

Stratman

PART 1



PLAYBOOK



**Play While You Learn
Learn While You Play**

PARENTS ASSOCIATION, PLEASANT HILL, OHIO

PLAYBOOK

PART ONE



PLAY WHILE YOU LEARN
LEARN WHILE YOU PLAY

By

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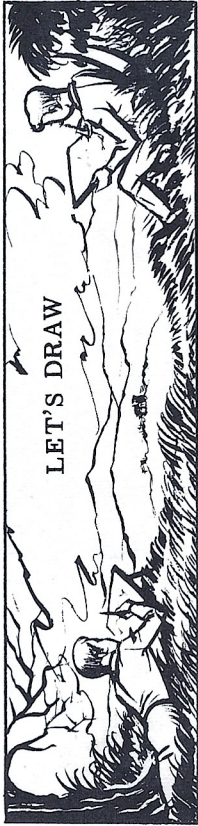
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If you are like most children, you have been drawing things ever since you were big enough to hold a pencil in your hand. Perhaps you draw quite well. If you do, you probably have talent and would like to draw still better.

Have you ever seen a picture that you wanted to make larger or smaller, but didn't quite know how? With your new Draw-Master, you can learn how to make any picture larger or smaller and have it look just like the original.

First . . . Take The Draw-Master

You will find that your Draw-Master contains many pages filled with pictures. They are of birds, flowers, animals, and other interesting subjects.

You will also find that your Draw-Master contains a separate transparent sheet, marked off into tiny squares. By placing this transparent guide over a drawing, you can see the picture right through it.

Now turn to page 2 of your Draw-Master and read the directions. They will tell you how to make an exact copy of the drawing. They will also tell you how to make the drawing larger or smaller.

You Can Make a Beautiful Colored Picture To Hang in Your Room

Some day, when you have mastered the enlarging method, you might like to leaf through the Draw-Master, select your favorite bird, then enlarge it and color it. A brightly colored bird would make a beautiful picture to hang on the wall of your own room.

You can use the transparent guide over any picture that you wish, whether the picture is in the Draw-Master, a magazine, or a regular picture-book.

LET'S MAKE STICK PICTURES

(24 Objects For Small Children to Make)

Jane and Bobbie looked out of the window early one morning and saw a man standing by a telephone pole near their house.

They noticed that a ladder was standing against the house and that a wire was stretched out on the ground near the ladder. They knew that the man was fixing electric wires.

"Jane," said Bobbie, "I believe I know how to make all those things out of sticks."

"How would you do it?" asked Jane.

"I'll show you," said Bobbie. So he ran to his mother for some toothpicks.

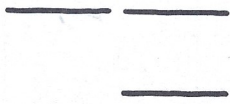


Fig. 1



Fig. 3

What Bobby Did With His

First Toothpick

When he returned to his playtable, he placed one toothpick straight up-and-down, like Fig. 1 on the left side of this page. "This," he said, "is the man."

"Oh, I see!" said Jane. Then she placed a toothpick above the man and said, "Here is the telephone pole." It looked like this. (Fig. 2)

Bobbie said, "The ladder leans over against the house, and the wire is on the ground." So saying, he placed the toothpicks in the order that you see here. (Fig. 3 and Fig. 4)

Jane said, "I'll put another ladder up with its top against this one and have a tent." (Fig. 5)

Bobbie said, "Just make the two bottom sticks of the tent stand up straight like my man and you'll have a house." (Fig. 6)

Jane clapped her hands for joy. "Oh, let's make a house for Rover!" And by widening the bottom of the tent, and making a door in the center, they had a nice little doghouse. (Fig. 7)

Bobbie said, "Let's see how many things in this room we can make out of these toothpick sticks."

Fig. 4



Fig. 5



Fig. 6



Fig. 7

Jane placed four sticks in the shape of a square. She said, "This is a block." (Fig. 8)

Bobbie took the bottom stick from the block, stood it up at the upper left-hand corner and said, "See, Jane, what I've made." (Fig. 9)

"A chair!" said Jane. "Here, I'll put a stick across here and make a better chair." (Fig. 10)

Bobbie liked Jane's chair so well that he made a half dozen of them and played he was a furniture man with chairs to sell.

How Two Chairs Made a Bed

Then he took two chairs, put them together and made a bed. (Fig. 11)

Jane put a slanting stick on it for a pillow. She said, "Bobby, I'll make you a good pillow to sell with your bed. She made two blocks side by side for a pillow. (Fig. 12)

Bobbie looked at it and said, "Good, that's fine!" Then he experimented by pushing some of the sticks down in the middle and he said to Jane in great excitement, "Oh, I see how we can make a book out of this." (Fig. 13)

He laid a stick straight up in the middle and it looked exactly like the story book out of which Mother had read to them about birds. The children had put a bowl of water out for a bird bath. They now went to the window to see if any birds had found it. Sure enough, a bird was flipping water out of the bowl.

"Wouldn't it be funny," said Bobbie, "to be without hands and have to shake yourself in the bath like that to get clean?"

"I'm going to make the bird bath out of sticks," said Jane. So she used her slanting pillows for the sides, and placed other sticks straight across to form the top and bottom. (Fig. 14)

Mother had read that, if children will put threads out-of-doors, birds will use these threads in building their nests. So the children had put out some threads. Jane and Bobbie were eager to see if they could make a spool of thread out of

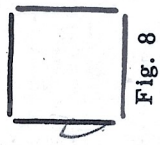


Fig. 8

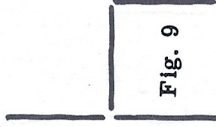


Fig. 9

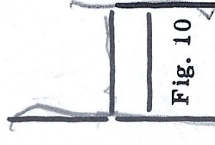


Fig. 10

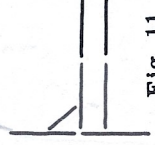


Fig. 11

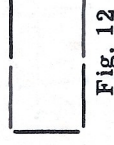


Fig. 12



Fig. 13



Fig. 14



Fig. 15

sticks. They were delighted to find that they could do so, by simply connecting two bird baths with parallel sticks.

