45 minutes free of interruptions should be scheduled for the test. Usually, pupil interest in the tests is so high that fatigue is no problem and the entire booklet can be completed in one sitting. Should fatigue become evident, however, the examiner may give the group a short break between any two of the activities in the booklet.

If both the figural and the verbal tests are to be administered, it is recommended that they be accomplished in two different sittings. At the very least, a break should intervene between the two testings.

## ADMINISTERING THE FIGURAL TESTS

The following section contains the directions for administering the Figural Tests of the *Torrance Tests of Creative Thinking* battery, including the wording of comments and directions the examiner makes to the pupils. Preliminary comments are enclosed in quotation marks and may be modified somewhat to fit appropriately the special conditions of testing. Specific instructions to pupils for procedures on the three activities of the test booklet are printed in bold face type. These instructions in bold face should be read from this manual, precisely as written, without modification.

It is realized that slight modifications will always have to be made in administration procedures, depending upon the purposes and conditions of the testing. Since this battery may be used from kindergarten through graduate school, slight modifications have to be made on account of differences in writing ability, vocabulary, and the like. This is especially true of the initial orientation or warm-up. Timing and other instructions given by the examiner, however, should be as uniform as possible. Some workers may want to give more liberal time limits for elementary school children who are handicapped in recording their ideas by limited drawing skills. Such workers, however, should recognize that the norms given in this manual will not be applicable. Changes in time limits may also affect the reliability and validity of the measures but a great deal more developmental work needs to be done before the precise nature of these changes can be determined.

### Preliminary Instructions to Pupils

If one of the figural forms is given alone or before the verbal form, an orientation similar to that outlined in the paragraph below should be used. If given after a verbal form, little added explanation or orientation will be needed. The examiner might simply indicate that in the first booklet, pupils had to express their ideas in words. In this booklet, they will express their ideas in other ways.

Before passing out the test booklets, the teacher or administrator should give a brief orientation that will make sense to the particular group, be honest, arouse interest and motivate performance. Some modification of the following might be used:

"I believe you will have a lot of fun doing the activities we have planned for this period. We are going to do some things that will give you a chance to see how good you are at thinking up new ideas and solving problems. They will call for all of the imagination and thinking ability you have. So I hope that you will put on your best thinking cap and that you will enjoy yourself."

If there are to be successive administrations of the test or an alternate form, it is usually a good idea to set up this expectation even in the initial administration. Successive administrations are frequently planned in experimental programs designed to evaluate the relative

effectiveness of methods, materials, organizational innovations, and the like, and can be explained along with the purpose of the entire program. An explanation such as the following might be made:

“One of the things we would like to find out is how much you improve between now and later in your ability to think up new ideas, use your imagination, and solve problems. You know, if we wanted to know how much you grow in weight or height during a particular period, we would weigh you or measure your height now and again at the end of that period of time. This is what we want to do regarding your ability to think of ideas. We are going to take a measurement today and another at the end of the school year (quarter, month, etc.). We want to get as accurate a measurement today as we can. So use your best thinking cap, and do your best.”

Within the context of the situation, the activity should be made as non-threatening as possible, unless some stress factor is a deliberate part of the experimental design.

### Specific Instructions for Administering Test Activities

At this point, pass out the booklets. Next, have each individual fill in the blanks at the top of the page quite carefully. Make certain that the year is entered as part of the date so there will be no confusion or needless loss of data in longitudinal studies or studies involving pre-test and post-test designs.

Children in kindergarten and the primary grades will need some help with their writing or spelling. Or, the information on the face of the booklet may be filled in by the teacher or test administrator in advance from the school records and each pupil given his “very own” booklet.

After the identifying information has been provided, read these instructions:

In this booklet are three interesting things for you to do. All of them will give you a chance to use your imagination to think of ideas and to put them together in various ways. In each activity, we want you to think of the most interesting and unusual ideas you can—ideas that no one else in this group will think of. After you think of an idea keep adding to it and build it up so that it will tell the most interesting and exciting story possible.

You will be given a time limit on each activity, so make good use of your time. Work fast but don't rush. Try to keep thinking of ideas, but if you run out of ideas before time is called, sit quietly and wait until you are told to turn to the next page.

If you have any questions after we start, don't speak out loud. Raise your hand and I shall come to your desk and try to answer your questions.

If there are no questions at this point, proceed with the first activity. If there are questions concerning the instructions, attempt to satisfy them by repeating the instructions in words that the person will understand or by elaborating upon the instructions in the printed booklet. Avoid giving examples or illustrations of "model responses." This tends to reduce originality and in some cases it even reduces the number of responses produced. Above all, attempt to maintain a friendly, comfortable, warm relationship with the group.

Ask the class to turn to page 2, Activity 1, **PICTURE CONSTRUCTION**. Ask those who can to read the instructions with you, continuing as follows:

On the opposite page is a curved shape. Think of a picture or an object which you can draw with this shape as a part.

Try to think of a picture that no one else will think of. Keep adding new ideas to your first idea to make it tell as interesting and exciting story as you can.

When you have completed your picture, think up a name or title for it and write it at the bottom of the page in the space provided. Make your title as clever and unusual as possible. Use it to help you tell your story. (Examiners and teachers will write down the titles for children who need such help.)

Go ahead with your picture, making it different from anyone else's and making it tell as complete and as interesting a story as possible. You will have ten minutes.

Most examinees will be anxious to begin, so answer questions as expeditiously as possible and permit them to begin working. At the end of about nine minutes, pupils who have not yet entered a title for their drawing on the line at the bottom of page 3 may be reminded that they are to do so and encouraged to accomplish it.

Using a stop watch, allow **TEN MINUTES** before calling time. Ask the group to turn to page 4, Activity 2, **PICTURE COMPLETION**. Again, ask the group to read the instructions as you read them aloud (except of course with younger children who cannot read):

By adding lines to the incomplete figures on this and the next page, you can sketch some interesting objects or pictures. Again, try to think of some picture or object that no one else will think of. Try to make it tell as complete and as interesting a story as you can by adding to and building up your first idea. Make up an interesting title for each of your drawings and write it at the bottom of each block next to the number of the figure.

All right, go ahead! You will have ten minutes.



If some examinees are upset by the fact that they did not finish, reassure them very simply by saying something like the following:

"I notice that you work in different ways. Some of you finished all ten of your drawings very quickly and then went back and added other ideas. Some of you finished only a few of the drawings but you made each of them tell a very complete story. Continue to work in whatever way is natural and comfortable for you."

Using a stop watch, allow **TEN MINUTES** before calling time. Ask the pupils to turn to page 6, Activity 3, **LINES**. Again, have the group read the instructions as you read them aloud:

In ten minutes see how many objects or pictures you can make from the pairs of straight lines below and on the next two pages. The pairs of straight lines should be the main part of whatever you make. With pencil or crayon add lines to the pairs of lines to complete your picture. You can place marks between the lines, on the lines, and outside the lines—wherever you want to in order to make your picture. Try to think of things that no one else will think of. Make as many different pictures or objects as you can and put as many ideas as you can in each one. Make them tell as complete and as interesting a story as you can. Add names or titles in the spaces provided.

All right, go ahead. You have ten minutes.

Although instructions have indicated that the activity includes three pages and instructions are given at the bottom of the page 6 to "go on to next page," some children will not grasp this fact and will ask about it or have to be reminded. This may occur even in testing college students and adults, so be alert to this possibility. Time the Activity very carefully, using a stop watch, if possible.

After **TEN MINUTES**, call time and collect booklets. If the children were unable to write their own titles or labels, be prepared to interview each child briefly to obtain titles or labels. Otherwise reliable scoring will not be possible. It is usually desirable to have one or more assistants available to help with this task, when testing children in the kindergarten and primary grades.

## HOW TO USE THE SCORING GUIDE

### Who Can Score Creative Thinking Tests.

Studies of scorer reliability have shown that individuals specially trained and experienced in the scoring of the *Torrance Tests of Creative Thinking* are capable of scoring them with a very high degree of reliability. To answer the question about the reliability of results derived by *untrained* scorers, an experiment was conducted in which regular classroom teachers and educational secretaries scored tests without benefit of any training other than the study of the scoring manuals. Results available for six teachers and one educational secretary indicate that *when the scoring guide is carefully studied and accepted*, scores of acceptable reliability are obtained. The mean Pearson product-moment coefficients between the scoring of trained scorers and untrained teachers for the figural tests are: fluency, .96; flexibility, .94; originality, .86; and elaboration, .91. The mean reliability coefficients for the verbal tests are: fluency, .99; flexibility, .95; and originality, .91. The results for the one educational secretary are: fluency, .99; flexibility, .98; originality, .76; and elaboration, .87. The lower reliability for originality seems to occur when the scorer rejects the scoring guide and substitutes his own concept of what is original. A more complete analysis of the scorer reliability study will be found in the Norms-Technical Manual.

These findings suggest that it is not necessary to have special training in scoring these tests to assure reliable results. What does appear to be necessary is that the scorer *read and follow the scoring guide as precisely as possible, accepting the standards of the guide as a basis for judgment.*

### Procedures for Scoring.

1. Read the scoring guide, noting its organization. If the examiner does not yet have an understanding of the concepts of fluency, flexibility, originality, and elaboration, he should do some supplementary reading\* of the rationale of the *Torrance Tests of Creative Thinking*. He should also familiarize himself with the rationale for the three figural test tasks contained in this battery.

2. Reread the scoring guide with a completed record, locating the responses on it in the lists of scoring categories and originality weights. First, however, determine whether the response is scoreable, i.e., has relevance to the test task. No entries or tabulations are made on the scoring worksheets for responses that are considered "not scoreable."

3. Now, the examiner should be ready to begin the scoring. A scoring worksheet (see reproduction, page 38) has been designed to

\* Reading the introductory sections of the Norms-Technical Manual is especially recommended. See also publications listed in the Introduction of this manual and in the extended bibliography of the Norms-Technical Manual.

reduce the amount of time required to score a test and to increase the reliability of scoring. After entering the desired identifying information, it is suggested that he proceed as follows:

**Step 1. Scoring Picture Construction Activity.** Determine from the Scoring Guide the originality weight for the response and place this score in the box labeled "Orig." under "Activity 1." Next, determine the elaboration score and place this number under the "Elab." column for "Activity 1."

