

1954

# Exercises for developing visual discrimination at a pre-reading level

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1954

Boston University  
School of Education

Service Paper

Exercises for Developing Visual Discrimination  
at a Pre-reading Level

Submitted by

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1945

In Partial Fulfillment of Requirements  
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1954

Boston University  
School of Education  
Library

Approved by

First Reader Llew Rhir Sullivan

Second Reader B. Alice Crossley

### Acknowledgments

The author expresses sincere appreciation to Dr. Helen Blair Sullivan for her encouragement and guidance.

The author takes pleasure in acknowledging her gratitude to her mother for cheerful inspiration.

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CHAPTER I  
INTRODUCTION

Statement of Purpose:

The purpose of this paper is to present visual discrimination material which the author created to supplement reading readiness workbooks supplied by the school. The exercises are intended to provide additional practice in visual activities for children in kindergarten or first grade who need to develop more skill in visual discrimination before they read.

The paper proposes:

To show a type of visual material which the classroom teacher can create for the individual needs of her group.

Justification:

In order to provide for the individual needs of her group, the teacher should supplement school reading readiness materials with her own teacher-made materials. Then when a child is weak in a certain ability, she can give him specific work in the area which will develop the needed skill.

This material has been created for use at a pre-reading level and provides practice in discrimination with pictures which are easier to distinguish than words. The author feels that this is a type of material which will aid in developing more efficiency in visual discrimination.



CHAPTER II  
RESEARCH

When a six year old begins to read, he must be able to recognize printed words.

"The ability to see likenesses and differences in shapes is fundamental in laying the foundation for word recognition."<sup>1/</sup>

According to Harrison,<sup>2/</sup> "ability to see likenesses and differences is dependent upon mental maturity, but it is true that it may be developed to the full capacity of the individual by definite training in accurate and precise observation before the reading process makes its special demand upon the ability in the remembering of word forms."

Some children need much more practice than others in discrimination between objects and pictures before they are ready to distinguish word forms. Dolch <sup>3/</sup> points out that development of perception for word forms is the last step in a long process of development, and those children who cannot discriminate words which the teacher has taught repeatedly may be perceptually immature and in need of more training with things which are easier to identify than words.

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<sup>1/</sup> Smith, Nila B. Teachers Guide for Beginning Reading Experiences Silver Burdett Company, New York, 1945 p.34

<sup>2/</sup> Harrison, M. Lucille Reading Readiness Houghton Mifflin Company, Boston, Massachusetts, 1937 p.9

<sup>3/</sup> Dolch, Edward W. Teaching Primary Reading The Garrand Press Company, Champaign, Illinois, 1941 p.65

Betts <sup>1/</sup>believes "visual discrimination can be developed through systematic guidance based on individual needs." He suggests that children who are weak in visual discrimination get needed practice with materials which are developed by the teacher to supplement reading readiness workbook exercises.

McKee's <sup>2/</sup>opinion that some children's power to distinguish between different objects by their forms is not sufficiently developed when they start school leads him to say, "providing sensible training which will develop the child's powers of visual discrimination to the point where he can distinguish readily between the forms of words is an essential part of helping him to acquire readiness for beginning reading."

Adams, Gray, and Reese <sup>3/</sup>state: "A child who cannot quickly distinguish differences or likenesses in objects and pictures will get nowhere when it comes to recognizing different words on the printed page."

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<sup>1/</sup>Betts, Emmett A. Foundations of Reading Instruction American Book Company, New York, 1946 p.352

<sup>2/</sup>McKee, Paul The Teaching of Reading in the Elementary School Houghton Mifflin Company, Boston, Massachusetts, 1948 p.146

<sup>3/</sup>Adams, Fay; Gray, Lillian; Reese, Dora Teaching Children to Read The Ronald Press, New York, 1949 p.129

Groups of children given visual discrimination training showed statistically significant superiority to control groups in the learning rate of new words and in reading achievement in studies by Junkins <sup>1/</sup> and Murphy.<sup>2/</sup>

An analysis of twelve standardized reading readiness tests by Jellison <sup>3/</sup> to discover what factors were measured in each test showed that the area of visual perception was the factor with the most items.

Murphy <sup>4/</sup> says that visual discrimination may be improved by presenting carefully graded exercises.

<sup>1/</sup> Junkins, Kathryn M. The Construction and Evaluation of Exercises for Developing Visual Discrimination in Beginning Reading Master's Thesis, Boston University School of Education, Boston, Massachusetts, 1940

<sup>2/</sup> Murphy, Helen A. An Evaluation of the Effect of Specific Training in Auditory and Visual Discrimination on Beginning Reading Doctor's Thesis, Boston University School of Education, Boston, Massachusetts, 1943

<sup>3/</sup> Jellison, June L. An Analysis of Twelve Standardized Reading Readiness Tests Unpublished Master's Thesis, Boston University School of Education, Boston, Massachusetts, 1948

<sup>4/</sup> Murphy, Helen A. "Insuring Success in Beginning Reading" National Educational Association Journal October 1946, pp.382-387

CHAPTER III  
DESCRIPTION AND PRESENTATION  
OF MATERIAL

### Outline of Material

The visual material is divided into seven units. The first six units contain original pictures, and the seventh unit consists of geometric forms. Each of the six picture units consists of five lessons, and each lesson is composed of four exercises. The seventh unit contains ten lessons of geometric forms. The material begins with pictures and shapes which are easy to discriminate because of great differences in size, shape, or detail, and gradually the pictures become similar.

It is suggested that each child have a copy of the lesson, a marker, and a crayon. The teacher should give the instructions and supervise a correct response from each child for the first exercise in each lesson.

#### Unit 1. Five Lessons (a through e)

Each exercise in these lessons consists of four pictures; three identical, and one entirely different. The teacher tells the children to look at all of the pictures in the first row. Markers should be used to cover the other rows. Then she tells them to each draw a line under the picture that is different. She checks each child's response to be sure he understands, and then he may proceed to complete the lesson by himself.

Unit 2. Five Lessons (a through e)

Each exercise in these lessons consists of four pictures; three identical, and one different kind but similar shape. The instructions are the same as for Unit 1.

Unit 3. Five Lessons (a through e)

Each exercise in these lessons consists of four pictures; three identical, and one same kind but different in shape and detail. The instructions are the same.

Unit 4. Five Lessons (a through e)

Each exercise in lessons a and b consists of four pictures; three identical, and one different in size only. Instructions are the same.

Each exercise in lessons c through e consists of four pictures of identical objects and only two are exactly alike in size. The teacher tells the children to look at all of the pictures in the first row. Then she tells them to find two pictures which are exactly the same size and to draw a line under each of the exactly alike pictures. She checks each child's response to be sure he understands, and then he may proceed to complete the lesson by himself.

Unit 5. Five Lessons (a through e)

Each exercise in lessons a and b consists of five similar pictures; four identical, and one different in detail. The children find the one that is different.

Each exercise in lessons c through e consists of five similar pictures; three identical, and two different in detail. The teacher tells the children to look carefully at the first picture in the box in the first row and draw a line under it. Then she tells them to look at all of the other pictures in the row and find pictures that are just the same as the first picture in the box, and draw a line under each of them.

Unit 6. Five Lessons (a through e)

Each exercise in lessons a and b consists of five identical pictures; one different in position only. The children find the one that is different.

Each exercise in lessons c through e consists of five identical pictures; three in the same position, and two in a different position. The instructions are the same as for Unit 5, lessons c - e.



Unit 7. Ten Lessons (a through j)

Each exercise in lessons a through h consists of four geometric forms; one different in shape, position, or detail. The teacher tells the children to look carefully at all of the pictures in the first row and draw a line under the one that is different.

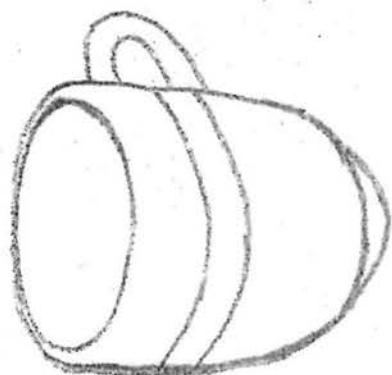
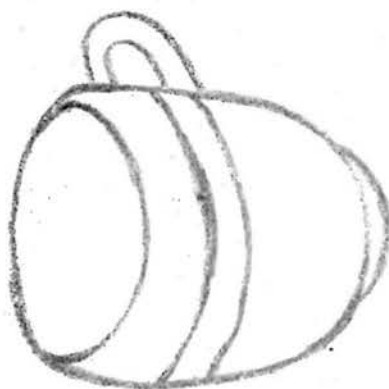
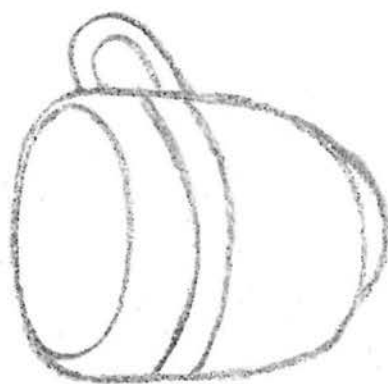
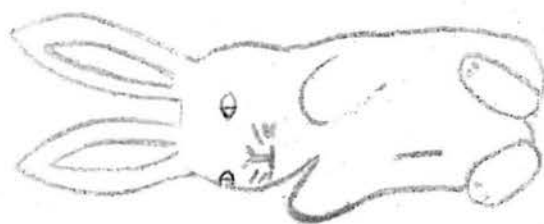
Each exercise in lessons i and j consists of five line forms; three identical and two different. The teacher tells the children to look carefully at the first picture in the box in the first row and draw a line under it. Then she tells them to look at all of the other pictures in the row and find pictures that are just the same as the first picture in the box, and draw a line under each of them.

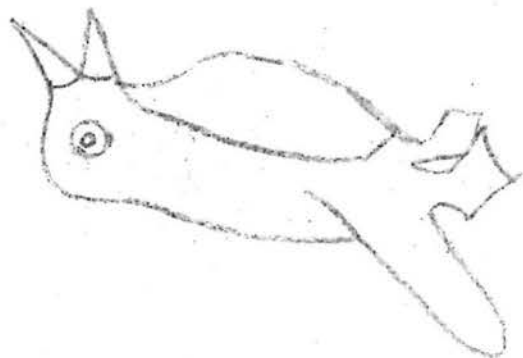
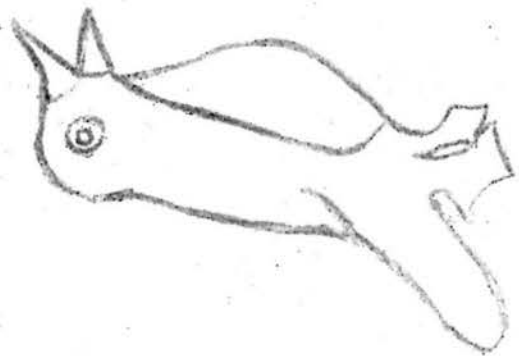
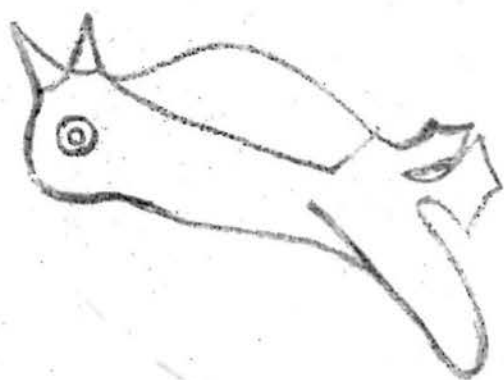
Two matching games with directions appear at the end.