The spool they made at first was so large that they decided to make a smaller one by breaking some sticks in two. The smaller spool looked like this. (Fig. 15)

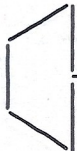
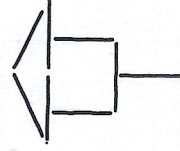


Fig. 16

Bobbie said, "I see something else! Just turn the bird bath upside down, put a stick up to the center, and one across the bottom. You'll have a lamp, like the one Mother uses when she reads stories to us about birds and things." (Fig. 16)

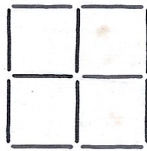
Mother had said that sometimes tiny houses are made for birds. Jane and Bobbie had asked Daddy to make a bird house for them. They remembered that Daddy had taken a spade and dug a deep hole for the post that was to hold up the little house.

Fig. 17



Jane decided to get some more sticks and make a spade. After forming a narrow block for the digging end, she made the handle by using one long stick and three short ones, as pictured here. (Fig. 17) Then Bobbie made the bird house by putting a block under a roof such as he had made before. (Fig. 18)

Fig. 18



The children left their work for a moment and went to the window to look for birds. As they stood there, Bobbie noticed that it would be easy to make a window out of sticks by just making four blocks. (Fig. 19)

Fig. 19

While he was making such a window, Jane called, "Oh, Bobbie, come here quickly! Here comes a bird right toward our house!" "Where?" asked Bobbie.



Fig. 20

Jane pointed to it and said, "When I first saw it, it was so far away that each wing looked like two sticks and the body looked like another stick." She arranged some more toothpicks in such a way as to look just like the bird in the distance. (Fig. 20) The real bird flew to a tree near by. Bobbie made a make-believe tree with eight sticks. (Fig. 21) Then the children went upstairs to watch the bird more closely.

Fig. 21

They found that they could even make a stairway by putting two half blocks together. So they built a long stairway, starting like Fig. 22.

Bobbie looked at Jane a moment and Jane said, "What's the matter, Bobbie? Why are you looking at me, and why are you laughing?" Bobbie said, "I believe I can make you out of sticks!" "Try it!" answered Jane.

Fig. 22

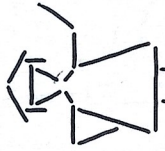


Fig. 23

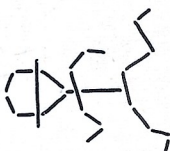


Fig. 24

Bobbie made something like a tent for Jane's dress and used short sticks for her head, hat, arms, and legs. (Fig. 23)

Bobbie had so much fun making Jane, that she decided to make Bobbie. (Fig. 24) Then they called Mother and she laughed at their pictures of each other. She was surprised at how many different things they had made with ordinary toothpicks.

Jane and Bobbie liked to make all of these things over and over. Sometimes they just drew them on paper. They spent one happy hour after another, not only in making stick pictures, but in making up stories about them.

NOW LET'S MAKE THINGS WITH CIRCLES

(27 Objects for Small Children to Make)

After Jane and Bobbie had made all these things out of sticks, Mother showed them how they could also make things out of circles. She showed them how to make circles on cardboard by marking around the edge of quart-jar lids. (Fig. 25) Then, by using a pair of blunt scissors and cutting along each circular line, they could make cardboard disks.

The children made many of these disks and cut some of them into two equal parts. They called these half-circles. (Fig. 26) Then they cut a few of the half-circles into two equal parts and called them quarter-circles. (Fig. 27)

Bobbie said, "While we play, let's see how many things we can find that look like circles and half-circles."



Fig. 25



Fig. 26

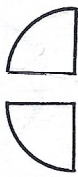


Fig. 27



Fig. 28

He had hardly finished saying this when Mother called them to go with her on a shopping trip. They always liked to go with her for there were so many things to see and talk about. She bought some nice big oranges. Bobbie said in a low tone to Jane, "Circles." (Fig. 28)

Jane nodded and said, "We'll make some when we get home."

At the entrance of a big store, a man was selling balloons. The children had been taught not to tease for things, but Mother, knowing how happy they both would be, purchased a balloon for each of them. Bobbie chose a red one, and Jane a blue one.

When they reached home, they colored some of their pasteboard disks to look like real oranges, and they lined them up on the table.

Bobbie said, "We can make balloons, too."

A circle served as the balloon, and sticks served as the string. (Fig. 29) Jane colored her circle blue just like her balloon, and Bobbie colored his a bright red.

Next they got a big fan and had great fun fanning their real balloons back and forth across the ceiling. They made a picture of the fan by using a circle and a stick. (Fig. 30)

Bobbie said, "Mother, why is it that this balloon goes up when I let go of it, and this little rubber ball goes down to the floor when I let go of it?"

Mother explained that the balloon goes up because it is filled with gas which is lighter than air; that the ball falls to the floor because of the weight of the rubber. She told them that the earth is so big it pulls things to its center, that the weight of any object tells how much the earth is pulling it. She delighted them by telling them that this fact was first discovered by a man who upon seeing a falling apple, wondered why it went down, and not up.

The children thought about this while they made the rubber ball and the apple out of circles and sticks. (Fig. 31 and Fig. 32)



Fig. 29

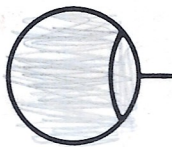


Fig. 30



Fig. 31

Bobbie looked out at the sky and asked, "If the earth pulls so hard, why don't the moon and the stars fall down, too?"

Mother told them then of the great size of the universe and of how the heavenly bodies are kept in place by the pull that they have upon one another. She took hold of one of Jane's hands and said to Bobbie, "You take hold of Jane's other hand and make her come to you."

Bobbie pulled and Mother pulled, but Jane stood still between them.

"Why don't you pull her to you?" asked Mother. "Why, because you are pulling her toward you," said Bobbie.

Why Stars in the Sky Stay in Place

Mother said, "That is the sort of thing that keeps the stars in place. One heavenly body pulls them in one direction while another heavenly body pulls them in the opposite direction. That is why they seem to stand still."

"I see how it is," said Bobbie. "I'm going to make a moon." He made it out of a circle and sticks. (Fig. 33) He colored it first yellow, and then red over the yellow.

By this time Bobbie was so hungry that he welcomed his mother's call to luncheon. He and Jane liked everything Mother had for them to eat. They especially liked her small, fresh-baked apple pie. (Fig. 34)

Jane said, "Bobbie, our pie is shaped just like the quarter-circles we made this morning."