**Step 2. Scoring Picture Completion.** Using the Guide, determine the originality weight and flexibility category for the first response and enter these numbers in the "Categ." and "Orig." columns under "Activity 2." If the response is a zero or one-credit response, the flexibility category will be found in parentheses at the left of the response as listed in the originality scoring guide. It will be necessary to find the category of the two-credit responses in the list of flexibility categories. Now, determine the elaboration score of the first response and enter it in the "Elab." column under "Activity 2." Continue in this way for each scoreable response in Activity 2. To indicate omissions enter a dash in the appropriate blanks.

**Step 3. Scoring Parallel Lines.** Using the Guide, determine for each scoreable response the flexibility category, the originality weight, and the elaboration score and record in the appropriate boxes of the scoring worksheet. It is suggested that the examiner start with the guide for scoring originality. In this guide, the most frequent responses are listed alphabetically with both their originality weights and flexibility categories. It is then an easy matter to look up the category numbers of the less frequent or three-credit responses.

**Step 4. Summarizing the Results.** The examiner is now ready to summarize his scoring in the "Score Summary" box on the right side of the scoring worksheet. Since there is only one response for Activity 1 and it is not scored for flexibility and fluency, simply transfer the originality and elaboration scores to the score box, entering them in the "Orig." and "Elab." columns for "Act. 1." The fluency score for Activity 2 can be read directly by noting the marginal number adjacent to the last response, if there were no omissions or unscorable responses. Otherwise, it will be necessary to count the number of scoreable responses. To determine the flexibility score, strike out category duplications under the "Categ." column and count the remaining responses. To obtain the originality score, simply add the weights recorded in the "Orig." column under Activity 2. The elaboration score is obtained in the same manner. The scores for Activity 3 are determined in the same manner as for Activity 2. The bonus points for originality awarded for combining two or more figures in Activity 3 should be added in with the other originality credits. The procedures for awarding bonus credits are described on pages 33-34.

The examiner may confront a scoring situation in which an activity has been completely omitted by the examinee. An omission may happen

for a number of psychological reasons (rigidity, test anxiety, etc.) which may inhibit creative performance. In this event the scorer should enter zeros as scores in the score summary box and proceed as directed.

Now the examiner should be ready to compute the totals for each of the four columns of the "Score Summary" box. These are the raw scores for fluency, flexibility, originality, and elaboration for the Figural test. In many cases one will not need to go further. For certain purposes, however, the examiner will want to convert the raw scores to standard scores or T-scores.\* This should be done whenever he finds it necessary to combine scores for some kind of composite or total score, whenever he wants to determine the relative strengths of the four kinds of ability (fluency, flexibility, originality, and elaboration) of a given individual or group, or whenever he wants to compare an individual's performance with some of the comparison groups for which data are given in the technical manual. The data for converting raw scores into standard (T) scores are included in the Norms-Technical Manual.

4. Both immediately and from time to time, the examiner will want to obtain some indication of the reliability of his scoring. If possible, he should have someone else score four or five of the same records he has scored and then discuss any discrepancies. Then, with a sample of 20 to 40 records, he might want to compute reliability coefficients † for each of the four scores. Another useful kind of reliability check is to rescore a set of tests after a lapse of one or more weeks. If the scoring worksheets are used, these kinds of checks will be easy.

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\* See standard statistics or tests-and-measurement text for explanation of these scores.

† This coefficient is found by computing the correlation between the scores found by two scorers on the same set of tests. Most statistics texts explain the computational methods.

## SCORING GUIDE FOR THE FIGURAL TESTS, FORM A

The current edition of the Figural A scoring guide includes the revised originality weights introduced in the January, 1970 edition. Those weights are based on an enlarged sample of 500 individuals and incorporate an upward extension of the sample to include college students. A comparison study has shown that mean originality scores of Figural A booklets scored using the originally published weights are unaffected when scored by the 1970 weights.

Each of the three tasks will be scored for *originality* and *elaboration* and Picture Completion and Parallel Lines will be scored also for *fluency* and *flexibility*. The pages that follow contain the guides for determining these scores.

### Activity 1: PICTURE CONSTRUCTION

#### Originality

The scoring guide for originality on the Picture Construction Test is based on the responses of 500 subjects ranging from kindergarten through college. Scoring is accomplished on a scale ranging from zero to five according to frequency of occurrence in the 500 records analyzed. Responses occurring on five per cent or more of the records receive no credit. Other obvious responses such as "tear drop," "blob," "pear," and the like are also scored zero. Responses occurring in from 4.00 per cent to 4.99 per cent receive one point; responses found in 3.00 to 3.99 per cent of the records are scored two; those occurring in 2.00 to 2.99 per cent of the cases are awarded three credits; those found in from 1.00 to 1.99 of the records receive four credits. All other responses showing imagination and creative strength are credited with five points. The guide given below lists the responses falling in each of the first five categories, but the responses falling in the sixth category are relatively unique and numerous and only some of the more frequent ones are listed.

NOTE: The concept of "creative strength" is an important one and the examiner should attempt to master the idea well. Possibly the best way to accomplish this is to study the originality weights assigned responses in the scoring guide, noting the differences between examples of zero-credit (not original) and responses showing creative strength. It may also prove helpful to think of responses showing no creative strength as requiring little intellectual energy; little energy is necessary to give obvious, common, and learned responses. In contrast, more intellectual energy is required to give responses that go beyond what is learned, practiced, habitual, and away from the obvious and commonplace. Hence, these latter kinds of responses are thought of as "showing creative strength."

Response	Weight	Response	Weight
Abstract design without meaningful title	0	Flower	4
Airplane	5	Flying object (UFO)	5
Balloon	4	Girl (lady, female)	1
Bird(s)	3	Golf green	5
Bug	4	Hat	5
Bunny	4	Humpty Dumpty	4
Car	5	Man (all kinds except from outer space)	0
Cat	4	Man (from outer space)	3
Chicken	4	Monster	5
Circle	0	Mouse	4
Cloud	5	Mouth	5
Dinosaur	5	Nose	3
Duck	5	Pond (lake)	5
Ear (human)	4	Rabbit	4
Ear (animal)	5	Rock	5
Egg (Easter)	0	Rocket	5
Egg (not Easter)	0	Spaceship	3
Egg (in basket)	0	Swimming pool	5
Eggman; egghead, etc.	3	Sun	4
Eye	4	Teardrop	0
Face (human)	2	Tree	5
Fish	5	Turtle	5

**Title Originality (Optional. May be counted as a part of the Verbal Score.\*)**

The titles are evaluated on a scale ranging from zero to three on originality or cleverness according to the following criteria:

- 0 Obvious class titles, such as "Man," "Egg," "Rabbit," etc.
- 1 Simple descriptive title at a concrete level, involving a modifier plus a class, such as "Man with a Big Ear," "A Speckled Egg," "An Easter Rabbit," etc.
- 2 Imaginative, descriptive title in which the modifier goes beyond concrete, physical description, such as "Uncle John's Frozen Ear," "The Speckled Egg of Mars," "The Rabbit that Tricked Uncle Remus," etc.
- 3 Abstract but appropriate title, going beyond what can be seen and telling a story, such as "Mighty Giovanni of the Frozen Alps," "A Bird in a Cage with a Thousand Eyes," "Princess Mona's Golden Bunny," etc.

### Elaboration

Two assumptions underlie the scoring of elaboration for the Picture Construction Test. The first is that the minimum and primary response

\* See the Norms-Technical Manual for an explanation of this point.

to the stimulus figure is a single response. The second is that the imagination exposition of detail is a function of creative ability, appropriately labeled elaboration.

Therefore, in scoring elaboration, credit is given for each pertinent detail (idea) added to the original stimulus figure itself, to its boundaries and/or to the surrounding space. However, the basic response itself must be meaningful before elaboration has any worth, or can be scored.

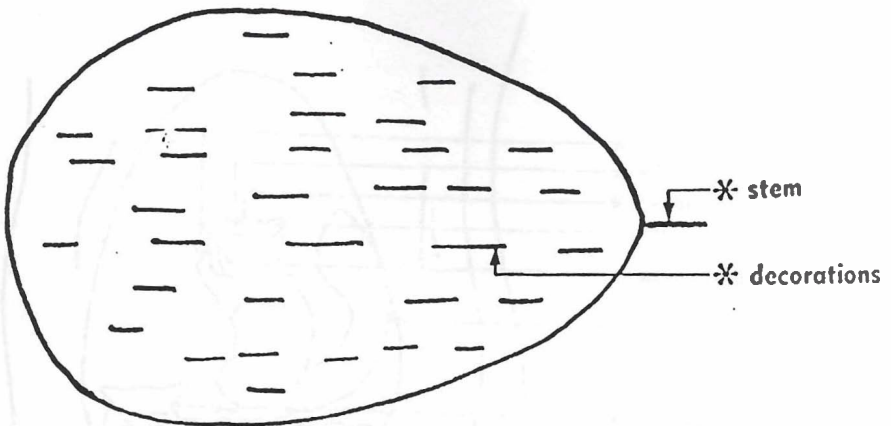
One point is given for:

1. Each essential detail of the total response; but once that class of detail is scored, further responses of the same class are not counted. In other words each additional *idea* that contributes to the story the picture tells is given an elaboration point, but further representations of the idea are not. Thus the idea, "holes in cheese" on Example 2, page 16 merits one elaboration point, but *every* hole does not; '(bricks)' in Example 3, page 37 gets one point for the idea, not one point for *every* brick. On the other hand, each cactus plant in the sample Activity 1, page 39 receives a point because each *adds* an idea—width, dimensionality, depth, size, etc.
2. Color, when it adds an idea to the basic response.
3. Deliberate shading (not just going over the lines again).
4. Decoration, only when meant as such.
5. Each major variation (not of quantity) of design which is meaningful with reference to the total response.
6. Each elaboration in the title beyond the minimum descriptive label.

If a line breaks one part of the picture into two, count the two parts. If the line has meaning (e.g., belt, cuff, seam, neck scarf, window piece, etc.) give an additional point for that item.