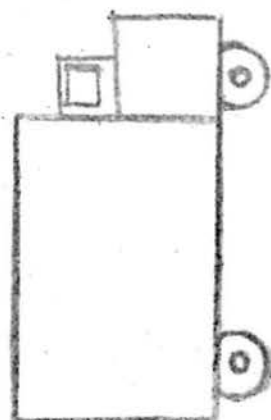
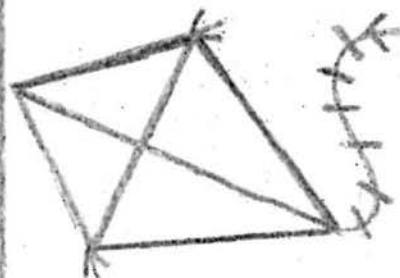
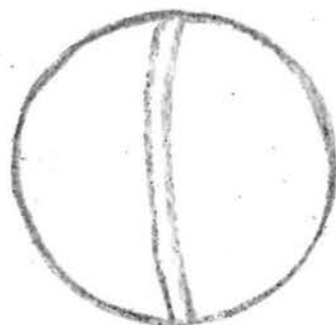
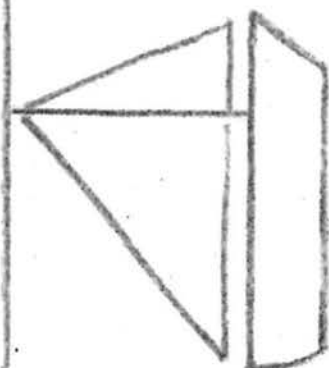
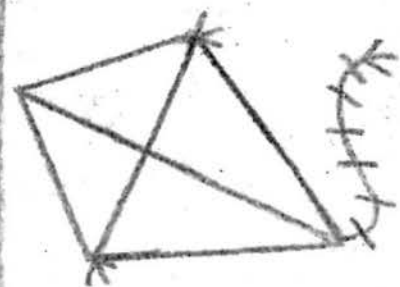
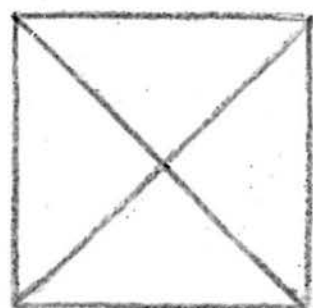
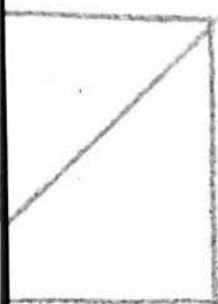
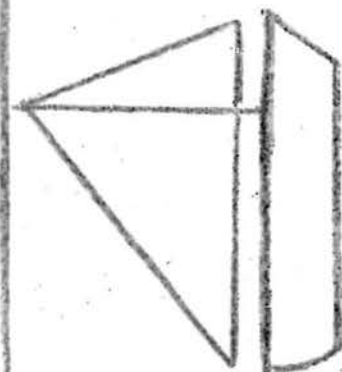
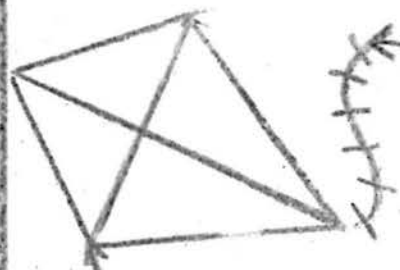
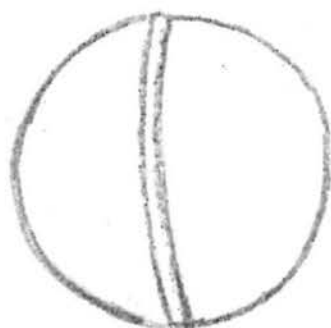
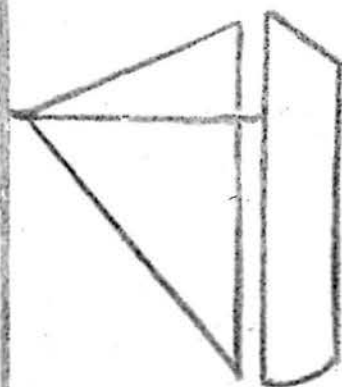
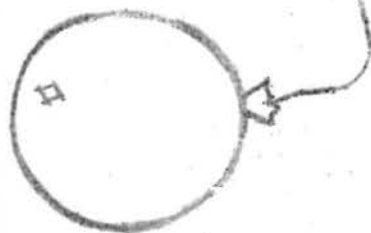
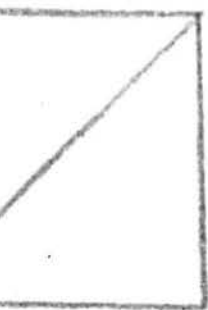
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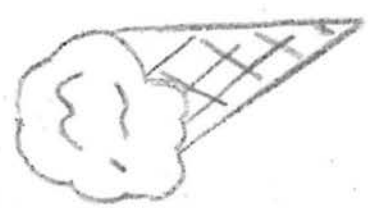
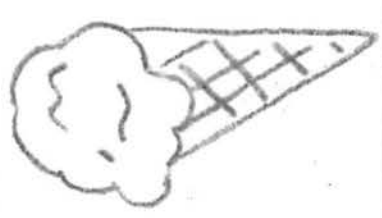
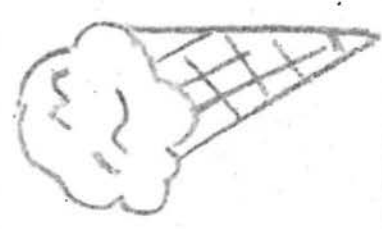
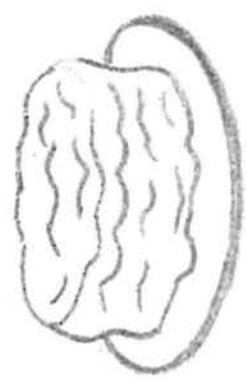
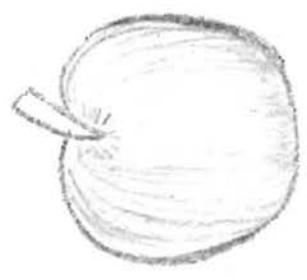
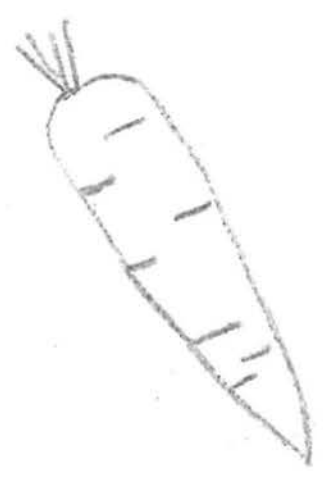
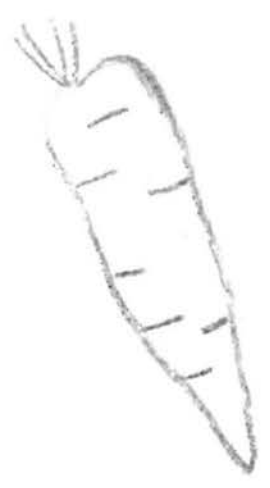
The teacher should supply each child with a copy of the lesson, a marker, and a crayon. Then she should give the oral directions and supervise a correct response from each child for the first exercise in each lesson.

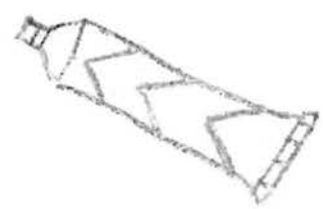
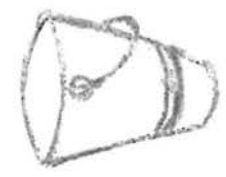
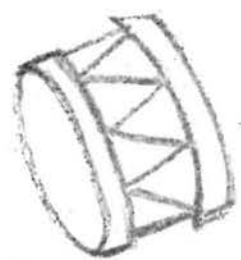
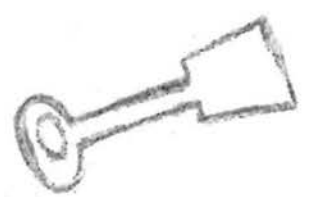
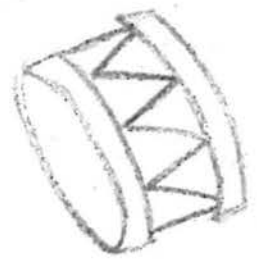
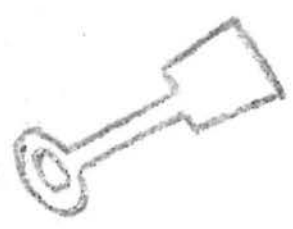
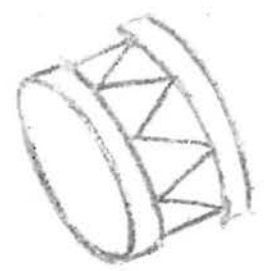
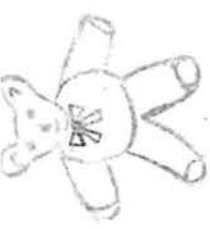
The teacher tells the children to put their markers under the first row of pictures. (demonstrate) Then she tells them to look at all of the pictures in the row. She tells them to each draw a line under the picture that is different. She checks each child's response to be sure he understands, and then he may proceed to complete the lesson by himself.