After luncheon, Bobbie held up his cap and said, "Look, Jane, my cap is a half-circle and two sticks." He showed her what he meant by making a cap like this. (Fig. 35)

Jane said, "I can make my red play hat, too." She had several hats but she liked the red one best. She ran and got it and made a hat just like it out of a half-circle and sticks. (Fig. 36)



Fig. 32



Fig. 33



Fig. 34



Fig. 35



Fig. 36

They took some bread crumbs from the dining table to feed the fish which they kept out in the yard in a large bowl filled with water. They rang a little bell to call the fish, and the fish crowded to the side of the bowl nearest the children. Some of the fish actually jumped up above the surface of the water in their eagerness to get the crumbs.

Bobbie said, "Oh, I see how we could make a fish bowl--with a half-circle and a stick." (Fig. 37) Jane looked up at the sky and saw some dark clouds. She said, "I think it's going to rain."

Sure enough it did begin to rain and Bobbie said, "Shall I get the umbrella for you, Jane?" Jane said, "No, I'm going inside. I'm going to make an umbrella." So Jane made the umbrella while Bobbie made the fish bowl. (Fig. 38)

After the rain, they went calling with Mother. They passed a fine house where there were shrubs in the corner of the yard near the sidewalk. Under one of the bushes, Bobbie saw something, the like of which he had never seen before. Pointing to it, he said, "What is that, Mother?" "Why, that is a toadstool," said Mother.

"Do toads sit on them?" asked Jane. "No," replied Mother, "that is just a fairy story."

When they returned from calling and their father came home, Bobbie told him about the toadstools and made one for him with a half-circle and sticks. (Fig. 39)

Following the evening meal, Mother showed the children how to make another kind of circle. After outlining a quart-jar lid on cardboard, she outlined a smaller can lid within that circle. Then she had the children cut along both these circular lines. Jane and Bobbie made many of these new figures, cutting some of them into half-circles and some into quarter-circles.

When Bobbie got out his hoop to roll, Jane made him a paste-board hoop. (Fig. 40) Before she got out her own hoop to roll, Jane



Fig. 37

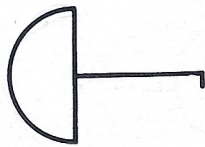


Fig. 38

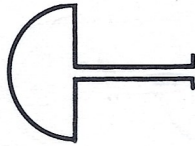


Fig. 39

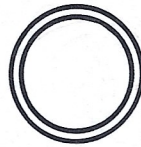


Fig. 40

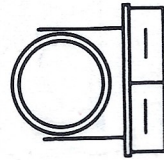


Fig. 41

went to the mirror to put on her hat. On the dresser, she saw her bracelet and put it on. Before she went outdoors she made a mirror out of a circle and sticks. (Fig. 41) Out of another circle, she made a bracelet. (Fig. 42)

After the children had rolled their hoops for a while, they thought of their wagon. Jane said, "Let's make a wagon wheel out of a circle and sticks." (Fig. 43) Bobbie said, "I believe I can make a whole wagon out of them."

"Do it!" said Jane.

The wagon he made was like this. (Fig. 44)

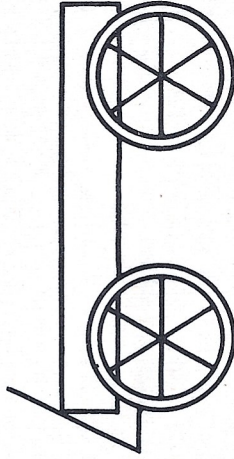


Fig. 44

Then Mother went out on the porch with the children. She said, "Let's sit down together in the hammock and watch the moon." As they watched it, Mother repeated very slowly the words of the poem, "Wynken, Blynken and Nod."

Jane said she could make a hammock out of a quarter circle and some sticks. (Fig. 45)

Bobby held up one of the half-circles he had in his hand. He said, "Why is the moon sometimes like this, and sometimes like the round moon I made today?"

Mother explained that in a little less than two weeks the moon would again appear as a full moon, and look like a big, round circle.

Bobbie made a crescent moon out of a half-circle. (Fig. 46)

The afterglow of the setting sun made the nearby church window look as if it were burning.

Jane made the church window out of a half-circle and some sticks. (Fig. 47)

"What color do you call that, Mother?" asked Jane, pointing to the church window.



Fig. 42



Fig. 43



Fig. 45



Fig. 46

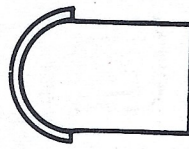


Fig. 47



Fig. 48

‘‘It is red,’’ said Mother.
 ‘‘It is not exactly the color of the hearts we got on St. Valentine’s Day,’’ said Jane, and she went and got one of the hearts.

After Mother explained that there are several kinds of red, the children made hearts out of half-circles and sticks. (Fig. 48)

Soon it got too dark to see the leaves on the trees. ‘‘I have looked at the leaves so often I know how to make them,’’ said Bobbie.

He made some leaves by using half-circles and sticks. (Fig. 49)

‘‘Let’s make the little flowers that grow by the porch,’’ said Jane. They made the flowers like this. (Fig. 50)

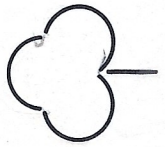


Fig. 49

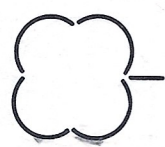


Fig. 50

As Mother put the two happy children to bed that night, Bobbie said, ‘‘Good night, Mother. I’ve had a fine day!’’

Jane said, ‘‘We found out lots of new things.’’
 ‘‘Tomorrow,’’ said Bobbie, ‘‘I’m going to see how many of the birds, animals, and other pictures I can make with sticks and parts of circles.’’

‘‘Why, Bobbie,’’ said Jane, ‘‘every day all the time, we can make houses, and furniture, and garages, and cars, and playthings, and just everything we see.’’

Mother smiled as she left the children, thinking how much they were learning each day, and how happy they were while learning.

LET’S DRAW FACES
 (For Older Children)

When more than 31,000 children over the United States were asked to draw anything they liked, more of them drew pictures of human beings than of any other one thing.

This indicates that children like to draw people, and so this section is devoted to the portrayal of human beings.