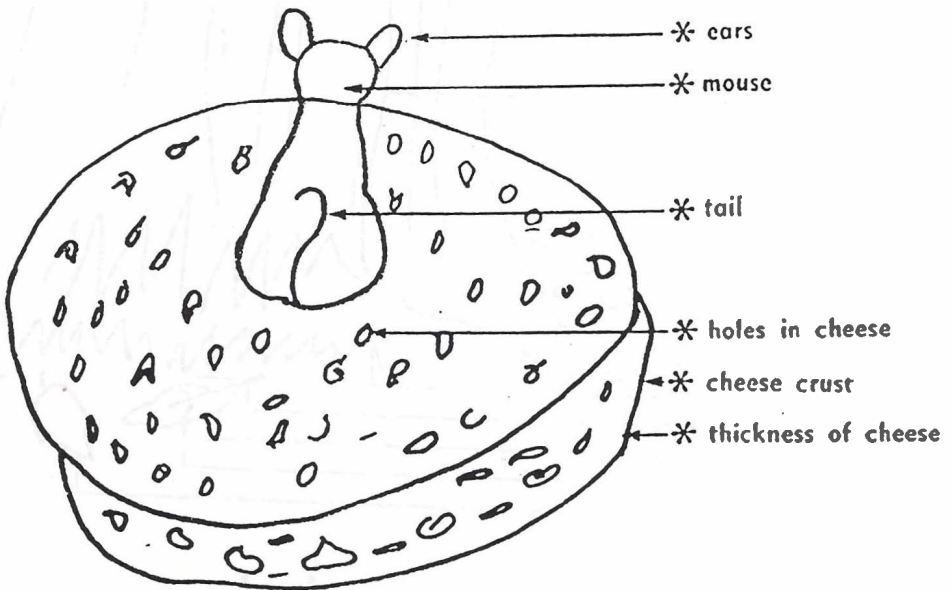
The following examples of three levels of elaboration are offered as illustrations:

### Example 1



Title: Pear Points shown by asterisk (\*). Elaboration Score: 2

### Example 2

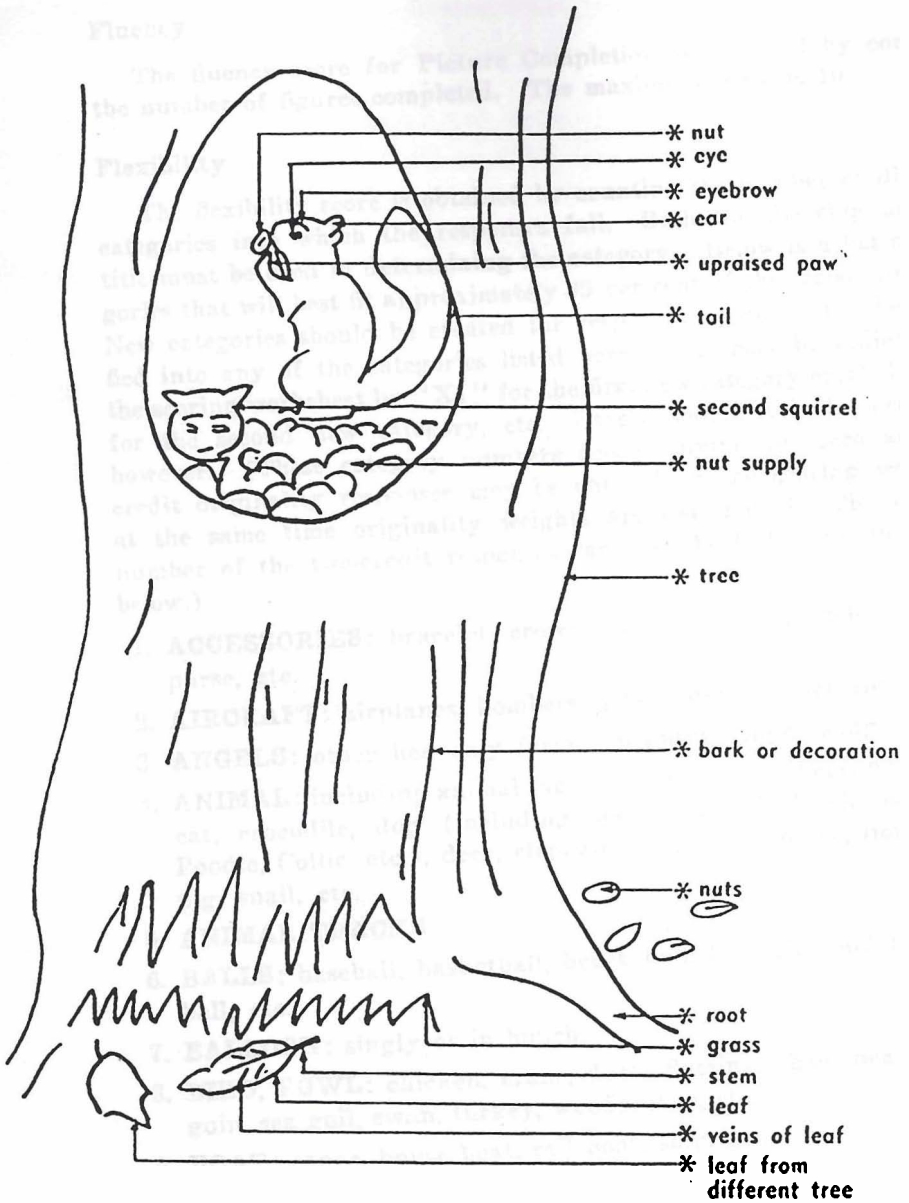


Title: A Fat Mouse in Cheese Heaven Elaboration Score: 8

Note: The basic object is the block of cheese made from the stimulus. Credit is for ideas added to basic object.



### Example 3



Title: Fall Festival in Squirrel Land

Elaboration Score: 19

Note: The basic response here is the Squirrel Hole or Nest.

## Activity 2: PICTURE COMPLETION

### Fluency

The fluency score for Picture Completion is obtained by counting the number of figures completed. The maximum score is 10.

### Flexibility

The flexibility score is obtained by counting the number of different categories into which the responses fall. Both the drawing and the title must be used in determining the category. Below is a list of categories that will best fit approximately 99 per cent of the responses given. New categories should be created for responses which cannot be classified into any of the categories listed here. This may be indicated on the scoring worksheet by "X1" for the first new category created, "X2" for the second new category, etc. Rarely should this be necessary, however. (These category numbers accompanying the zero and one-credit originality responses may be entered on the scoring worksheet at the same time originality weights are determined. The category number of the two-credit responses can then be looked up in the list below.)

1. **ACCESSORIES:** bracelet, crown, glasses, hat, monocle, necklace, purse, etc.
2. **AIRCRAFT:** airplanes, bombers, jets, rockets, space ships, etc.
3. **ANGELS:** other heavenly forms, including angel wings.
4. **ANIMAL:** including animal faces and heads: ape, bear, bull, camel, cat, crocodile, dog (including specific breeds, such as French Poodle, Collie, etc.), deer, elephant, frog, goat, horse, lion, mouse, pig, snail, etc.
5. **ANIMAL TRACKS**
6. **BALLS:** baseball, basketball, beach ball, football, mud ball, snow ball, etc.
7. **BALLOON:** singly or in bunch
8. **BIRD, FOWL:** chicken, crane, duck, flamingo, hen, peacock, penguin, sea gull, swan, turkey, woodpecker, etc.
9. **BOAT:** canoe, house boat, sail boat, ship, etc.
10. **BODY PARTS:** bone, ear, eye, feet, hands, heart, lips, mouth, nose, tongue, etc.
11. **BOOK:** singly or in case, magazines, newspapers, etc.
12. **BOX:** including packages, gifts, presents, etc.
13. **BUILDING:** apartment house, bee house, animal house, church, hotel, house, oriental house, pagoda, temple, etc.
14. **BUILDING MATERIAL:** brick, lumber, pipe, stone, etc.
15. **BUILDING, PARTS OF:** door, floor, walls, roof, window, etc.
16. **CAMPFIRE**

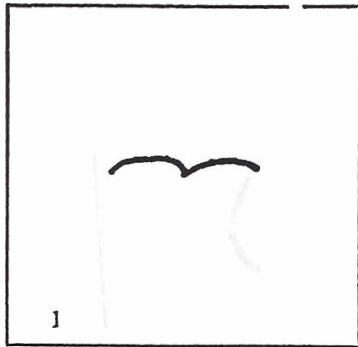
17. **CANE:** candy cane, walking cane, etc.
18. **CAR:** automobile, racer, tractor, truck, etc.
19. **CLOTHING:** bathing suit, blouse, coat, dress, hat, pants, shirt, shorts, skirt, etc.
20. **CLOTHES LINE:** washday and similar uses of clothes lines
21. **CLOUD:** any type of cloud or cloud formation, sky, etc.
22. **CONTAINER:** barrel, box, can, hat box, jug, tank, etc.
23. **CROSS:** Christian Cross, Red Cross, etc.
24. **DESIGN OR DECORATION:** any type of abstract design which cannot be identified as an object, mess, modern art, ribbon bow, etc.
25. **EGG:** including Easter egg, fried eggs, egg characters such as Humpty Dumpty, etc.
26. **ENTERTAINMENT:** circus, dancer, ringmaster, singer, etc.
27. **FISH AND SEA ANIMALS:** gold fish, guppies, whale, etc.
28. **FLOWER:** cactus, daisy, tulip, etc.
29. **FOOD:** bread (loaf), cake, candy, donut, hot dog, hamburger, ice cream, lollipop, marshmallow, nuts, sucker, toast, etc.
30. **FOOTWEAR:** boots, slippers, shoes, etc.
31. **FRUIT:** apple, banana, bowl of fruit, cherries, grapes, lemon, orange, pear, etc.
32. **FURNITURE:** bed, chair, desk, table, TV, etc.
33. **GEOGRAPHY:** beach, cliff, lake, mountain, ocean, river, volcano, waves, etc.
34. **GEOMETRIC FORMS OR DESIGNS:** circle, cone, cube, diamond, square, rectangle, triangle, etc.
35. **HEAVENLY BODY:** Big dipper, constellation, eclipse, moon, star, sun, etc.
36. **HOUSEHOLD ITEMS:** bowl, broom, brush, coffee pot, clock, coat rack, dipper, hanger, tea cup, tooth brush, silverware, etc.
37. **HUMAN BEING, HUMAN FORM:** including human faces, person, specific person such as Mitch Miller, Zsa Zsa Gabor, etc., cowboy, etc.
38. **INSECT:** ants, bee, beetle, bug, butterfly, caterpillar, firefly, flea, fly, praying mantis, spider, tarantula, worm, etc.
39. **KITE**
40. **LADDER**
41. **LETTERS:** of alphabet, singly or on blocks
42. **LIGHT:** candle, flood light, lamp, lantern, electric light, magic lamp, etc.
43. **MACHINE:** coke machine, robot, reducing machine, etc.