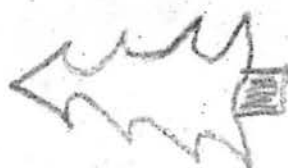
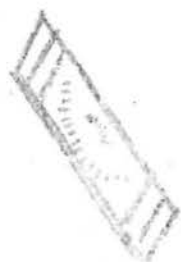
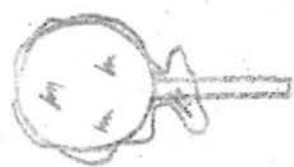










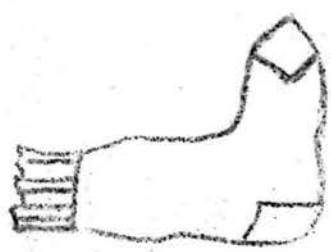
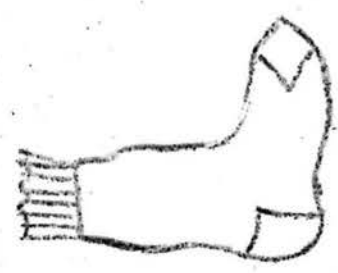
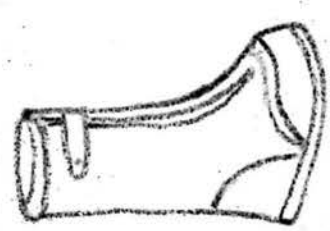
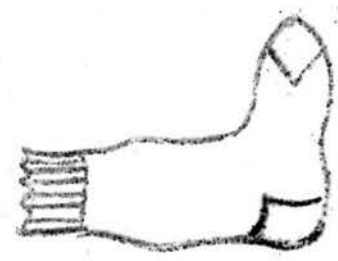


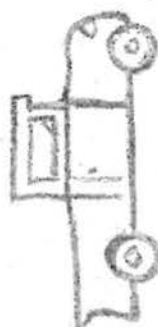
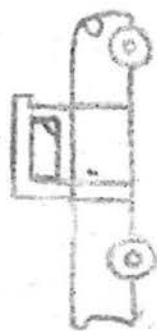
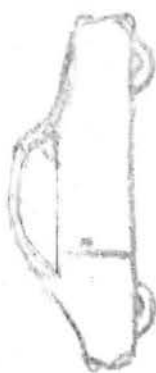
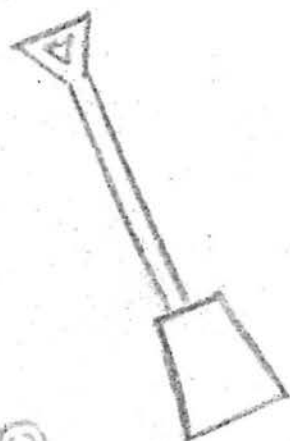
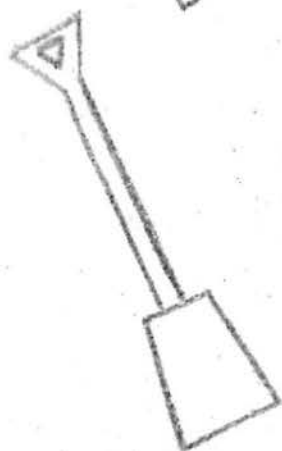
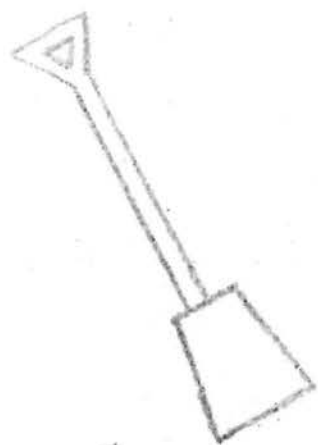


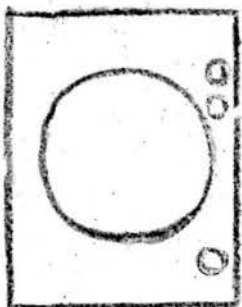
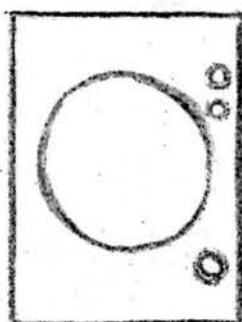
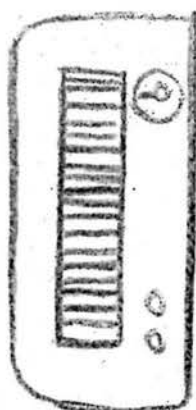
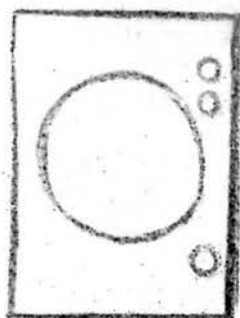
Directions for Unit 2 - (Lessons a - e)

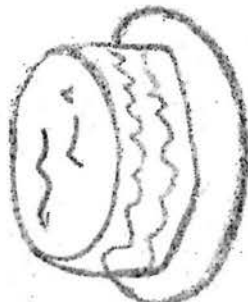
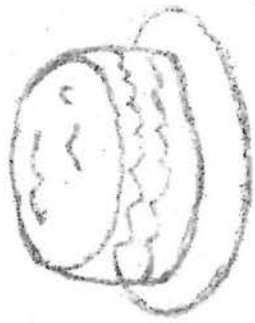
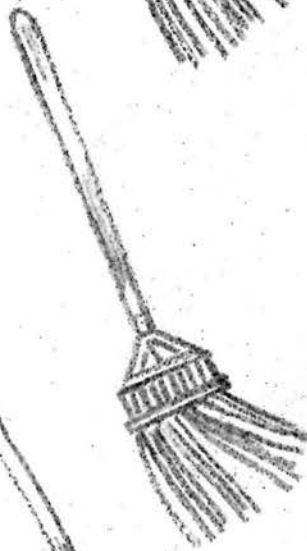
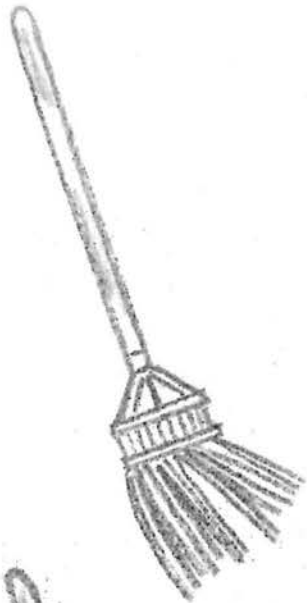
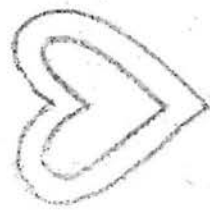
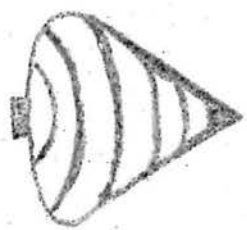
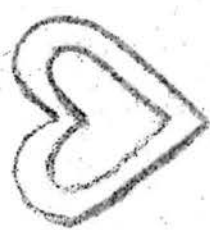
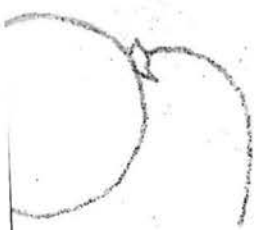
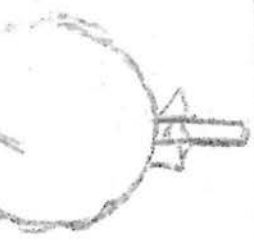
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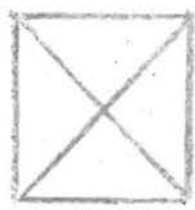
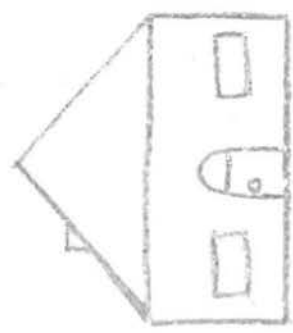
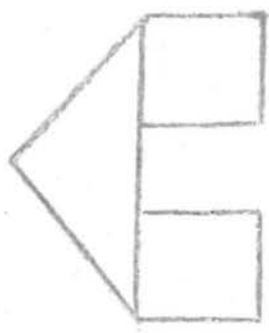
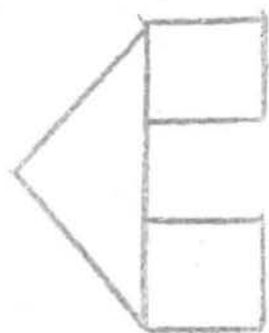
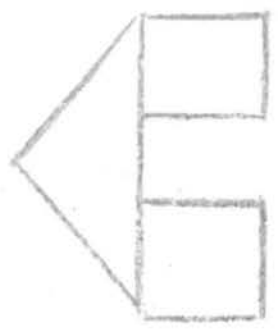
The teacher tells the children to put their markers under the first row of pictures. (demonstrate) Then she tells them to look at all of the pictures in the row. She tells them to each draw a line under the picture that is different. She checks each child's response to be sure he understands, and then he may proceed to complete the lesson by himself.







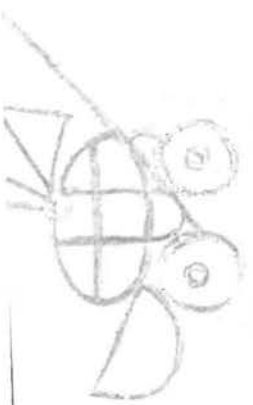
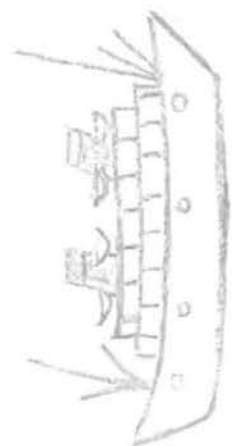
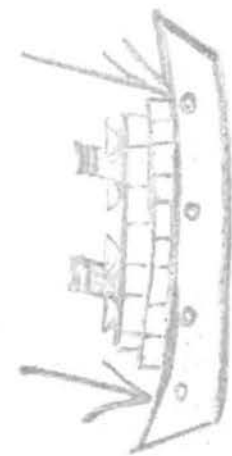
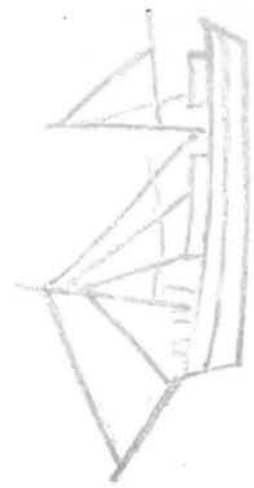
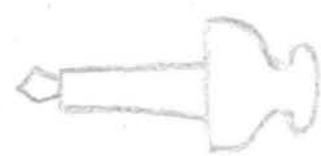
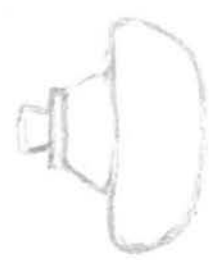