KINDS OF LINES

Fig. 52 Fig. 53 Fig. 54 Fig. 55 Fig. 56 Fig. 57

The outline is the basis of all drawing. Outlines are made with straight lines or curved lines. These lines may be long or short. They may be joined at all sorts of angles. All outlines can be divided into segments small enough to look like one of these six lines. (Figures 52 to 57)

You will notice that these lines are either straight or curved, and that the curves are a part of larger or smaller circles.

Place a piece of tissue paper over these six kinds of lines and trace them several times. Then try to draw them free-hand, just by looking at the original series.



PROFILE OF BOY AND GIRL

The dots on the outline of the boy’s face (Fig. 51) show you how to draw one small section of it at a time. The lines that combine to make his face are all curves.

The line down from tip of his nose, together with the line to the top of his upper lip, is a curve like Fig. 57. See if you can tell what other lines are represented in making his face.

Trace the boy’s face. Observe the curve of each segment as you proceed carefully from one dot to the next.

A girl’s face may be divided up in the same way. (Fig. 58)

Now try drawing a girl’s face free-hand. Tint the faces of the boy and girl flesh color by going over white very lightly with red. Make the girl’s hair yellow, and the boy’s hair black.

Draw a silhouette of your father. (Fig. 59) Also draw one of your mother. (Fig. 60) Trace their shadows on a big cardboard placed against the wall, then fill in the outlines by making the figures entirely black.

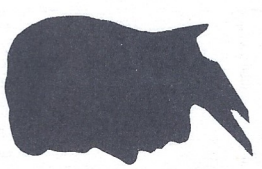


Fig. 58

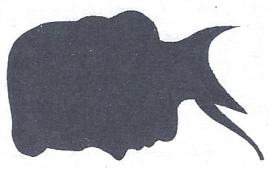
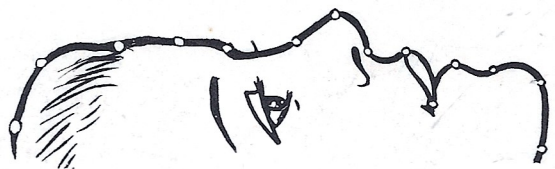


Fig. 59

Fig. 51

Fig. 51



PROFILE OF MAN

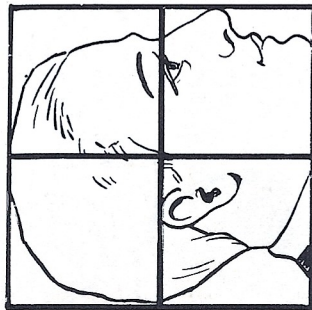


Fig. 61

Draw this face first just as it is (Fig. 61) noticing that the top of the ear touches the horizontal line of division. See that the eye is just below this same line.

Now trace this face without the dividing lines.

Next draw it free-hand using the cross lines.

Now place your free-hand drawing over the original and notice what mistakes, if any, you have made.

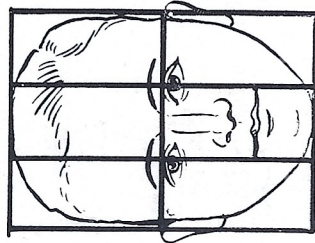


Fig. 62

FULL-FACE VIEW

Notice that the full-face view (Fig. 62) is narrower than the side view. The ears and eyes fall in the same relative position as they did in the profile.

The vertical lines, that divide the face into thirds, run through the center of the eyes. The mouth extends from one of these lines to the other.

After you have put in the dividing lines, draw faces that you see in magazines.

Then, making only a dot where the lines would come, at the center of the eyes and the corners of the mouth, draw other front-view faces.

Now, without even the dots, but estimating where the eyes and mouth should be located, draw front-view faces free-hand.

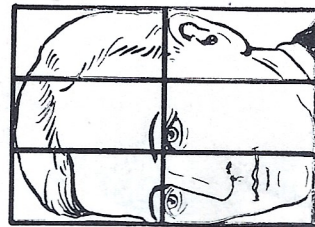


Fig. 63

THREE-QUARTER VIEW OF FACE

The three-quarter view of the face (Fig. 63) is the same width as the front view.

The front line that helps to divide the face into thirds locates the bottom line of the nose and the corner of the mouth farthest from the front.

Note again the position of the ear and eyes.

Trace only the framework lines and fill in the face with free-hand drawing.

Now make the straight lines again, but this time draw a face to give a three-quarter view of the other side.

Trace, then draw free-hand, three-quarter view faces found in magazines.

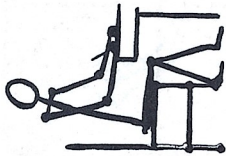


Fig. 64

THE SKELETON

The human skeleton (Fig. 64) has many lines that are about the same length.

The shoulder line and hip line are the same width.

The length of the leg from the hip to the knee is approximately the same as the length from the knee to the heel.

Notice that the forearm and fist together are equal in length of the arm between the shoulder and the elbow. Put your doubled fist as near as possible to your shoulder and see if this rule doesn't apply to you.

The distance from the base of the head to the center of the hip line is approximately twice the length of the upper arm.

Trace this skeleton and then draw it from memory.

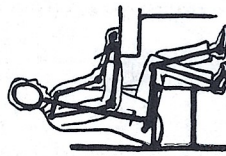


Fig. 65

THE SKELETON CLOTHED

Place over Fig. 65 the piece of tissue paper on which you traced Fig. 64. Then clothe the skeleton and give him a face by tracing Fig. 65.

Color his suit brown and make his face pink.

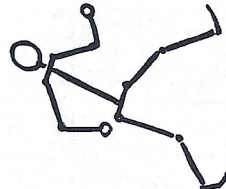
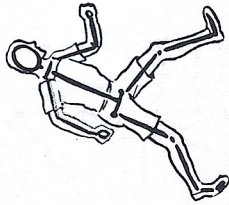


Fig. 66

RUNNING POSITION OF SKELETON

Notice the position of the arms and legs of this skeleton. (Fig. 66) He is running. Trace the figure.



THE RUNNING MAN

Place over Fig. 67 your traced drawing of Fig. 66. Then clothe this running position of the skeleton by tracing Fig. 67.

Use your own selection of color for his suit.

Fig. 67

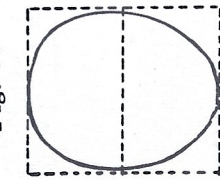


Fig. 68

Trace the oval in Fig. 68 to represent the front view of a child's face. Children's heads are larger in proportion to their bodies than are the heads of adults.