44. **MUSIC:** band instruments, bells, cymbal, drum, harp, music stand, musical notes, piano, treble clef, violin, stem of violin, whistle, etc.
45. **NUMERALS:** singly or on blocks
46. **OFFICE AND SCHOOL SUPPLIES:** envelope, paper, paper-weight, paper clip, notebook, etc.
47. **PLANT:** grass, shrubbery, etc.
48. **RECREATION:** fishing pole, tennis, Ferris wheel, slide, swing, surf board, roller coaster, swimming pool, ski jump, etc.
49. **ROAD AND ROAD SYSTEM:** bridge, highway, road, road map, turnpike, etc.
50. **ROOM OR PART OF ROOM:** floor, corner of room, wall, etc.
51. **SHELTER (not house):** farm shed, fox hole, tent, tepee, etc.
52. **SNOWMAN**
53. **SOUND:** radar waves, radio sound waves, tuning fork, etc.
54. **SPACE:** space man, launching pad, rocket man, etc.
55. **SPORTS:** baseball diamond, goal post, race, race track, etc.
56. **STICK MAN (see HUMAN FORM: do not use a new category)**
57. **SUN AND OTHER PLANETS (See HEAVENLY BODIES, not a new category)**
58. **SUPERNATURAL BEINGS:** Aladdin, devil, ghost, Dracula, fairy, Hercules, monster, outerspace creature, witch, etc.
59. **SURFACE TRANSPORTATION (See CAR: not a new category)**
60. **SYMBOL:** badge, flag, question mark, peace symbol, etc.
61. **TIMER:** sand clock, hour glass, sundial, etc.
62. **TOOL:** axe, claw hammer, hammer, rake, etc.
63. **TOY:** jack-in-box, puppet, rocking horse, yo-yo, etc.
64. **TREE:** All kinds of trees, Christmas tree, holly tree, etc.
65. **UMBRELLA**
66. **WEATHER:** lightning, rain, rainbow, rain drops, snow storm, tornado, etc.
67. **WEAPON:** bow and arrow, cannon, gun, rifle, slingshot, etc.
68. **WHEELS:** inner tube, tire, cart wheel, wheel, etc.

### Originality

The guide for scoring originality is based on a tabulation of the responses submitted by 500 subjects from kindergarten through college. A separate guide has been prepared for each of the ten figures, since each tends to elicit different common responses. Zero and one-point responses are listed below. All other responses showing imagination and creative strength will be awarded *two points*. To facilitate scoring for flexibility, the category number has been placed in parentheses at the left of each response...

**FIGURE 1**



**Zero points (5% or more of responses)**

- (24) Abstract design without meaningful title
- (8) Bird
- (37) Face or head
- (10) Heart (includes valentine)
- (37) Man (earth), includes boy

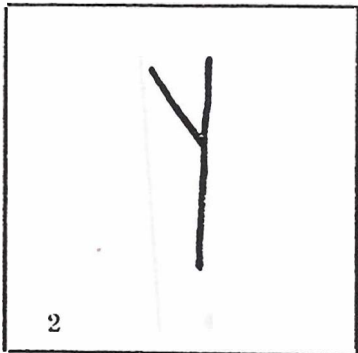
**One point (2% to 4.99%)**

- (31) Apple(s)
- (21) Cloud
- (10) Eyebrows
- (1) Glasses, eye
- (37) Girl or woman
- (10) Lips, mouth
- (58) Man (Mars, etc.)
- (58) Monster

**Two points (less than 2% of responses)**

Other responses showing creative strength. Look up category in list.

**FIGURE 2**



**Zero points (5% or more of responses)**

- (24) Abstract design without meaningful title
- (67) Slingshot
- (64) Trees

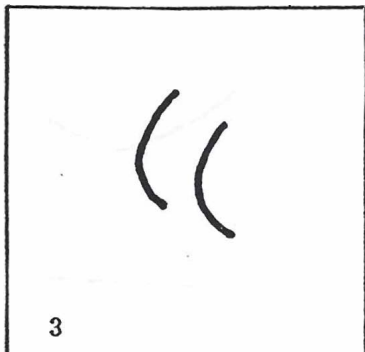
**One point (2% to 4.99%)**

- (37) Face (human)
- (28) Flower
- (37) Girl
- (13) House
- (37) Man (boy)
- (37) Woman (girl)
- (60) Word (symbol, number, letter, etc.)

**Two points (less than 2% of responses)**

Other responses showing creative strength. Determine category from list.

**FIGURE 3**



**Zero points (5% or more of responses)**

- (24) Abstract design without meaningful title
- (37) Face(s)

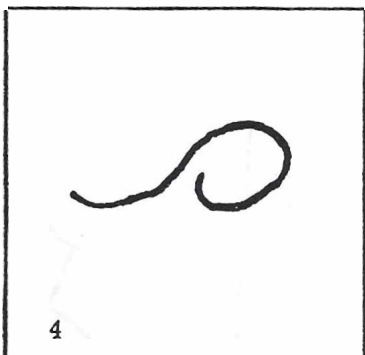
**One point (2% to 4.99%)**

- (4) Animal (face or total)
- (67) Bow and arrow
- (37) Boy (man)
- (37) Girl (woman)
- (37) Man (boy, including stick men)
- (35) Moon
- (48) Sliding board
- (53) Sound waves

**Two points (less than 2% of responses)**

Other responses showing creative strength. Look up categories in list.

**FIGURE 4**



**Zero points (5% or more of responses)**

- (24) Abstract design without meaningful title
- (4) Animal (unspecified)
- (37) Face
- (37) Man's face
- (4) Snail

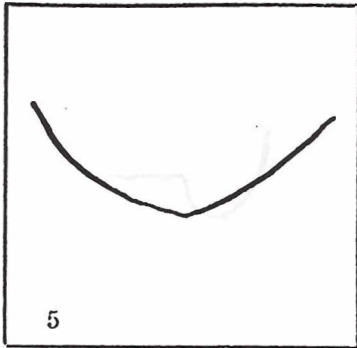
**One point (2% to 4.99%)**

- (37) Body (man)
- (4) Cat
- (8) Duck
- (27) Fish
- (37) Girl (woman)
- (10) Hair
- (37) Man
- (58) Monster (ghost, etc.)
- (10) Nose
- (4) Snake
- (33) Water (waves, pool, etc.)
- (38) Worm

**Two points (less than 2% of responses)**

Other responses requiring creative strength. Check list for categories.

**FIGURE 5**



**Zero points (5% or more of responses)**

- (24) Abstract design without meaningful title
- (9) Boat (or hull)
- (9) Boat (sail)
- (36) Bowl
- (34) Circle
- (37) Face or head

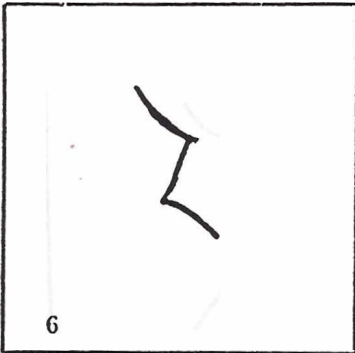
**One point (2% to 4.99%)**

- (25) Egg(s)
- (48) Hammock
- (33) Mountains
- (10) Mouth
- (10) Smile (lips)
- (33) Valley
- (33) Water (stream, pool, lake, wave, etc.)

**Two points (less than 2% of responses)**

Other responses requiring creative strength. Look up categories in list.

**FIGURE 6**



**Zero points (5% or more of responses)**

- (24) Abstract design without meaningful title
- (37) Face
- (66) Lightning
- (15) Steps (staircase)

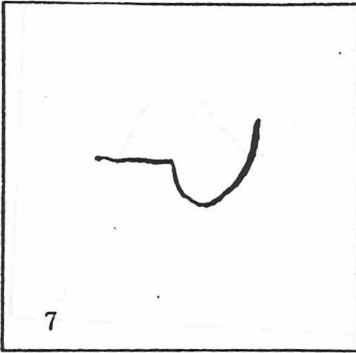
**One point (2% to 4.99%)**

- (32) Chair
- (37) Girl (woman)
- (37) Man (boy)
- (37) Man skating
- (64) Tree

**Two points (less than 2% of responses)**

Other responses requiring creative strength. Determine category from list.

**FIGURE 7**



**Zero points (5% or more of responses)**

- (24) Abstract design without meaningful title
- (18) Carriage (buggy)
- (60) Question mark(s)
- (4) Snake

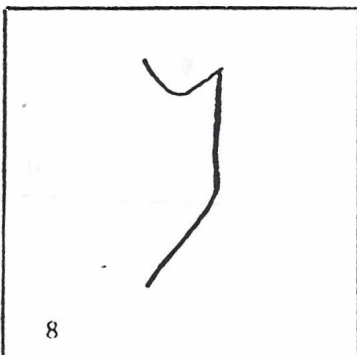
**One point (2% to 4.99%)**

- (18) Auto (car)
- (37) Body (human)
- (36) Dipper
- (37) Face
- (36) Hook
- (36) Key
- (1) Pipe (smoker's)
- (62) Sickle
- (36) Spoon, dipper
- (60) Word (letter, symbol, number)

**Two points (less than 2% of responses)**

Other responses requiring creative strength. Look up categories in list.

**FIGURE 8**



**Zero points (5% or more of responses)**

- (24) Abstract design without meaningful title
- (37) Man (head and body)
- (37) Man, men (stick)

**One point (2% to 4.99%)**

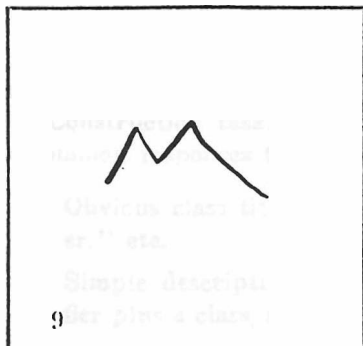
- (19) Dress
- (37) Face
- (37) Girl
- (58) Monster (ghost)
- (67) Shield (medieval, etc.)
- (64) Tree

**Two points (less than 2% of responses)**

Other responses requiring creative strength. Look up categories in list.



**FIGURE 9**



**Zero points (5% or more of responses)**

- (24) Abstract design without meaningful title
- (33) Mountain(s)
- (37) Nun
- (8) Owl
- (4) Rabbit
- (2) Rocket

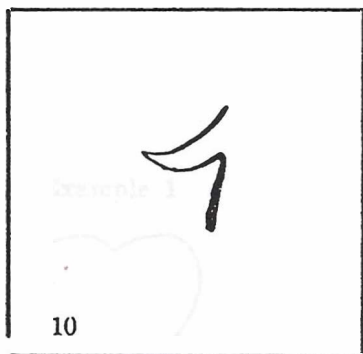
**One point (2% to 4.99%)**

- (4) Cat
- (4) Dog, dog face
- (37) Face
- (37) Man
- (33) Volcano
- (60) Word (number, symbol, letters)

**Two points (less than 2% of responses)**

Other responses requiring creative strength. Check list for categories.