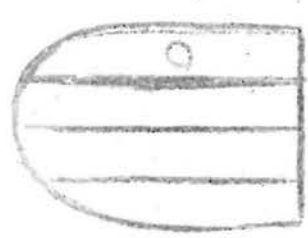
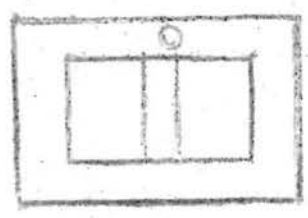
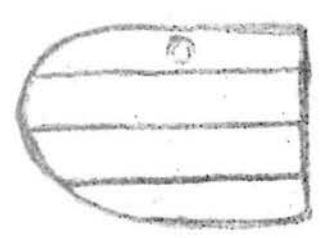
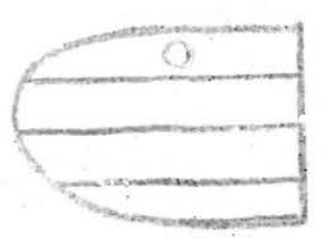
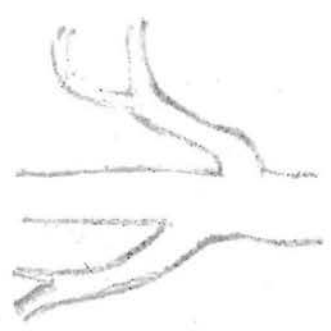
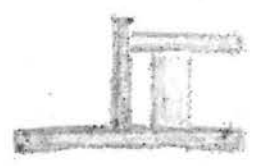
Directions for Unit 3 - (Lessons a - e)

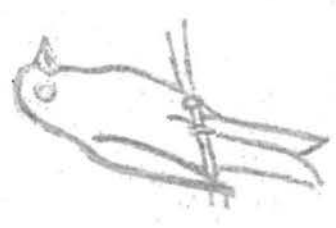
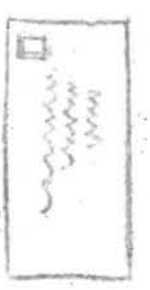
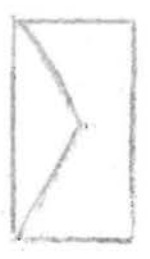
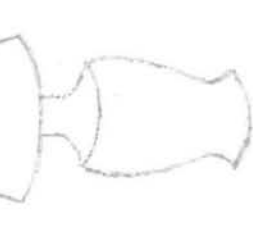
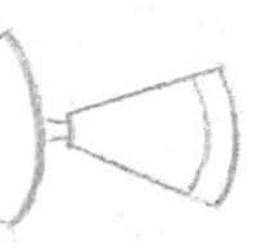
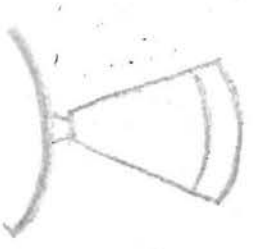
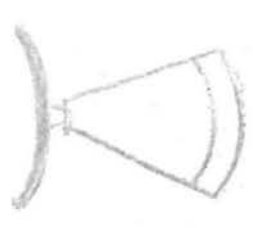
The teacher should supply each child with a copy of the lesson, a marker, and a crayon. Then she should give the oral directions and supervise a correct response from each child for the first exercise in each lesson.

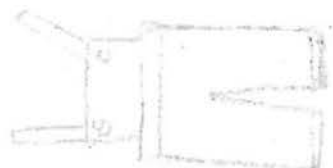
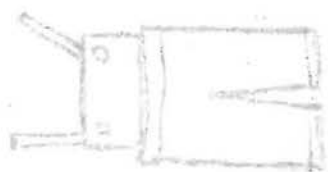
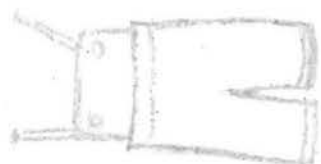
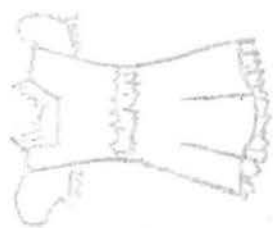
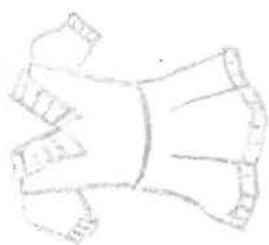
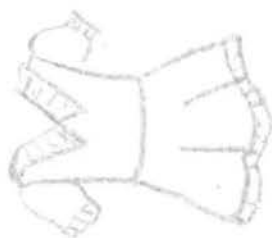
The teacher tells the children to put their markers under the first row of pictures. (demonstrate) Then she tells them to look at all of the pictures in the row. She tells them to each draw a line under the picture that is different. She checks each child's response to be sure he understands, and then he may proceed to complete the lesson by himself.

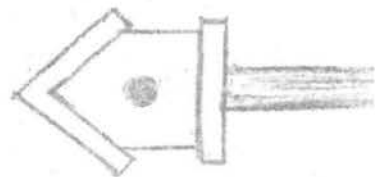
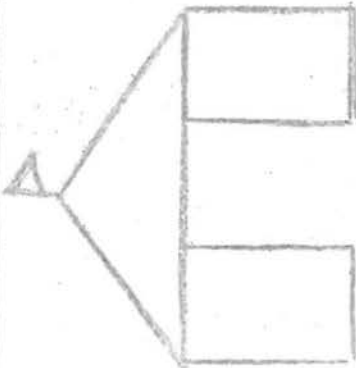
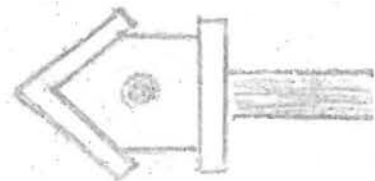
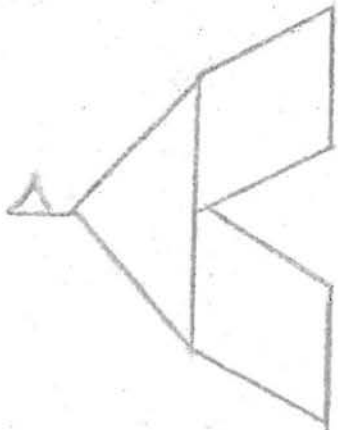
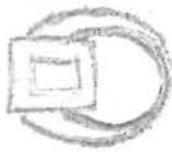
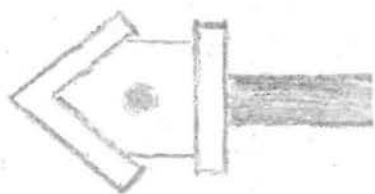
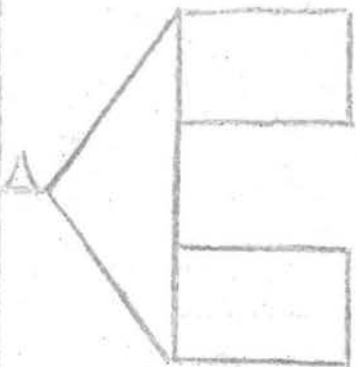
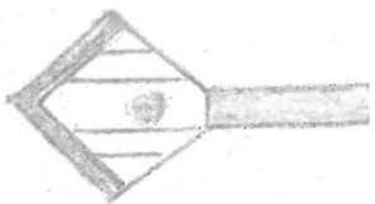
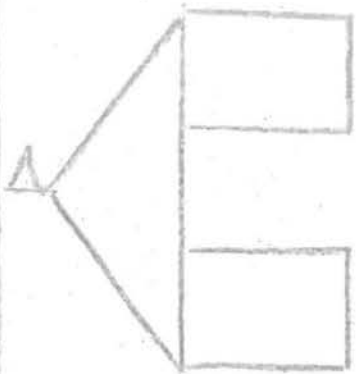
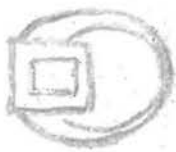










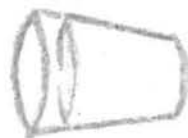
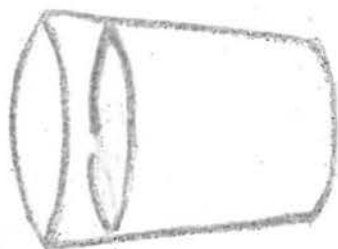


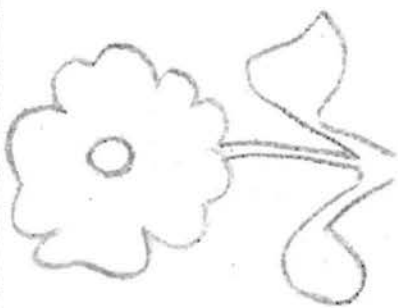
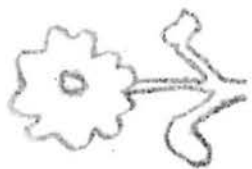
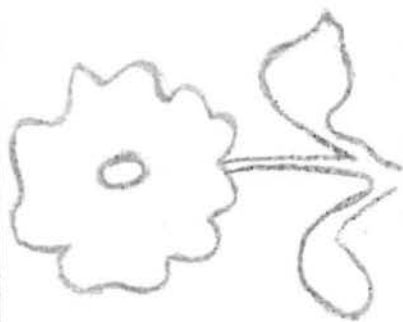
Directions for Unit 4 - (Lessons a - e)

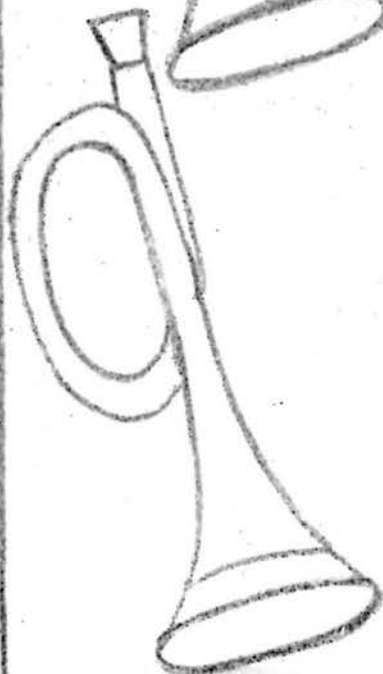
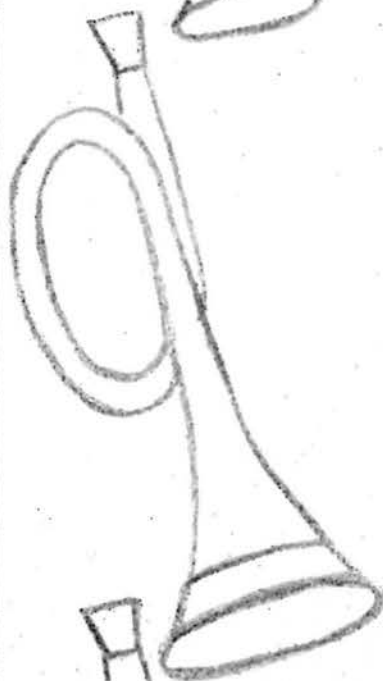
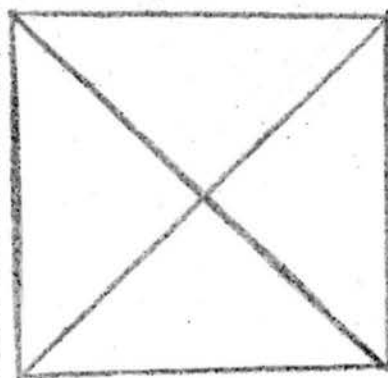
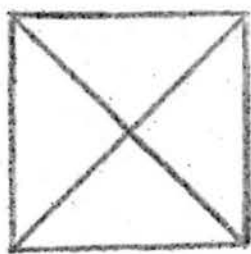
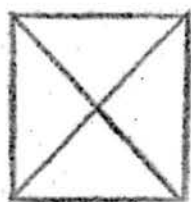
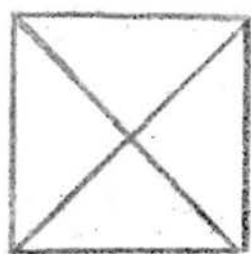
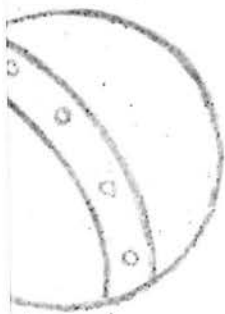
The teacher should supply each child with a copy of the lesson, a marker, and a crayon. Then she should give the oral directions and supervise a correct response from each child for the first exercise in each lesson.