THE CHILD'S EYES

Notice that the eyes are on the vertical lines that divide the face into thirds and that they are a little higher than the eyes of most adults. In other words they are exactly on the middle line of the face instead of just below it. (Fig. 69)

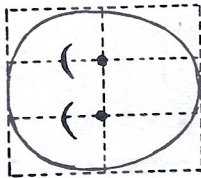


Fig. 69

THE FINISHED EYES

Complete the eyes of the child by tracing the proper lines above and below the dots. (Fig. 70)

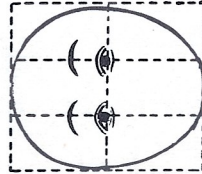


Fig. 70

THE FINISHED FACE

Place on Fig. 71 the piece of tissue paper on which you traced Fig. 70. Then trace the mouth and ears, noting that the location of the ears is about the same as in pictures of adults, but that the mouth of the child does not extend one-third of the way across the face.

Change this picture to look like a girl's face by making the hair look fluffy like a girl's.

Now draw a child's face free-hand, taking one step at a time. Locate the features this time by dots, instead of lines.

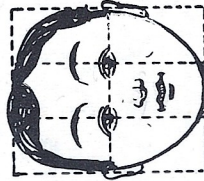


Fig. 71

Next draw the face without even using dots, but just thinking where the eyes, nose, and mouth should come.

When practicing the drawing of forms and faces from models instead of pictures, a doll will serve as a better model than a person, because it will not move or change expression.

ACTION PICTURES

In Fig. 72, note the angle of the body in the running position. In the larger illustration below (Fig. 73) note the change in the position of the legs when standing, walking, and running.



Fig. 72

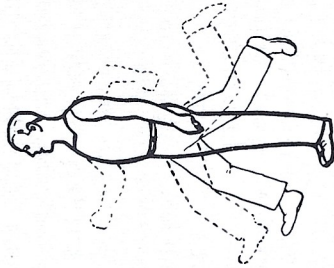


Fig. 73



Fig. 74

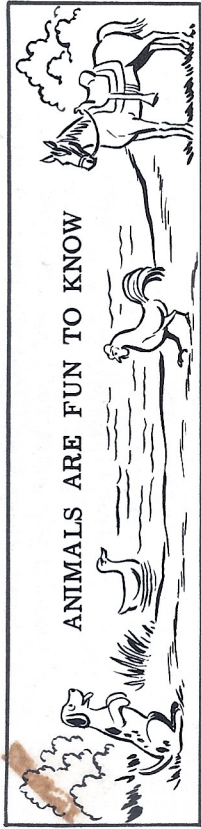


Fig. 75



Fig. 76

Reproduce these drawings on a larger scale. In Fig. 73, make dotted lines to indicate that the man leans forward when he runs. In reproducing the dog, (Fig. 75) make him stand still, walk, and run, by using dotted lines as in the illustration shown above him.



ANIMALS ARE FUN TO KNOW

THE COW HAS MANY USES

Early in the history of man, the cow was found useful. She furnishes beef and milk for food. Her hide makes good leather. Her hoofs are used in making glue, and even her bones are used for fertilizer, buttons, and ornaments.

The cattle that are considered best for giving rich milk are the Jersey and Guernsey cows, named for islands near France from which they first came.

Trace the cow on the Draw-Master. To make a Jersey cow, color it tan; to make a Hereford, make the face, breast, feet, and the end of the tail white, and the rest a reddish color. To make an Aberdeen Angus, leave off the horns, and color the animal black. (Fig. 77)



Fig. 77

THE HORSE IS VERY TEACHABLE

Horses have keen senses. Perhaps that is the reason a horse can be trained more easily than most other animals.

A horse can be taught to do things that are almost unbelievable. By observing small signals on the part of his trainer, he can mount a pedestal, climb steps, "kiss" his trainer, carry an article in his mouth, fire a pistol. He can change from one gait to any one of four others. He can pivot, arch his neck, sidestep and, by kneeling, make a graceful bow to an audience. At command, he can lie down, sit up, or answer questions with a nod or a shake of his head. He can even appear to solve difficult mathematical problems by pawing the ground the correct number of times.



Fig. 78

Ponies were brought from the mountains of India, heavy draft horses from northern Europe, and thoroughbreds from Arabia and Turkey.

Copy a horse from the Draw-Master and make him the color of your favorite horse. (Fig. 78)

THE ROOSTER--THE ALARM CLOCK YOU NEVER NEED TO WIND

The cock, called in the United States the rooster, is a very handsome fowl. His long slender feathers are used as ornaments, especially in the decoration of women's hats.

His shrill cry of exultation in the early morning is called crowing. One rooster will answer the crowing of another rooster as far as the sound can be heard.

In some localities cocks are trained to fight each other. Their fearless and persistent fighting furnishes entertainment for crowds. But in many places cock fighting is forbidden by law.

Copy the rooster in the Draw-Master. Color his comb and wattle a flaming red.



Fig. 79



Fig. 80

SHEEP ARE QUEER

Compared with the more intelligent animals such as the dog or the horse, sheep have a reputation for being stupid. They cannot be trained. They simply haven't the capacity to learn.

Sheep are likely to do what all the others in the flock do. If one sheep jumps over a fence, the chances are that all the others will jump over it too, but not for any good reason. It's just that they seem incapable of independent action.

Although their flesh is used to some extent for food, sheep are raised chiefly for their wool, which is woven into cloth. (Fig. 80)

There are many breeds of sheep. Some produce fine wool, and others produce coarse wool.

Sheep were once sheared by hand, but now the shearing is done by machinery.

Draw a sheep. To make a Suffolk sheep, color its nose, ears, feet and legs black.

To make a sheep of the Black-faced Highland variety, color the face black, make horns that curl around a circle and a half, and make the wool longer.

THE TURKEY IS FOR THANKSGIVING

The turkey is a large American bird of the pheasant family. It was formerly believed to have come from Turkey.

The male can spread his tail like a fan.

Turkey is considered to be the appropriate meat for Thanksgiving Day because the Pilgrims had wild turkey on their first Thanksgiving in 1621.

Copy a turkey from the Draw-Master. Color him a brownish tan, with red head and neck.