**FIGURE 10**



**Zero points (5% or more of responses)**

- (24) Abstract design without meaningful title
- (4) Anteater
- (8) Duck
- (37) Face (human)
- (37) Face (mouth and nose only)
- (64) Tree(s)

**One point (2% to 4.99%)**

- (3) Angel
- (8) Bird
- (4) Dog
- (37) Figure (human)
- (37) Girl
- (10) Nose (part of face)
- (8) Woody Woodpecker

**Two points (less than 2% of responses)**

Other responses showing creative strength. Look up categories in list.

**Title Originality (Optional. May be counted as part of Verbal Score  
—See Norms-Technical Manual)**

The originality and cleverness of each title is scored according to the criteria outlined for scoring this aspect of performance on the Picture Construction task. The following examples of title for some of the common responses to Figure 1 will illustrate the scoring scheme:

- 0 Obvious class titles, such as "Bird," "Man," "Cloud," "Flower," etc.
- 1 Simple descriptive titles at a concrete level, involving a modifier plus a class, such as "Flying Bird," "Dancing Man," "Pink Cloud," "Tulip." etc.
- 2 Imaginative, descriptive title in which the modifier goes beyond concrete, physical description, such as "Swallows of Capistrano," "Babyless McGraw," "A Cloud Without a Silver Lining," "An Umbrella for a Grasshopper," etc.
- 3 Abstract but appropriate title, going beyond what can be seen and telling a story, such as "The Original Wings Over the World," "King of Hearts in Loveland," "Angel's Launching Pad," "Weeping Flowers of the Valley of Sorrow," etc. X

**Elaboration**

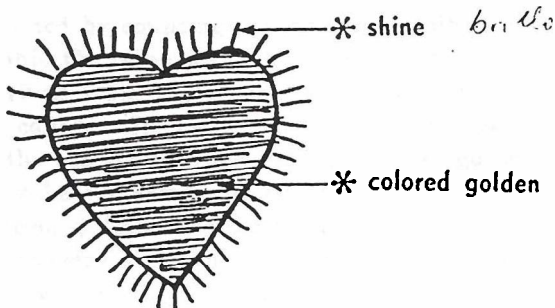
The elaboration score for Incomplete Figures is obtained in the same way as the elaboration score was obtained for Picture Construction. The following three examples of responses to Incomplete Figure 1 will illustrate the rules outlined under Picture Construction, Elaboration:

**Example 1**



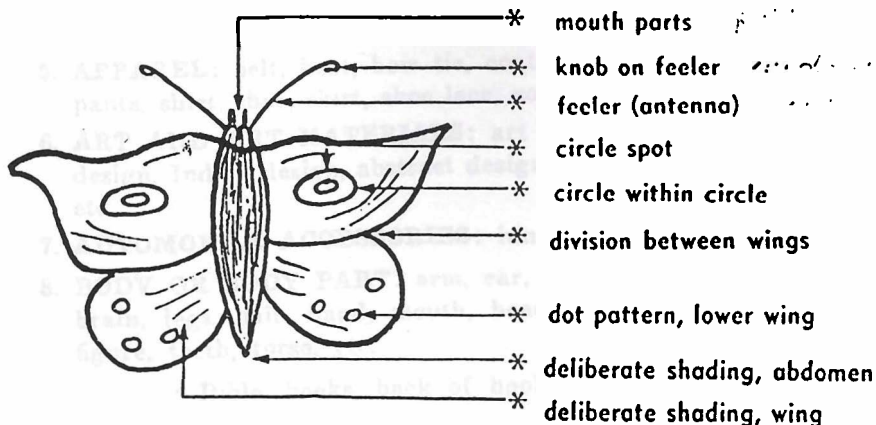
Title: Heart  
Elaboration Score: 0

**Example 2**



Title: Heart of Gold  
Elaboration Score: 3

### Example 3



Title: The Two-Eyed Butterfly

Elaboration Score: 10

### Activity 3: PARALLEL LINES

#### Fluency

Before beginning the scoring of the Parallel Lines Test, it is important that checks be made for repetitions and relevancy and that these responses be eliminated from consideration in all scoring. A relevant response is defined as one which contains or makes use in some way of the parallel lines (the stimulus element of the task). Responses which duplicate or repeat an earlier credited response are also eliminated.

The fluency score is simply the number of responses minus the number of duplications and irrelevant responses.

#### Flexibility

The flexibility score is obtained by counting the number of different categories into which the subject's responses can be classified. The following categories were derived from the responses of 500 subjects from kindergarten through college. In cases where responses cannot be classified into any of the categories listed below, new categories should be created. They may be indicated on the scoring worksheet by "X1" for the first new category, "X2" for the second new category, etc. Rarely should this be necessary since these categories cover over 99 per cent of the responses given by the 500 subjects.

1. **AIR TRAVEL:** airplane, space ship, cone of space craft, airport, helicopter.
2. **AIR WEAPON:** arrows, atom bombs, bombs, rockets, etc.
3. **ALPHABET:** All letters of the alphabet—A, B, C, D, etc. and combinations of letters, such as IT.

4. **ANIMAL OR ANIMAL PART:** antlers, bat, cat, claws, dog, dog's face, donkey, elephant, giraffe, rabbit, horse, lion, monkey, mice, octopus, porcupine, pig's face, turtle, tiger, etc.
5. **APPAREL:** belt, boot, bow tie, coat, dress, button, hat, necktie, pants, shirt, shoe, skirt, shoe lace, socks, shorts, top hat, etc.
6. **ART AND ART MATERIALS:** art set, crayon, drawing board, design, Indian design, abstract design, modern art, paint, picture, etc.
7. **AUTOMOBILE ACCESSORIES:** inner tube, wheels, horn, etc.
8. **BODY OR BODY PART:** arm, ear, eye, face, figure, feet, bone, brain, legs, hair, hand, mouth, head, nose, male figure, female figure, teeth, torso, etc.
9. **BOOKS:** Bible, books, back of book, page of book, dictionary, library, newspaper, etc.
10. **BUILDING:** bank, barn, apartment house, capitol, ancient ruins, church, cabin, bird house, dog house, Empire State Building, Rand Tower, hotel, home, hut, house, skyscraper, fire house, gas station, garage, fort, igloo, lighthouse, London Tower, motel, palace, post office, restaurant, school, temple, train station, Taj Mahal, White House, etc.
11. **BUILDING ATTACHMENTS AND ACCESSORIES:** elevator, fence, gate, key hole, latch, mailbox, outhouse, smoke stack, swinging door, steeple, water hose, windmill, well, etc.
12. **BUILDING MATERIALS OR EQUIPMENT:** bricks, lumber, pole, steam shovel, stones, etc.
13. **BUILDING PART:** ceiling, chimney, door, fireplace, floor, roof, steps, stairs, window, etc.
14. **CLOCKS AND OTHER DEVICES FOR MEASURING TIME:** Big Ben, calendar, calendar clock, hour glass, sand clock, sundial, timer, etc.
15. **CONTAINERS:** bag, barrel, basket, bottle, box, bucket, cage, can, cereal box, cup, flour bag, flower pot, fish bowl, gas tank, garbage can, fruit jar, jar, lunch box, mug, pail, purse, shoe box, tank, trash can, trunk, etc.
16. **DECORATION:** bow, bunting, Indian headdress, ribbon, etc.
17. **DRINK:** beer, coke, milk, water, etc.
18. **FISH AND FISH COLLECTIONS:** aquarium, fish, sardines, tank of fish, etc.
19. **FLOWER:** flower, tulip, etc.
20. **FOOD:** breakfast, brownie, candy, cereal, cake, cheese, carrot, cookie, egg, fudge, groceries, hot dog, ice cream, lollipop, loaf of bread, lunch, mushroom, nuts, pie, popsicle, popcorn (box of), peanut butter, pickle, sizzling bacon, snack, soda, sandwich, suckers, sundae, sugar cane, shish-kabob, etc.

21. **FOWL:** bird, chicken, duck, flamingo, etc.
22. **FRAME:** picture frame, etc.
23. **FRUIT:** banana, raisin, tray of fruit, mango, etc.
24. **FURNITURE:** bed, bureau, chair, chest of drawers, cot, crib, cupboard, desk, desk top, Navy bunks, safe, table, etc.
25. **GAMES:** checkers, crossword puzzle, dominoes, Chinese game, hop scotch, pick up sticks, tag, tick-tack-toe, etc.
26. **GEOGRAPHY:** aerial view, crater, lake, lava, lover's leap, map, mountains, pyramid, river, road map, Bering Strait, seascape, volcano, waterfall, etc.
27. **GEOMETRIC SHAPES:** cube, cylinder, diamond, magic square, rectangle, square, semi-circles, etc.
28. **HEAVENLY BODIES:** comet, solar system, stars, etc.
29. **HOUSEHOLD ITEMS** (excluding furniture): bathroom scales, brush, bowl, broom, cookie jar, coat hanger, coffee pot, fly swatter, fork, heater, kettle, knife, mat, matches, mop, needle, oven, pan, play pen, pepper shaker, pot, refrigerator, rug, saucer, salt shaker, shower curtains, shelf, stove, silverware, sink, soap, spool of thread, sprinkler, table mat, thread, teapot, tub, thermostat, utensils, vase, waste basket, washboard, etc.
30. **HUMAN BEINGS:** boy, clown, Chinese, children, cook, doctor, dancing girls, dunce, fireman, fisherman, girl, giant, Indian, Jew, lady, man, men, human figure, twins, woman, etc.
31. **INSECTS:** bee, bug, butterfly, spider, spider web, vampire, etc.
32. **LADDER:** house ladder, ladder, step ladder, etc.
33. **LEATHER GOODS:** billfold, brief case, luggage, etc.
34. **LIGHT:** candle, candlelight, lamp bulb, light, light switch, lighter, spotlight, street light, etc.
35. **LINEN:** table cloth, sheet, towel, etc.
36. **MACHINES:** camera, coke machine, cash register, computer, crane, dryer, electronic brain, mechanical man, robot, time machine, washing machine, etc.
37. **MEDICINE:** pills, etc.
38. **MONEY:** check, dollar, dollar sign, money, etc.
39. **MUSIC:** baton, bell, bugle, drum, flute, horn, harmonica, music box, musical notes, piano, phonograph, record player, treble clef, violin, cello, whistle, etc.
40. **NUMERALS:** Arabic (11, 77, 76, 99, etc.), Roman (II, IV, etc.)
41. **PACKAGE:** gift, package, parcel, present, etc.
42. **PLANTS:** cactus, grass, giant beans, hops, seeds, etc.
43. **POLE AND LINES:** clothes line, telephone poles and line, etc.