For lessons a and b the teacher tells the children to put their markers under the first row of pictures. (demonstrate) Then she tells them to look at all of the pictures in the row. She tells them to each draw a line under the picture that is different. She checks each child's response to be sure he understands, and then he may proceed to complete the lesson by himself.

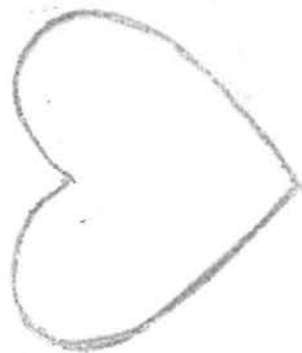
For lessons c through e the teacher tells the children to look at all of the pictures in the first row. Then she tells them to find two pictures which are just the same size and to draw a line under each of the exactly alike pictures. She checks each child's response to be sure he understands, and then he may proceed to complete the lesson by himself.

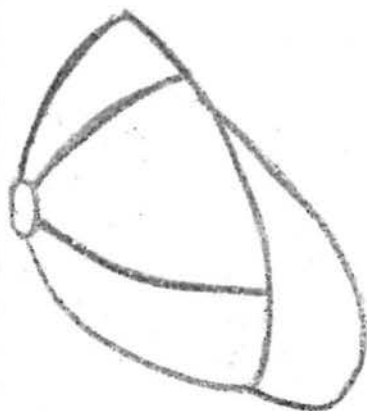
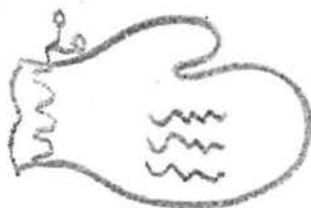










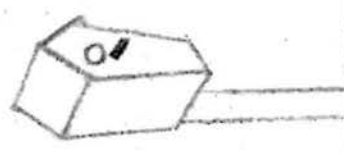
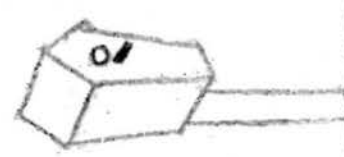
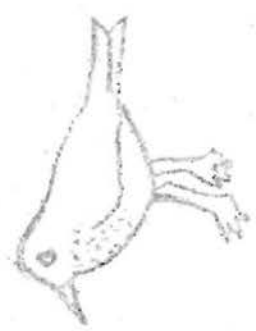
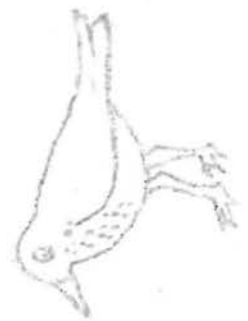
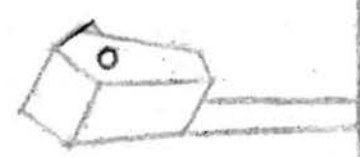


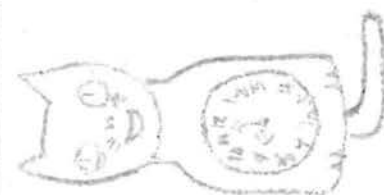
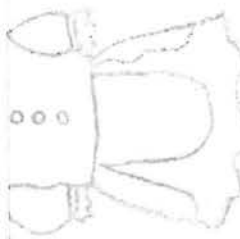
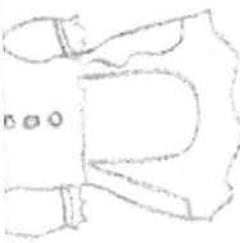
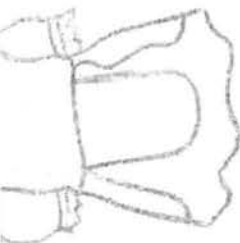
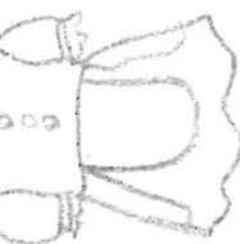
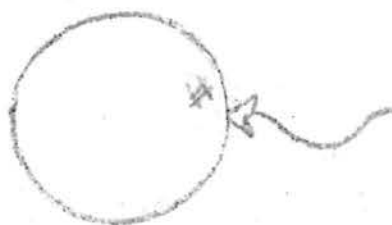
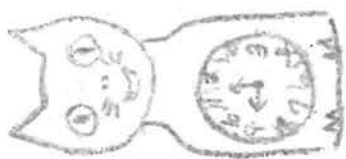
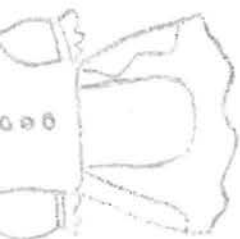
Directions for Unit 5 - (Lessons a - e)

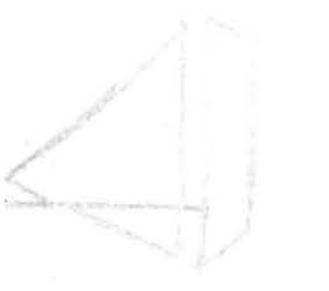
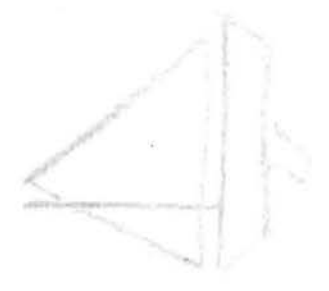
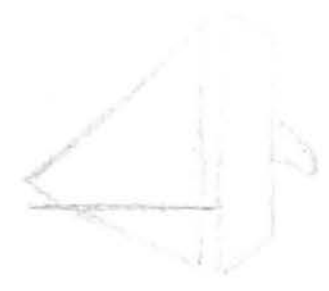
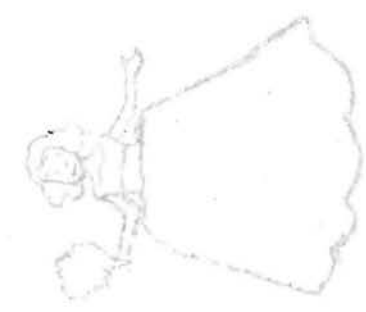
The teacher should supply each child with a copy of the lesson, a marker, and a crayon. Then she should give the oral directions and supervise a correct response from each child for the first exercise in each lesson.

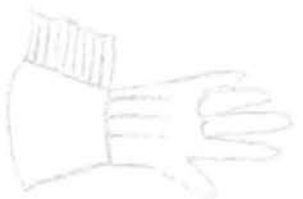
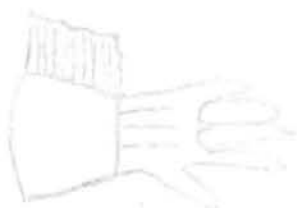
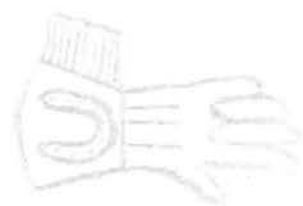
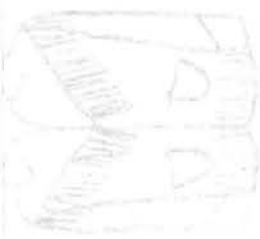
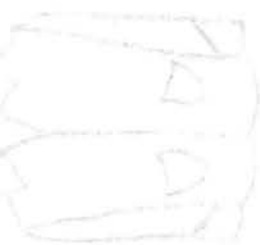
For lessons a and b the teacher tells the children to put their markers under the first row of pictures. (demonstrate) Then she tells them to look at all of the pictures in the row. She tells them to each draw a line under the picture that is different. She checks each child's response to be sure he understands, and then he may proceed to complete the lesson by himself.

For lessons c through e the teacher tells the children to put their markers under the first row of pictures. Then she tells them to look carefully at the first picture in the box and draw a line under it. She then tells them to look at all of the other pictures in the row and find pictures that are just the same as the first picture in the box, and draw a line under each of them. She checks each child's response to be sure he understands, and then he may proceed to complete the lesson by himself.









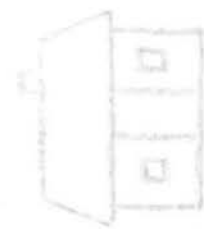
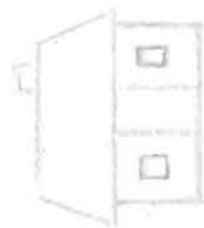
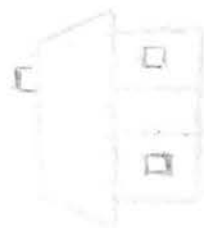
A

A

B

A

B





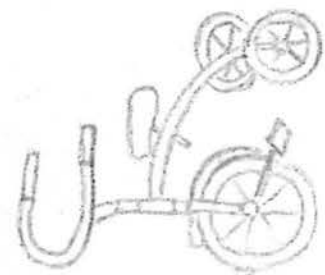
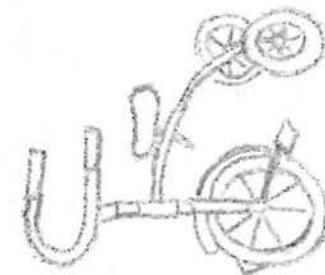
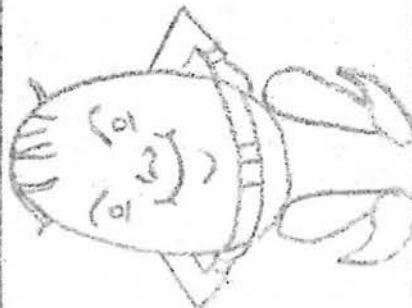
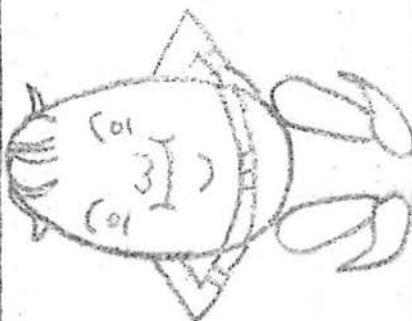
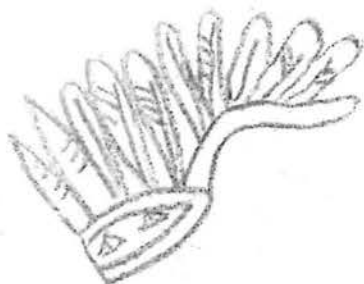
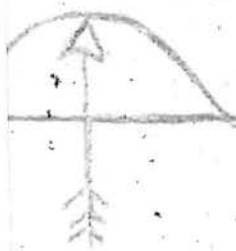
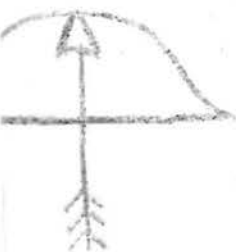
Directions for Unit 6 - (Lessons a - e)