Fig. 81



Fig. 82

THE PIG GOES TO MARKET

The pig loves to wallow in mud to keep cool-- as all thick-skinned animals do. (Fig. 82)

Pigs will feed upon almost any kind of food. Farmers are particular, though, to feed them well and fatten them, because the more a pig weighs, the more money it will bring when sold on the market.

The flesh of the pig is called pork.

Pig's bristles are used for brushes; and its hide, for saddles, book bindings, gloves, and traveling bags.

To color a Yorkshire pig, leave it all white. A Poland-China pig is all black.

THE DOG--"MAN'S BEST FRIEND"

There are about 200 kinds of dogs. You will see pictures of some of them in the Draw-Master. Maybe you will recognize some of the breeds at a glance.

Perhaps you have a dog of your very own. When I was a boy, I had a pet dog, named Juno. She was a Scotch Collie.

Juno was so responsive to my father's training that, within a month's time, she had learned so many tricks that it took her nearly an hour to perform all of them.

Among other things, she learned to make daily trips to the Post Office for the mail which she carried in a little covered basket with a soft handle for a mouth piece. To the bottom of the basket was attached a little tinkling bell so that the postmaster would know when to open the door for her and place the mail in her basket.

One day the superintendent of the village school brought all of his pupils out to see this amazing dog perform. The children clapped their hands and shouted with glee to see her climb ladders, and play "dead dog," or balance her weight on a teeterboard. To say her prayers, she would jump up on a chair, place her paws on the chair-back, bow her head between her paws and "pray" for all the other little dogs in town. She would keep right on praying, much to the merriment of the youngsters, until she heard Father's "Amen!"



Fig. 83



Fig. 84

THE RABBIT IS A GREAT JUMPER

Rabbits are found wild almost everywhere. Unlike most other gnawing animals, called rodents, rabbits cannot use their front feet for handling objects. When a rabbit sits up on his hind legs, his forefeet hang useless.

When a rabbit is frightened, he may "freeze" and sit perfectly motionless, or he may hop away

at terrific speed.

Rabbit fur is so soft and so easily processed that it is used as a substitute for many types of more expensive fur.

To make a snowshoe rabbit, leave it all white. That's the way he is in winter. In summer, he is brownish with white feet.

A jack rabbit has long ears, a tannish brown back, is white on the under side of his body, and has a white tail.



Fig. 85

A CAT CAN SEE IN THE DARK

Because of the cat's ability to see in the darkness of night, stray cats are destructive of bird life.

A cat's whiskers are supposed to extend out just as far as its body is wide, so that by thrusting its head into a hole, it can find out whether or not the hole is large enough to admit its body.

A cat can keep in mind all the turns of an intricate journey and return to the place from which it started.

Persian cats have long silky hair. To make a popular color of Persian cat, leave it white with blue eyes, or make it black with orange-colored eyes. (Fig. 85)

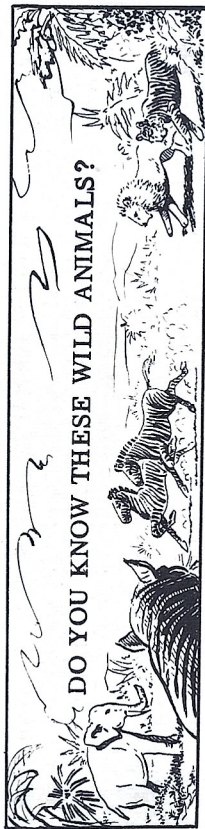
THE SQUIRREL LIKES NUTS

The squirrel is a small, slender animal seen frequently in parks or wherever there are trees. He has a long bushy tail and strong hind legs which enable him to leap from one branch of a tree to another. He lives principally on nuts.

In the United States we have gray squirrels whose fur is valuable, small red squirrels, and larger fox squirrels. (Fig. 86)



Fig. 86



DO YOU KNOW THESE WILD ANIMALS?

Wild animals are growing fewer each year. One reason is that they have less territory to live in, now that more and more of the earth's surface has become populated. Another reason is that hunters kill or trap so many of them. A few animals that once were found wild in great numbers are now found scarcely anywhere except in circuses and zoological gardens.

THE DEER IS SHY

The deer on the Draw-Master represents an American elk. It grows to be eight feet tall, including head and neck. It is about five feet high at the shoulder.

The horns of an old animal are sometimes as long as the deer is tall. (Fig. 88) These horns would be exactly alike if no accident happened to them, but often some of the prongs get knocked off so that the two horns differ in shape.

Some people believe that a deer is as many years old as it has prongs on its horns, but this is not always true. Yet it is true that young deer never have long horns with many prongs, while the old ones usually do.

To make an American elk, color the animal a reddish brown.

To make a Virginia deer, color the body a bright chestnut above with a black band on the chin. Leave the throat, the under side of the body, and the inside of the legs white.

To make a mule deer, draw large ears and color the body a dull, yellowish color above and white beneath.



Fig. 87



Fig. 88

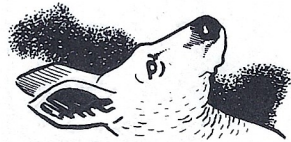


Fig. 89

THE KANGAROO HAS A BABY CARRIAGE

The kangaroo is at home in Australia. He is an odd-looking animal because his forelegs are so short and his tail so thick and long. His tail helps to hold his body up when he is sitting still and helps him to jump when he is moving.

A kangaroo jumps the length of himself when he is traveling under ordinary circumstances. When he is frightened, he can jump three or four times that far.

The little kangaroos are in most instances less than an inch long at first and the mother carries them in her pouch until they are eight months old. A kangaroo, with one blow of its hind foot, can kill a dog.

The kangaroo is only one of many kinds of Australian animals that carry their young in pouches. The American opossum is the only pouched animal found outside of Australia.

Copy the kangaroo in the Draw-Master and color him light brown. (Fig. 89)



Fig. 90

THE TIGER IS A FEROCIOUS CAT

The tiger is the most powerful of the cat family. In the jungle, its stripes look like shadows, so that it cannot be easily seen by other animals. (Fig. 90)

The tiger lives near water so that it can spring out on animals as they come to drink.

Africans fear tigers more than they do lions. The tiger is a beautiful orange-yellow in color, with white trim and black stripes.