44. **PRISON**: bars, cage, hand cuffs, hideout, jail, etc.
45. **RECREATION AND ENTERTAINMENT**: exercise bars, monkey bars, movie screen, pool table, pool, ride, roller coaster, swimming pool, skin diver, show, slide, stage, strong man, swing, etc.
46. **ROAD OR ROAD SYSTEM**: bridge, crossing, highway, road, etc.
47. **ROYALTY**: king, prince, princess, queen, throne, etc.
48. **SCHOOL**: blackboard, chalkboard, homework, spelling chart, poster, etc.
49. **SCHOOL AND OFFICE SUPPLIES**: eraser, envelope, folder, glue, ink, notebook, paper, pencil, pen, pencil sharpener, ruler, tablet, etc.
50. **SCIENCE**: magnet, microscope, mercury, oscilloscope, test tube, telescope, thermometer, etc.
51. **SHELTER** (not buildings): bomb shelter, cave, fallout shelter, dugout, tepee, etc.
52. **SOUND AND SOUND SYSTEMS**: radar, radio, sonar, switchboard, sound wave, tuning fork, etc.
53. **SPACE**: spaceman, space capsule, space suit, sputnik, etc.
54. **SPORTS**: badminton, ball, bat, boxing match, catcher, diamond (baseball), drag race, field goal, 50-yard dash, goal post, gym set, high dive, high jump, pitcher, pole vault, race track, scoreboard, stadium (football), soccer goal, etc.
55. **STORAGE**: elevator, silo, etc.
56. **STREET AND STREET SYSTEMS**: alley, city block, parking lot, parking meter, sidewalk, street, uptown, Wall Street, etc.
57. **SUPERNATURAL CREATURES**: angel, elf, fairy, ghost, Martian, Moon Man, Moon Woman, Santa Claus, witch, etc.
58. **SURFACE TRAVEL**: boxcar, bicycle, car, cart, covered wagon, convertible, cable car, railroad, railroad tracks, sled, stagecoach, tire tread, trailer, train, truck, van, wagon, etc.
59. **SYMBOLS AND SIGNS**: Army emblem, cross, barber pole, crown, flag, Nazi patch, NE, question mark, sign, signal, stop signal, swastika, symbol, totem pole, etc.
60. **TELEVISION**
61. **TOBACCO**: cigarette, cigar, pipe, etc.
62. **TOOLS**: axe, hammer, pitch fork, rake, shovel, etc.
63. **TOYS**: ball, blocks, firecracker, jack-in-the-box, jig saw puzzle, pea shooter, playhouse, potato head, puppet, Pinnochio, pin wheels, stilts, tin dog, tin man, toy, etc.
64. **TREE**: all kinds including Christmas, cedar, decorative, shade, forest, log, palm tree, pine, etc.

65. **WATER TRAVEL:** boat, canoe, sail, ship, snorkel, submarine, etc.
66. **WEAPONS OR TRAPS** (not air weapons): bear trap, bullet, cannon, dynamite, gun, magazine (ammunition), pistol, shield, TNT, torpedo, etc.
67. **WEATHER AND SEASONS:** rain, snow, snow storm, sun rays, sunset, spring, umbrella, etc.
68. **WINDOWS:** blinds, curtains, draped windows, windows, etc.

### Originality

Scoring for originality is based on tabulations of the responses of 500 subjects from kindergarten through college. Responses found in 20 per cent or more of the records are given no credit. Responses occurring in from 5 to 19 per cent of the records are scored one point; those occurring in 2 to 4 per cent of the records are awarded two points. All other responses showing imagination and creative strength are awarded *three* points. Determine the flexibility category of such three-credit responses by looking them up in the category list above.

Responses scored zero, one, two and three points are listed below as a guide to obtaining the originality score for this activity. Flexibility categories are given in one column and originality weights in the second.

Response	Flex. Categ.	Orig. Wgt.	Response	Flex. Categ.	Orig. Wgt.
Abacus	49	3	Bridge	46	2
Abstract design	6	0	Broom	29	3
Airplane	1	3	Bucket (paint, water)	15	2
Apartment (building)	10	2	Bullet, shell	66	2
Arrow(s)	2	2	Butterfly	31	2
Automobile	58	2	Cabinet (cupboard)	24	3
Balloons	63	3	Cage (for animal)	15	2
Barn	10	2	Cake	20	2
Basket	15	3	Calendar	14	2
Bed(s)	24	2	Camera	36	3
Bible	9	0	Can, metal	15	1
Bird(s)	21	3	Candle(s)	34	1
Birdhouse	10	3	Candy, (peppermint)	20	2
Blackboard	48	2	Candy, bar	20	2
Block (toy)	63	3	Car, automobile	58	2
Board	12	1	Cards, playing	25	3
Boat (motor, sail, etc.)	65	1	Castle	10	3
Book	5	0	Cat	4	3
Bookshelf	24	3	Cave	51	3
Bottle	15	1	Chair(s)	24	1
Bow (tie, ribbon)	16	2	Chalkboard (black-		
Box(es)	15	0	board)	48	2
Bread, loaf	20	3	Checkerboard	25	1

Response	Flex. Categ.	Orig. Wgt.	Response	Categ. Flex.	Wgt. Orig.
Chewing gum, stick ..	20	3	Glass (drinking) ....	15	1
Chimney(ies) .....	13	2	Goalposts, football ...	54	1
Church .....	10	3	Hammer .....	62	3
City skyline, buildings	26	2	Hat .....	5	1
Clock .....	14	1	Hexagon .....	27	0
Clothesline .....	43	3	Highway .....	46	1
Coat .....	5	3	Horse .....	4	3
Columns (building) ..	13	3	Hourglass .....	14	1
Crayon(s) .....	6	2	House .....	10	0
Crayon box .....	15	2	House (tree) .....	51	3
Cross (religious) ....	59	2	Hut (no house or		
Crown (king) .....	59	3	tree house) .....	51	
Cube (square) .....	27	1	Ice cream cone .....	20	2
Cup .....	15	2	Jack-in-the-Box .....	63	2
Cylinder (geometric) .	27	3	Jail (not window) ...	44	2
Desk .....	24	2	Jar (container, jelly,		
Diving board .....	45	3	face cream, etc.) ..	15	
Dog .....	4	3	Kite (box) .....	63	3
Doghouse .....	10	3	Knife(ves) .....	29	3
Dollar bill .....	38	3	Ladder .....	32	0
Door .....	13	0	Leg(s) (man) .....	8	2
Dress .....	5	2	Letter (to person) ..	49	2
Drum .....	39	2	Letter(s) (alphabet) .	3	0
Dynamite .....	66	2	Light (lamp) .....	34	2
Egg(s) .....	20	3	Lighthouse .....	10	3
Envelope .....	49	3	Light socket		
Eye(s) .....	8	3	(receptacle) .....	29	3
Eyeglasses .....	5	3	Light switch .....	29	3
Face(s) .....	8	0	Log (tree) .....	64	3
Fence .....	11	1	Lollipop .....	20	2
Fireplace .....	13	2	Mailbox .....	11	2
<u>Firecrackers</u> .....	63	3	Man (figure or stick) .	30	0
Fish .....	18	3	Map .....	26	3
Flag(s) .....	59	1	Maze .....	25	3
Flower (tulip,			Milk carton .....	15	1
rose, etc.) .....	19	1	Mirror .....	29	3
Flowerpot .....	15	3	Monster (whole) ...	57	2
Football field .....	54	3	Mountain peaks ....	26	3
Fork (to eat with) ..	29	3	Mug (drinking) ....	15	3
Frame (picture) ....	22	0	Mushroom .....	42	3
Garbage can .....	15	2	Musical note(s) ....	39	3
Gate, fence gate ....	11	2	Number(s) (Arabic		
Geometric design ....	27	0	and Roman) .....	40	0
Gift .....	41	1			
Girl, face .....	8	0			



Response	Flex. Categ.	Orig. Wgt.	Response	Flex. Categ.	Orig. Wgt.
Outhouse	11	3	String	29	3
Pail	15	2	Suckers (lollipops)	20	2
Pants (man's)	5	1	Swimming pool	45	3
Paper, piece of, sheet, typing	49	1	Swing, swing set (play)	45	1
Pencil(s)	49	1	Table	24	1
Picture	6	1	Tank (container)	15	3
Picture frame	22	0	Telephone poles	43	2
Pocketbook (woman's)	15	2	Television	60	1
Pot (container)	15	3	Tick-tack-toe	25	1
Present	41	1	Tombstone	59	3
Prison building	44	2	Tower (to climb) (watch, water, Pisa, Eiffel)	10	3
Privy	11	3	Train track	58	2
Radio	52	3	Trash can	15	2
Railroad track	58	1	Tree(s)	64	0
Rectangle	27	0	Tree stump; trunk (not a log)	64	3
Road (street)	46	1	Truck	58	2
Robot	36	2	Umbrella(s)	5	3
Rocket	2	1	Vase (for flowers)	15	3
Room (in building)	11	3	Wagon, covered	58	3
Ruler	49	3	Wall(s)	13	3
Sack (bag)	15	2	Washing machine	36	3
School buildings	10	2	Washboard	29	3
Shirt	5	2	Wastebasket	29	2
Shoe (boot)	5	3	Weapon, collection (bow and arrow; bow and gun)	66	2
Sign, advertising	59	2	Window	68	0
Sign, traffic	59	2	Window, jail	68	1
Silo	10	2	Woman (face)	8	1
Skyscraper (building)	10	2			
Spaceship	1	2			
Spool, spindle	29	3			
Stairs, steps	13	1			
Stilts	45	2			
Stove	29	3			

### Bonus Originality Scoring

There has always been a question about scoring responses for Activity 3 on Figural Form A when the pupil combines two or more sets of parallel lines to make a single response. It has always been recognized that such responses indicate a rather high level of originality. First, such responses are relatively rare and this is one reason why no provisions have been previously established for special scoring procedures. Second, such responses definitely represent a departure from the com-

monplace and established. The test instructions and format of the booklet definitely establish a set to make a separate object from each pair of parallel lines. Combining two or more pairs is not forbidden, however, and this strategy has been deliberate. The rationale for this position is that the creative person sees possibilities that others assume have been closed out. As results have come in from pre- and post-testing where there have been intervening experiences to facilitate creative development, this combining kind of behavior has become more frequent in the post-test. A re-evaluation of this problem in the light of evidence from such studies and in light of theoretical rationale makes it quite clear that bonus points for originality should be awarded for such combining responses. The following scheme has been adopted by the author and is recommended for general use:

Combining two sets of parallel lines (as in a picket fence, neighboring houses, etc.), **TWO BONUS POINTS**

Combining three to five sets of parallel lines, **FIVE BONUS POINTS**

Combining six to ten parallel lines, **TEN BONUS POINTS**

Combining eleven to fifteen sets of parallel lines, **FIFTEEN BONUS POINTS**

Combining more than fifteen sets of parallel lines, **TWENTY BONUS POINTS**

Bonus points are added to whatever originality score the pupil has already been awarded for Activity 3 on the basis of the described procedures. This grand total then becomes his originality score for the activity.\*

Responses showing truly exceptional originality may be given additional credit but this will be rare. These are the kinds of responses that the scorer recognizes immediately as "original beyond the scope of a scoring guide."