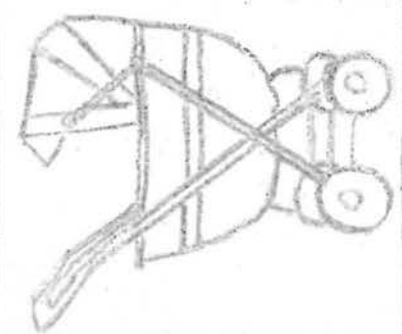
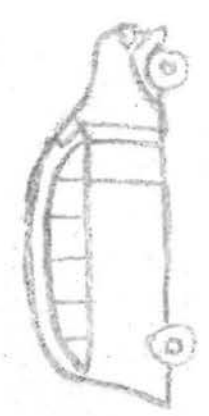
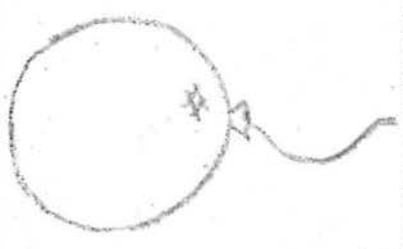
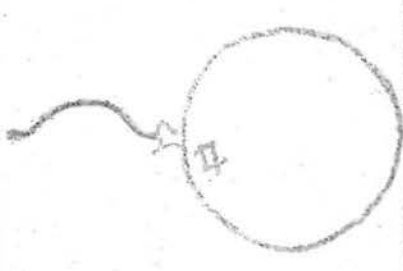
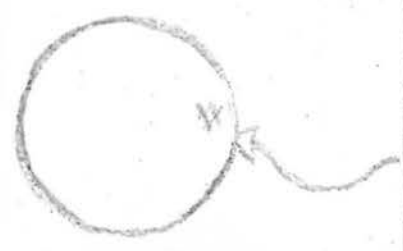
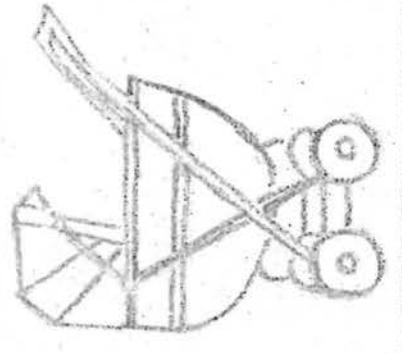
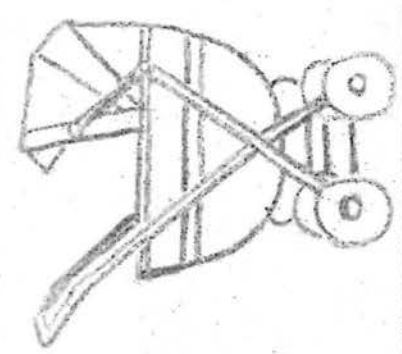
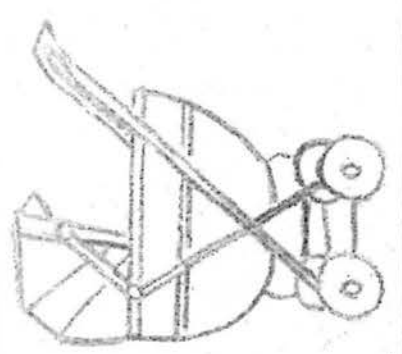
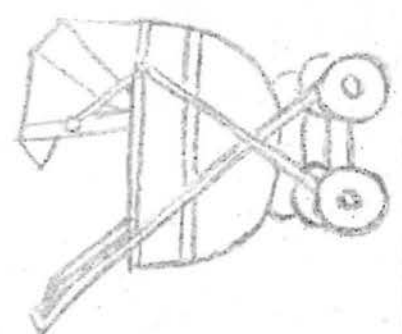
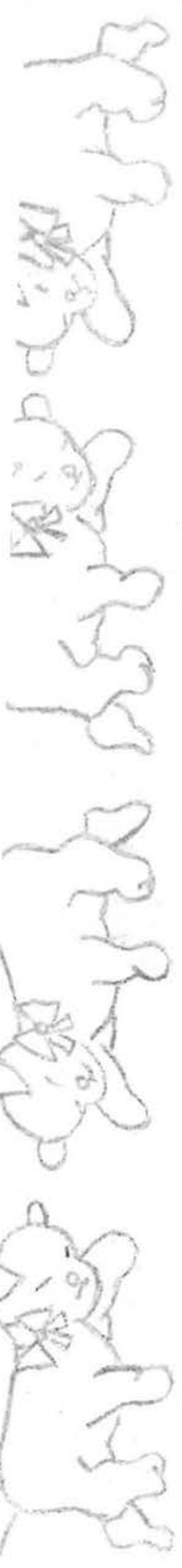
The teacher should supply each child with a copy of the lesson, a marker, and a crayon. Then she should give the oral directions and supervise a correct response from each child for the first exercise in each lesson.

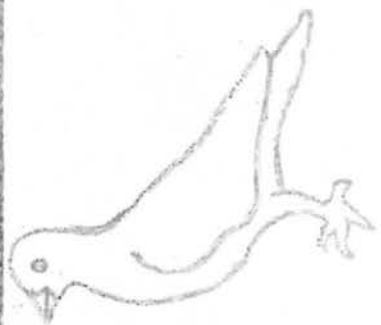
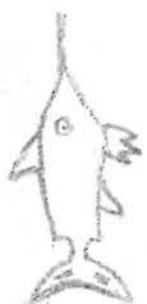
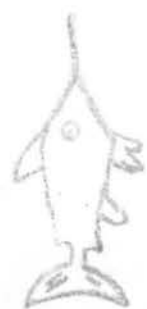
For lessons a and b the teacher tells the children to put their markers under the first row of pictures. (demonstrate) Then she tells them to look at all of the pictures in the row. She tells them to each draw a line under the picture that is different. She checks each child's response to be sure he understands, and then he may proceed to complete the lesson by himself.

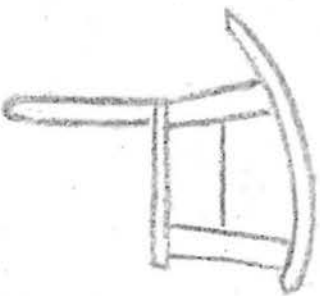
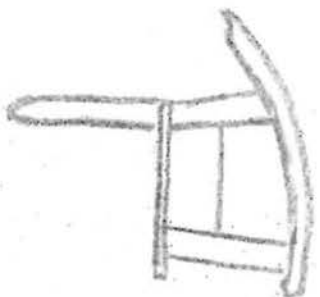
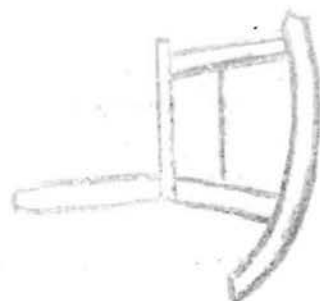
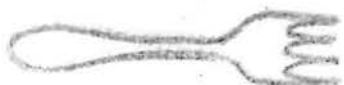
For lessons c through e the teacher tells the children to put their markers under the first row of pictures. Then she tells them to look carefully at the picture in the box and draw a line under it. She then tells them to look at all of the other pictures in the row and find pictures that are just the same as the first picture in the box, and draw a line under each of them. She checks each child's response to be sure he understands, and then he may proceed to complete the lesson by himself.









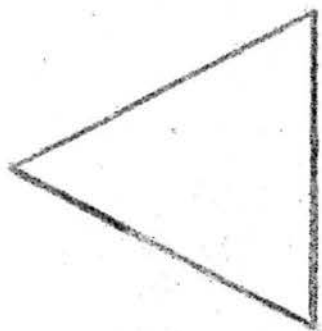


Directions for Unit 7 - (Lessons a - j)

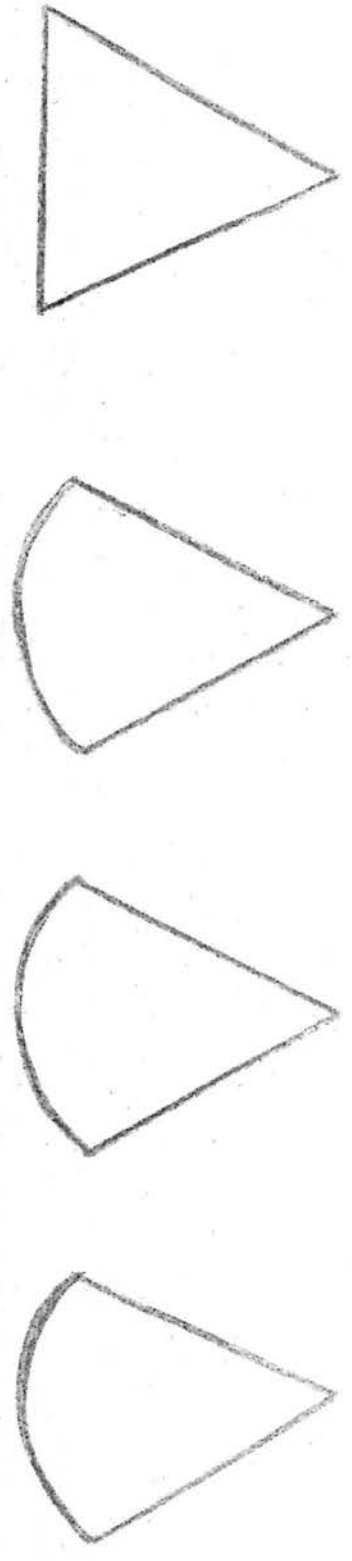
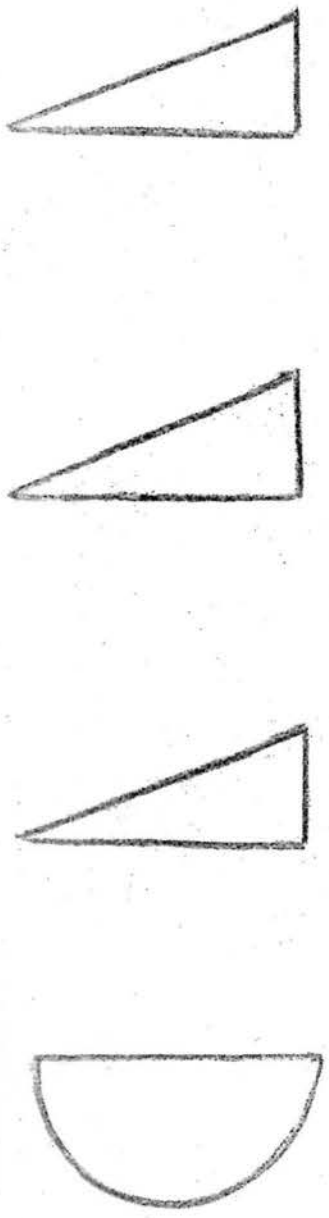
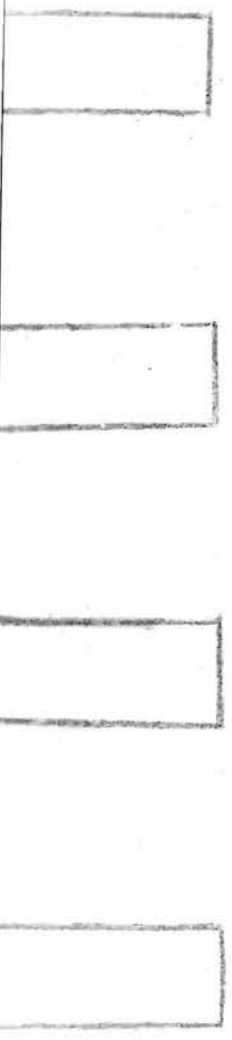
The teacher should supply each child with a copy of the lesson, a marker, and a crayon. Then she should give the oral directions and supervise a correct response from each child for the first exercise in each lesson.