Fig. 91

THE LION IS THE KING OF BEASTS

When the male lion is three years old, his mane begins to grow. The lion's roar is the loudest call among animals. He puts his head to the ground when he roars, thus breaking the

sound waves so that his prey, hearing the roar, cannot tell where the lion is, and may run right to him in fright. The lion is the only animal of the cat family that cannot climb a tree.

The lioness is smaller than the lion. She has no mane. The lion chooses a mate for life and protects her always.

The story of how Samson killed a lion and made a riddle about it is found in the Bible in Judges the 14th chapter.

THE LEOPARD IS BEAUTIFUL

The leopard is another big, ferocious cat. His color is buff with black spots. He lives in the jungles of Asia and Africa. His fur is sometimes used to make beautiful coats. (Fig. 92)

To make a leopard, copy the tiger in the Draw-Master and make spots instead of stripes on him.



Fig. 92

THE LYNX IS A WILD CAT

The lynx is another fierce member of the cat family. It is a flesh-eating animal having relatively long legs, a short stubby tail and, often, tufted ears.

To make a lynx, trace the tiger, make the above alterations, and color him tan.



Fig. 93

THE FOX IS SLY

The fox is of the dog family. It is smaller than a wolf and is found in nearly every country of the world. (Fig. 94)

The fox is known to be extremely crafty. It can outwit other animals as well as human beings. For example, when dogs are chasing it, it will run very fast, then double back on its trail and suddenly make a great leap away from the track. The dogs follow the trail out to the point where the fox doubled back and then they do not know where to go.

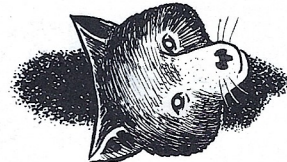


Fig. 94

To make an Aleutian fox, color it black with silver tips. To do this, make the tip of the ears and tail white and put short white marks all over the fox to show that the tip of each hair is white.

In order to make what is called a crossed fox, make him gray above, black beneath and on his nose, and make a black cross over his shoulders.

THE BEAVER BUILDS A DAM

The beaver is amphibious. That is to say it can live either in water or on land. It has a flat oval tail, webbed hind feet, and a very beautiful coat of brown fur. The beaver is noted for its skill in gnawing off young trees and branches with which it builds a dam-like construction which is really its home. Beaver fur is very valuable.

Enlarge the picture of the beaver and make him dark brown.

THE BEAR IS PLAYFUL

The bear is somewhat like a big, shaggy dog, but it can climb a tree. (Fig. 96)

A bear will eat almost any kind of food, but he is especially fond of fruit, ants, and honey.

Some bears hibernate during the cold months. They shut themselves up where they can keep warm. In the spring when they come out of their shelter, they are lean and weak.

When the black bear comes out of his winter quarters, the skin of his feet peels off, leaving them uncomfortably sensitive. Being weak and tender-footed, he has a hard time getting food for several weeks.

Bears like fun. When penned up, they will play with a hat, a barrel, or any such thing. They even like to have people play with them.

To make a polar bear, leave the animal all white except for the claws, the end of the nose and the lips which are black.

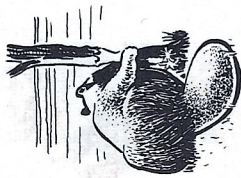


Fig. 95



Fig. 96

To represent a grizzly bear, use a brownish-yellow color and darken the back and legs.

If you wish to make a cinnamon bear, use a cinnamon color--a combination of red, yellow, and black.

To make a black bear, color him black except his face which should have a brownish tinge.

THE ELEPHANT CAN BE EASILY TRAINED

The elephant is the largest living land animal. There are two kinds of elephants, the Asiatic and the African. Those seen in America are nearly all Asiatic because it is hard to tame African elephants.

The skin of the elephant is very thick.

The elephant's trunk is used for a hand and as a weapon. His nostrils extend through the entire length of this trunk to the tip.

On each side of the elephant's mouth is a long ivory tusk. (Fig. 97)

Elephants can be taught to do many useful things.

Two tame elephants can be trained to keep a wild one interested in them until hunters can tie the wild one's legs with chains. The captured animal resists violently at first, but soon becomes tame.

Elephants are of great value in moving heavy loads. They will pick up great timbers, balance them on their tusks, carry them as far as need be and lay them down in straight piles.

You may have seen elephants in circuses performing all sorts of tricks.

Trace an elephant from the Draw-Master and color him gray.



Fig. 97



Fig. 98

THE ZEBRA IS A STRIPED BEAST

The zebra resembles a small horse, and is a native of Africa. He has a white or yellowish-tan

body striped with black or dark brown. He is a very distinctive looking animal and is seen in circuses and zoos. (Fig. 98)

THE BUFFALO SERVED THE INDIANS

The buffalo is a kind of wild ox. It is a large animal with massive shaggy fore quarters and head. Buffalo once wandered in great herds over western United States. Its flesh was used by the Indians for food, and its fur for blankets and robes. The white man, upon coming to western America, killed the buffalo in such large numbers that there are now relatively few in existence. (Fig. 99)

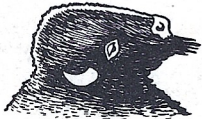


Fig. 99

OTHER WILD ANIMALS

Select for study some particular kind of wild animal and read all you can about it.

The following varieties of animals make extremely interesting studies; apes, monkeys, hyenas, wolves, coyotes, weasels, otters, badgers, giraffes, porcupines, armadillos, opossums, tapirs, goats, llamas, and racoons.

LET'S MAKE A FARMYARD

Some rainy day, when you are in search of something to do, take a cardboard box and make a barn. Copy from the Draw-Master cows, pigs, sheep, and any other animals you want for your farm yard. Color them neatly, then cut them out and make them stand. (Fig. 100)



Fig. 100

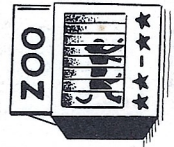


Fig. 101

OR YOU CAN MAKE A ZOO

You can make copies of the lion, leopard, tiger, zebra, bear, and other wild animals. Cages can be made from little boxes. Or, if you like, you can arrange an outdoor zoo with moats, hills and caves, such as are seen in large city zoos.

Note: You can make a game with animal pictures as the following paragraphs will show.

LET'S PLAY "BRING 'EM BACK ALIVE"

KIND OF CARDS...