### **Title Originality**

Experience has thus far indicated that scoring for Title Originality in this activity is not worthwhile.

### **Elaboration**

The principles for scoring elaboration for the Parallel Lines Activity are the same as those that have been stated for the Picture Construction and Picture Completion Activities. The problem is to determine the number of ideas communicated by each object, **IN ADDITION TO THE MINIMUM BASIC IDEA.** (A guide to what constitutes the minimum basic idea for a number of the more frequent drawings is found directly below.) How much of a story does the response tell? No score is allowed for titles.

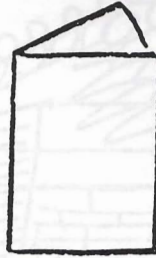
\* Researchers using this test in a pre- and post-test design must be consistent in their test-retest originality scoring. If the bonus score was not computed for the pre-test, it should not be used in the post-test score that is used for inter-test comparisons. It is also possible to rescore the pre-test, adding the bonus points, in which case the bonus point scoring should also be used in the post-test.

Responses Representing Minimum Basic Ideas

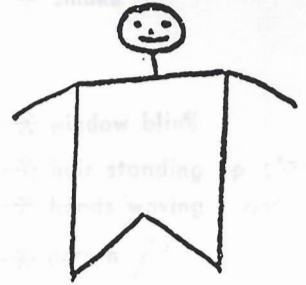


Alphabet

*Alphabet*



Book

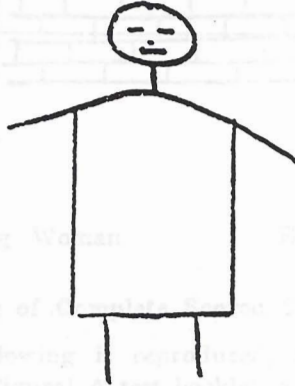


Boy



Face, Human

*Human*

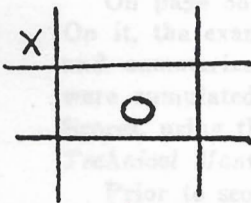


Figure, Human

*Fig. Human*

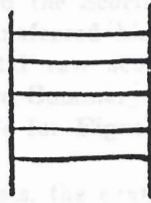


Girl



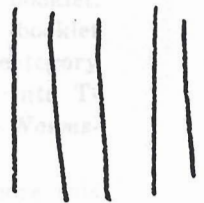
Game of Tic-tac-toe

*Game of Tic-tac-toe*



Ladder

*Escalera*

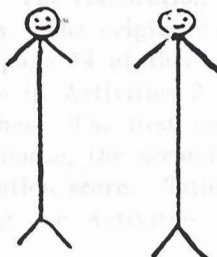


Lines

*Lines*



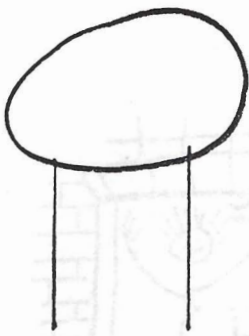
Man



Men, Stick



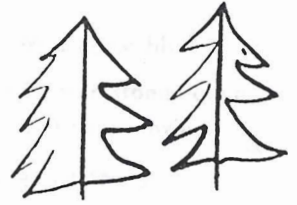
Missile



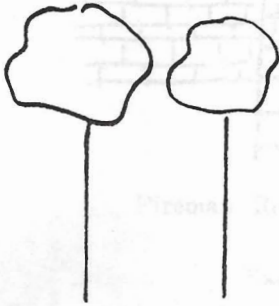
Tree  
*akal*



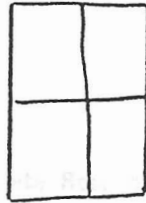
Tree  
*akal*



Trees  
*akal*



Trees  
*akal*



Window  
*akal*



Woman  
*akal*

The following are additional scoring illustrations for the Parallel Lines Activity:

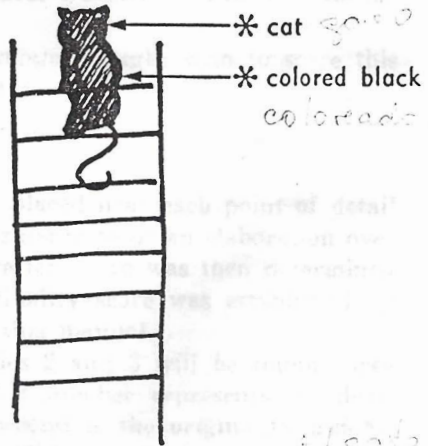
Example 1



Ladder  
*akal*

Elaboration Score: 0

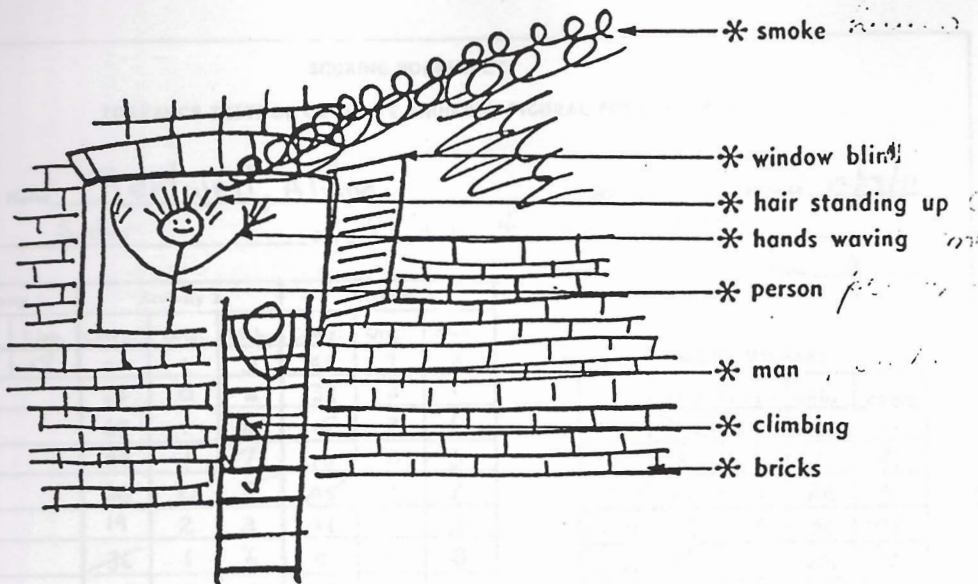
Example 2



Cat on Ladder  
*akal*

Elaboration Score: 2

### Example 3



Fireman Rescuing Woman

Elaboration Score: 8

### Example of Complete Scored Test Booklet

On the pages following is reproduced, for the guidance of examiners, a complete Figural A test booklet, as done by a fourth grade girl. Scoring marks and tabulations, as annotated by the examiner, have been left on the booklet "as-is".

On page 38 is reproduced the Scoring Worksheet for this booklet. On it, the examiner has transferred his annotations from the booklet and summarized them. Total raw scores for each scoring category were cumulated in the Score Summary box and transformed into T-Scores, using the norms table for Figural Booklet A from the *Norms-Technical Manual*.

Prior to scoring other tests, the examiner might wish to score this example, first covering the scoring notes.

### Scoring Annotations

On Activity 1, an asterisk has been placed near each point of detail in the drawing which the examiner considered to be an elaboration over the basic drawing, a bird. The elaboration score was then determined by cumulating these points. The originality score was established by reference to the guide on page 14 of this manual.

Following each response in Activities 2 and 3 will be found three numbers separated by dashes. The first number represents the flexibility *category* for the response, the second is the originality *weight*, and the third is the elaboration score. Titles given the drawings were used in elaboration scoring for Activities 1 and 2 but not for any other scoring.



SCORING WORKSHEET

TORRANCE TESTS OF CREATIVE THINKING, FIGURAL FORMS A and B

Pupil's Name Bentwell, Alvina Sex F Test Date 10/13/71  
 School Suder Age 9 Grade 4 Scorer Leo

Form A

Resp. No.	Activity 1		Activity 2			Activity 3		
	Orig.	Elab.	Categ.	Orig.	Elab.	Categ.	Orig.	Elab.
1	3	18	21	1	3	45	3	3
2			64	0	6	39	3	1
3			67	1	5	15	3	1
4			33	1	7	10	0	3
5			36	0	5	45	1	2
6			19	2	3	41	1	2
7			<del>36</del>	1	6	9	0	3
8			37	0	3	68	0	2
9			4	1	5	52	3	3
10						49	1	3
11						58	3	6
12						<del>10</del>	3	5
13						51	3	2
14						<del>10</del>	2	5
15								
16								
17								
18								
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21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

SCORE SUMMARY

	FLU	FLEX	ORIG	ELAB
Act. 1	<del>X</del>	<del>X</del>	3	18
Act. 2	9	8	7	43
Act. 3	14	11	26	41
TOTAL	23	19	36	102
T SCORE	48	55	63	70

COMMENTS:

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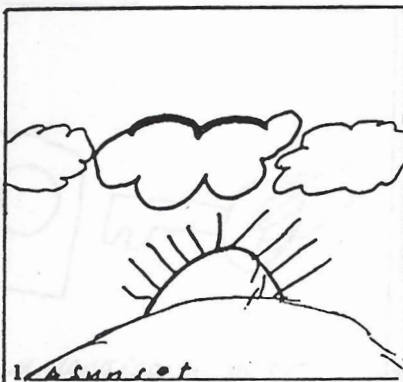
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Printed in the U.S.A.