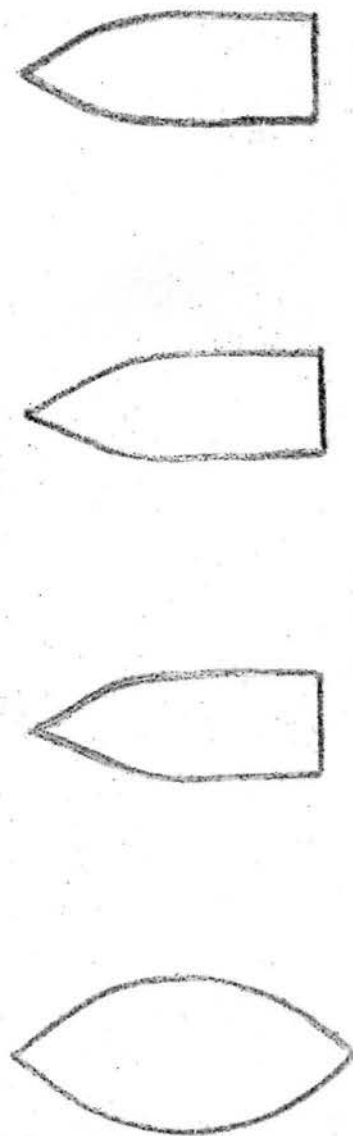
For lessons a through h the teacher tells the children to put their markers under the first row of pictures. (demonstrate) Then she tells them to look at all of the pictures in the row. She tells them to each draw a line under the picture that is different. She checks each child's response to be sure he understands, and then he may proceed to complete the lesson by himself.

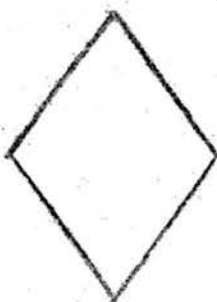
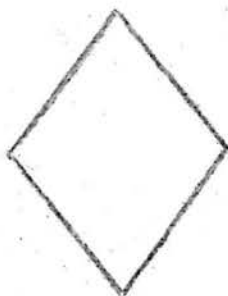
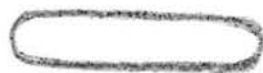
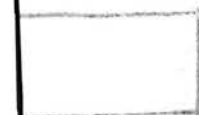
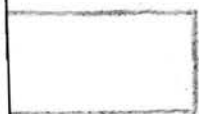
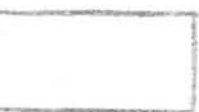
For lessons i and j the teacher tells the children to put their markers under the first row of pictures. Then she tells them to look carefully at the first picture in the box and draw a line under it. She then tells them to look at all of the other pictures in the row and find pictures that are just the same as the first picture in the box, and draw a line under each of them. She checks each child's response to be sure he understands, and then he may proceed to complete the lesson by himself.

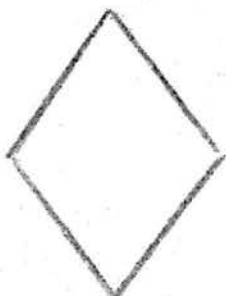
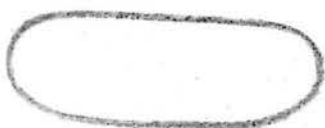
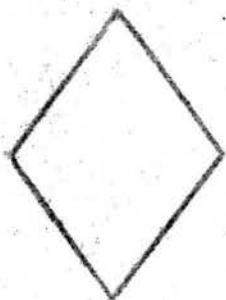
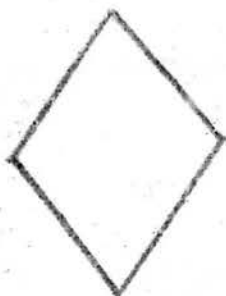


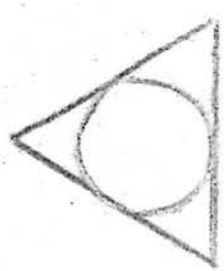
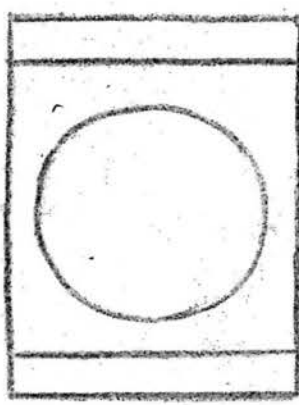
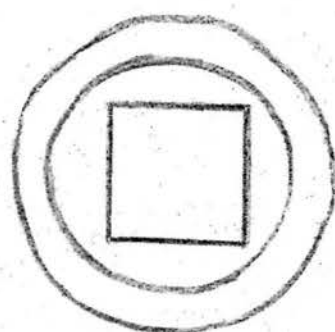
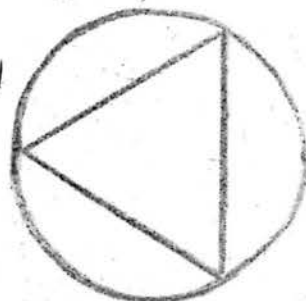
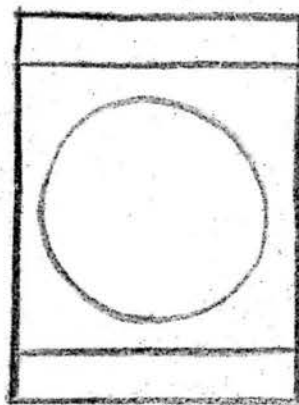
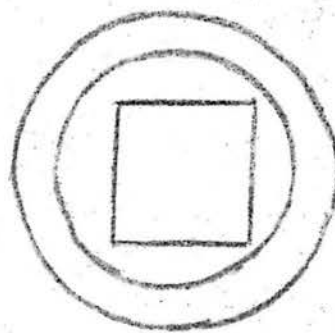
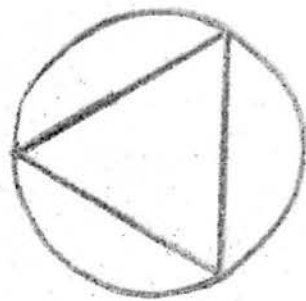
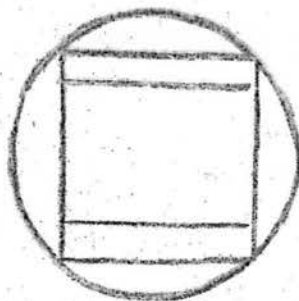
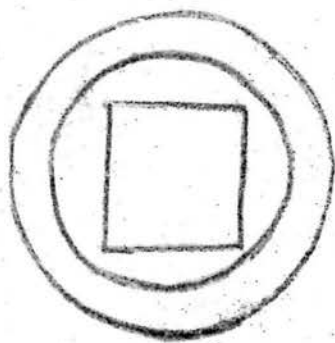
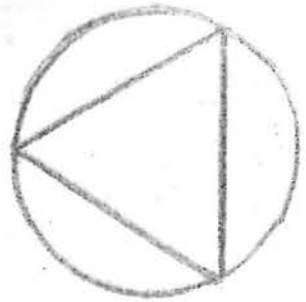
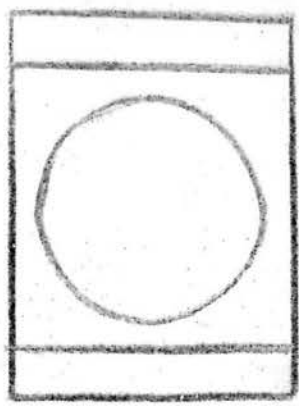
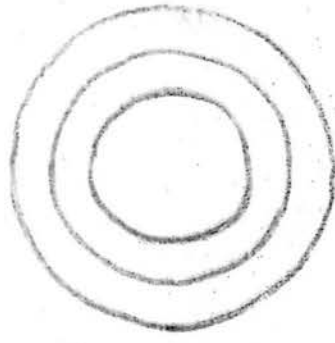


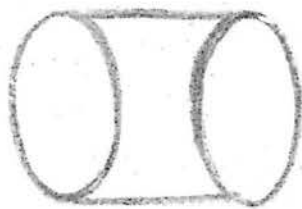
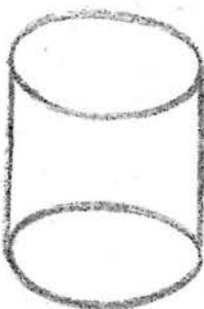
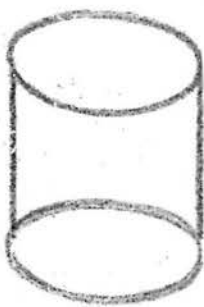
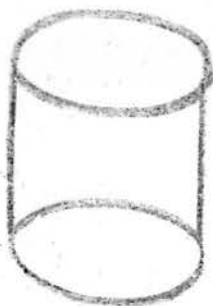
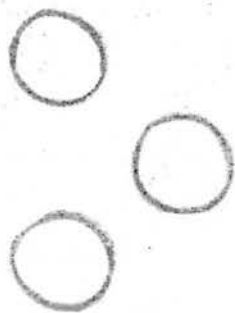
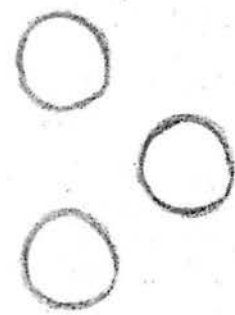
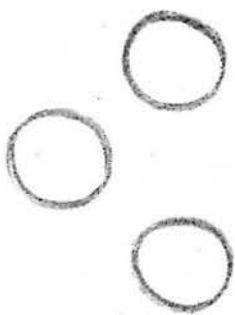
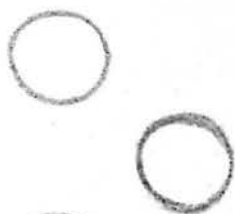


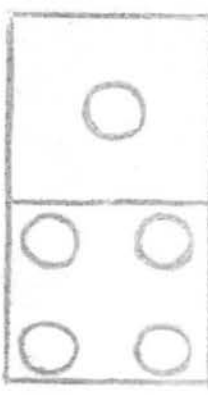
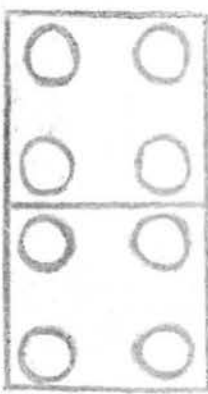
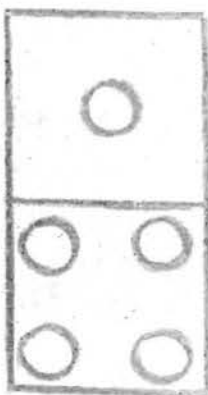
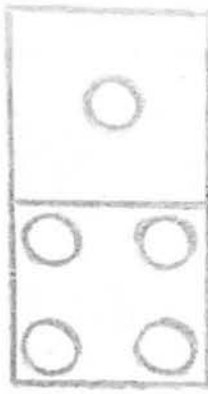
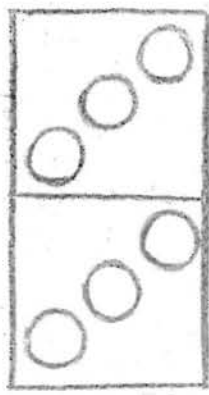
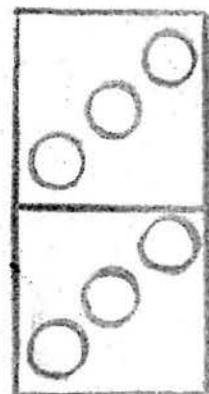
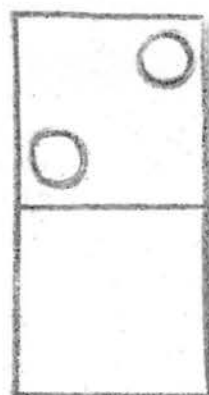
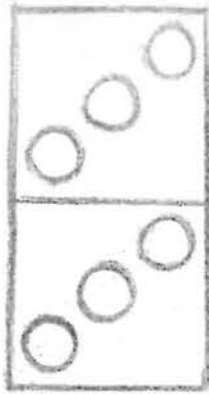
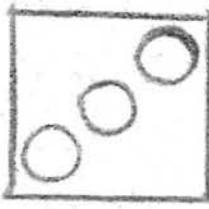
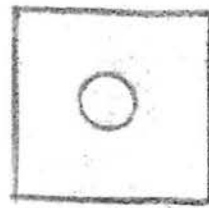
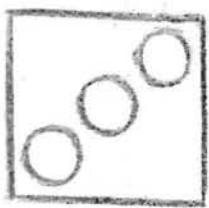
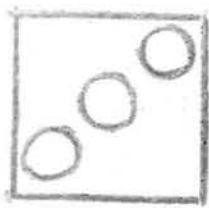
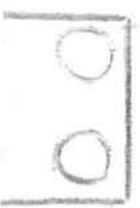












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Find the Bones (Matching Game)

(Read or tell this story about the following picture.)

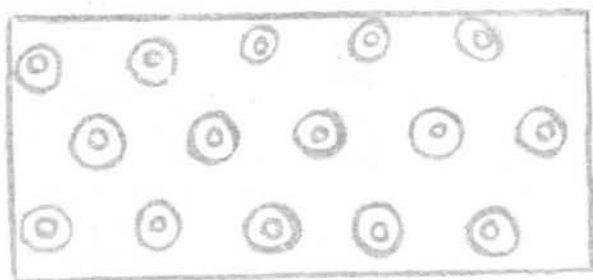
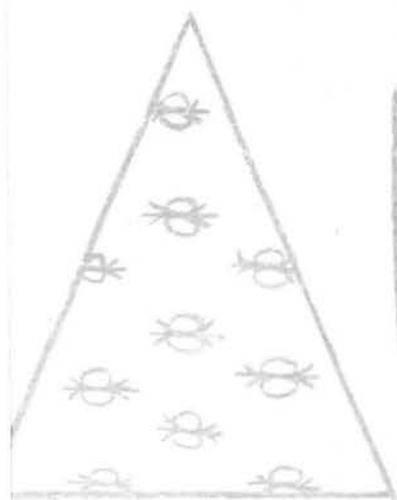
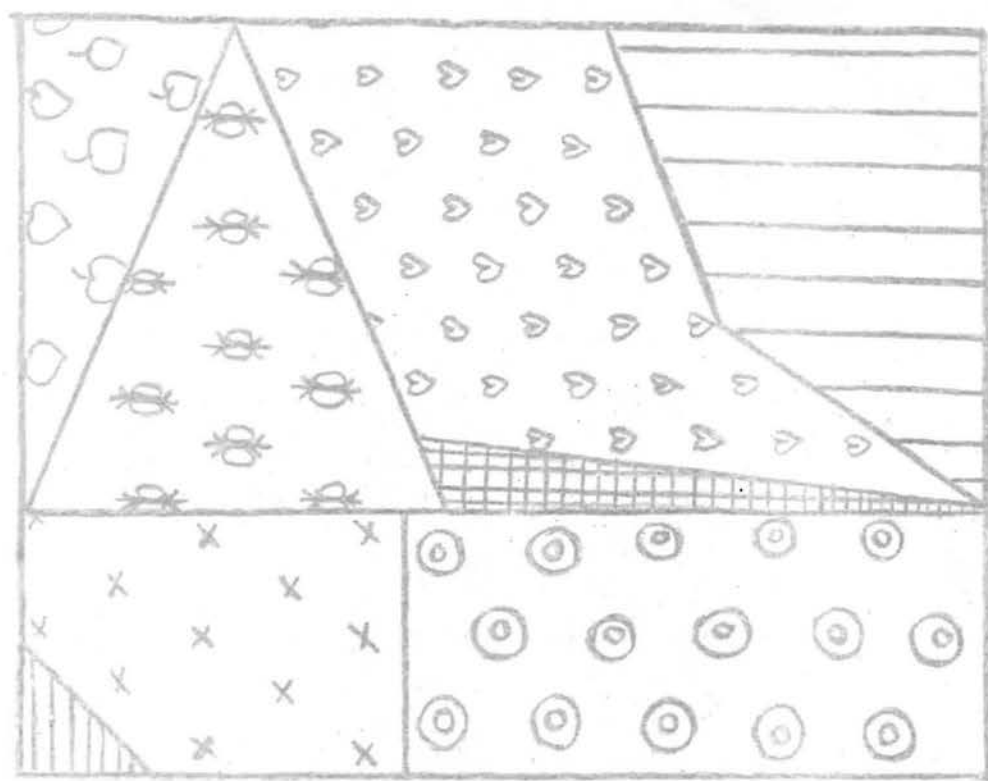
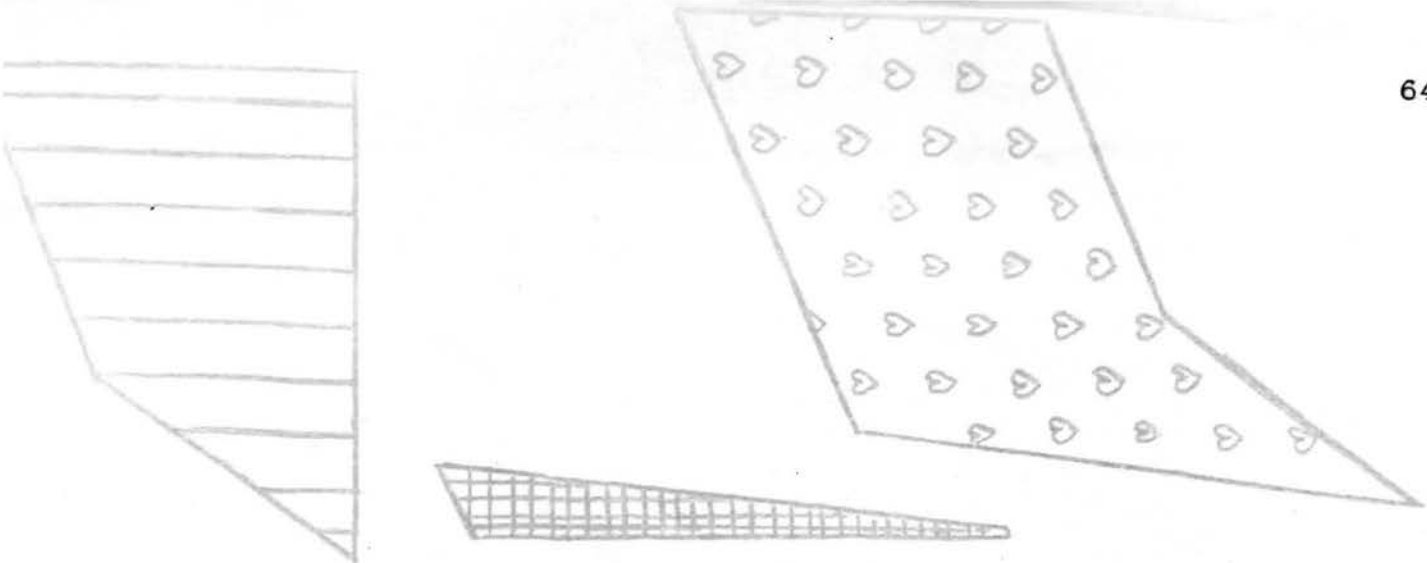
See the little puppy dog. What is he doing? This puppy likes to chew on bones, and you can see he has quite a few around his house. He has even tried to bury some of them in the dirt. See if you can find all of his bones in this picture.

Draw a line under a bone when you find it.



Sew a Quilt (Matching Game)

See the quilt for a bed. Pretty pieces of cloth were sewed together to make it. Wouldn't you like to put the same quilt together? Here are all the loose pieces, but they are all mixed up. Take a crayon and hold it on one of the loose pieces. Now draw a line from that piece to the piece in the quilt that it looks like. Sew all the loose pieces of the quilt together this same way.



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## BIBLIOGRAPHY

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