## Activity 2. PICTURE COMPLETION

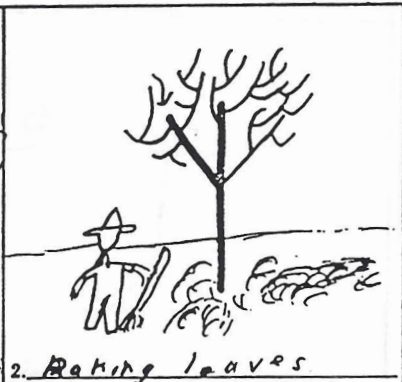
By adding lines to the incomplete figures on this and the next page, you can sketch some interesting objects or pictures. Again, try to think of some picture or object that no one else will think of. Try to make it tell as complete and as interesting a story as you can by adding to and building up your first idea. Make up an interesting title for each of your drawings and write it at the bottom of each block next to the number of the figure.

21-1-3



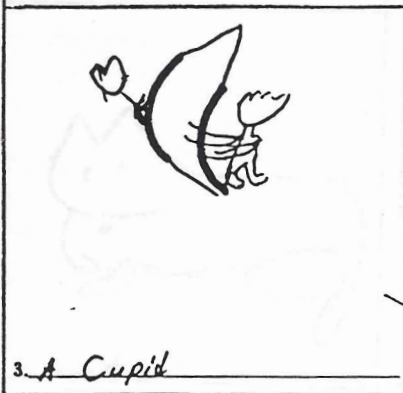
1. A sunset

64-0-6



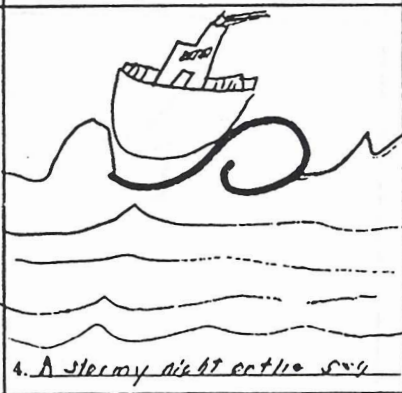
2. Raking leaves

67-1-5



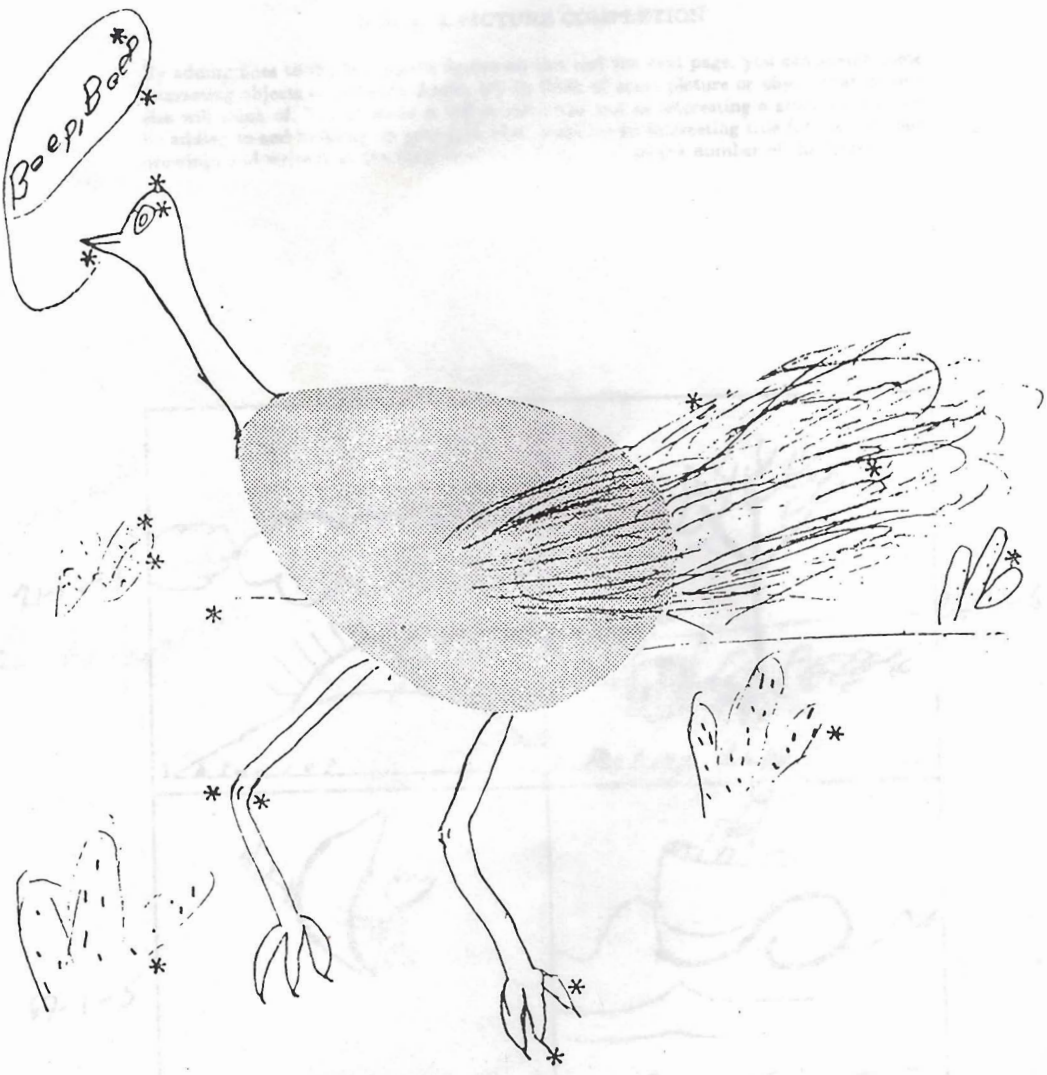
3. A Cupid

33-1-7



4. A stormy night on the sea

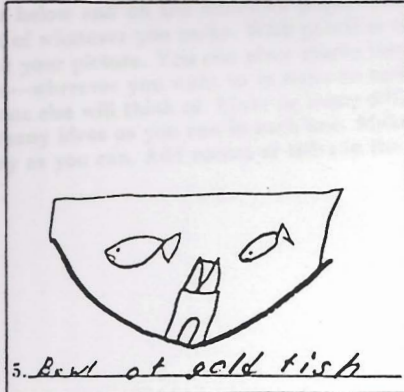
Activity 1. PICTURE CONSTRUCTION



YOUR TITLE The Desert Road Runner



36-0-5



5. Bowl of gold fish

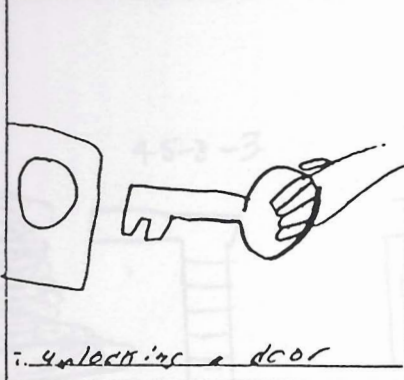
4



19-2-3

6. Old Lady, that Filled in a seat

36-1-6



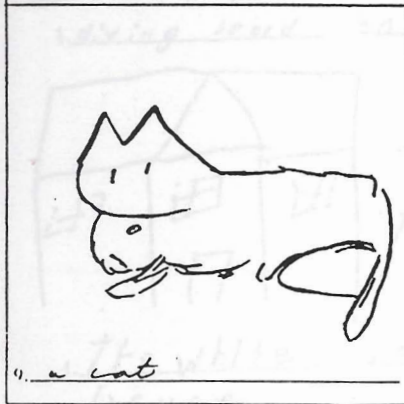
7. Unlocking a door



37-0-3

8. Reaching for the shelves

4-1-5



9. a cat

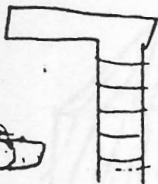
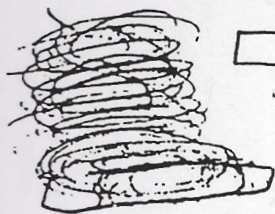


10.

### Activity 3. LINES

In ten minutes see how many objects or pictures you can make from the pairs of straight lines below and on the next two pages. The pairs of straight lines should be the main part of whatever you make. With pencil or crayon add lines to the pairs of lines to complete your picture. You can place marks between the lines, on the lines, and outside the lines—wherever you want to in order to make your picture. Try to think of things that no one else will think of. Make as many different pictures or objects as you can and put as many ideas as you can in each one. Make them tell as complete and as interesting a story as you can. Add names or titles in the spaces provided.

45-3-3



1. diving board

39-3-1



2. a piano

15-1-1



3. a candle



4. the white house

10-0-3



5. a swing set

45-1-2



6. a little girl's gift

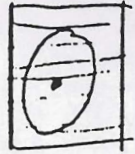
41-1-2



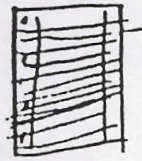
7. a book  
9-0-3



8. a window  
68-0-2



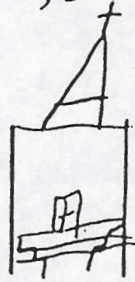
9. an eye  
52-3-3



10. a street of paper  
49-1-3



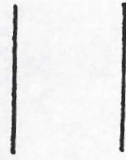
11. a bus  
58-3-6



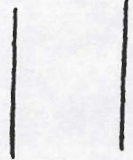
12. a church  
10-3-5



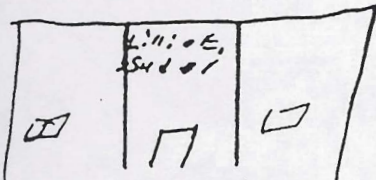
13. a circus  
51-3-2



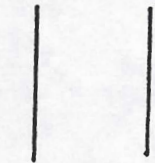
14. \_\_\_\_\_



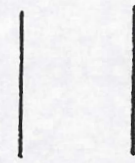
15. \_\_\_\_\_



16. a school  
10-2-5



17. \_\_\_\_\_



18. \_\_\_\_\_

GO ON TO NEXT PAGE