First, you will need 36 cardboard cards, about $2\frac{1}{2}$ x $3\frac{1}{4}$ inches in size. You can cut all these out of any discarded cardboard or extra heavy paper that you may have about the house.

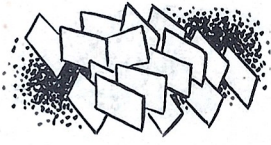


Fig. 102

PICTURES ON CARDS...

Next, using the pictures in the Draw-Master, copy each of the following pictures on the required number of cards. (Fig. 103)

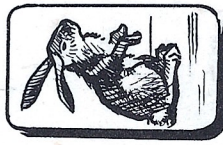


Fig. 103



Fig. 104

If the picture is too large for the card, use only the animal's head, like Fig. 105.



Fig. 105

Animal	Number of cards
Bear	3
Cow	5
Cat	5
Pig	2
Dog	5
Camel	2
Sheep	1
Horse	3
Lion	1
Donkey	1
Rabbit	2
Elephant	1
Squirrel	2
Giraffe	2
Buffalo	1

COLOR THE PICTURES LIKE THIS

Make YELLOW: 2 dogs, 2 cats, 2 cows.

Make BROWN: 1 horse, 1 dog, 1 cow, 1 camel, 1 bear, 1 buffalo.

Make GRAY: 1 elephant, 1 cat, 2 squirrels,
1 donkey, 1 horse.
Leave WHITE: 1 sheep, 1 pig, 1 cat, 1 bear,
1 dog, 1 horse.
Make TAN: 1 lion, 1 rabbit, 1 cow, 1 camel,
2 giraffes.
Make BLACK: 1 bear, 1 cow, 1 rabbit, 1 cat,
1 pig, 1 dog.

Now on the back of each card print the name
of the animal whose picture appears on the front.
(Fig. 104)

NOW YOU ARE READY TO PLAY

"BRING 'EM BACK ALIVE"

OBJECT OF GAME: to get as many as possible
3-card groups, all having animals of the same
color, before any one player runs entirely out
of cards.

LET'S PLAY

Deal 7 cards, picture side up, to each of two,
three, or four players.

Put remaining cards, picture side down, in the
FOREST, as the pile in the center of the table is
called.

Each player then sees if he has 3 animals of
the same color, as 3 gray ones. If he does,
he puts the 3 together, picture side up, on the
table in front of him. (Fig. 106) This is his
CAGE. He then holds his remaining cards
spread fanshaped in his hand, the pictures fac-
ing him.

The player to the left of the dealer starts the
game. He looks at the backs of his left-hand
neighbor's cards on which the animal names are
printed. (Fig. 107) Perhaps the player has two
black animals in his hand, and he sees the word



Fig. 106

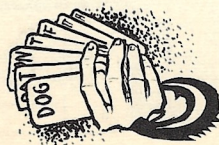


Fig. 107



Fig. 108

BEAR on his neighbor's card. So he says, "I'll
trap a bear." His neighbor then gives him the
BEAR card. If it is a black bear, then the
player will have 3 of a color to place in his
CAGE. If the new Bear he receives should not
be black, he just adds it to the cards in his
hand and waits until his turn comes around
again. The player to his left "traps" an animal
from his left-hand neighbor, and so on around
the circle.

In case the player finds no animal that he
wants from among his left-hand neighbor's supply,
he may then go to the FOREST and trap what-
ever animal has its name on the top card in the
pile.

The player who traps the most animals for his
CAGE wins the game. (Fig. 108)

If you want to extend this sport over the entire
HUNTING SEASON, you might play a series of
games, the score being kept for each HUNTER
until 5 games are completed and the TRAPPER
of the largest total number of animals is found.

If the cards are made carefully, this game can
be an enduring source of fun for grownups as
well as for youngsters. It is a good party game.



Birds differ widely in size and form, accord-
ing to the place they live and the manner in
which they obtain their food. They range in size
from the tiny hummingbird on up to the gigantic
ostrich which may reach a height of eight feet
and attain a weight of 300 pounds. (Fig. 109)



Fig. 109

Some birds, like hawks, owls, and eagles, feed on small animals. Such birds have sharp claws with which to seize their prey. They also have hooked beaks for tearing apart the flesh of the creatures they kill.

Certain birds that live near the water have long, stilt-like legs for wading out into the shallows. Usually these birds have correspondingly long necks and beaks with which to snatch fish and other bits of food from the water. (Fig. 110)

In contrast, other water birds such as ducks and geese are short and dumpy. Their general bodily structure, together with their webbed feet, equips them not for wading, but for swimming on the surface of the water. (Fig. 111)

Still other birds, such as vultures and buzzards, serve as scavengers. That is, they feed on decaying flesh. They are nature's clean-up squad. They keep the countryside healthful for the rest of us.

Then there are other birds, like swifts, martins, and flycatchers, that do not even need to stop flying to eat. They capture their insect-food directly from the air.



Fig. 110



Fig. 111

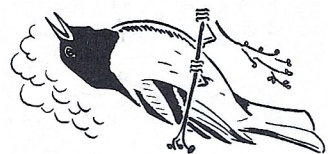


Fig. 112

THE BALTIMORE ORIOLE MAKES A SWINGING NEST

The Baltimore oriole is said to be named for Lord Baltimore whose coat of arms displayed the same orange and black as adorn this beautiful bird. (Fig. 112)

The female oriole comes northward more slowly than the stronger, more energetic male and arrives at the summer residence later. She builds a nest that swings from a far-out limb that will not hold the weight of a sneaking cat. This pouch-like nest is seven or more inches deep and is so constructed that rain cannot enter it, nor wind blow it loose from its bough. The eggs are from four to six in number.

They are of a whitish color, scrawled over with dark brown marks.

These birds eat insects.

The female is the size of the male. But her coloring is less brilliant, and she is brown where he is black.

THE ROBIN IS A CHEERY BIRD

The robin redbreast is one of the most familiar of birds because it seems to enjoy being near people. (Fig. 113)

The robin is said to have been named by the English colonists for Robin Hood, the legendary English woodsman.

The robin's nest, though untidy and poorly built, is often used for a second brood of young.

The robin's eggs are four in number and of a turquoise color so distinctive as to give the name of robin's-egg blue to that color wherever found.

A young robin eats about one and a half times its own weight of food every twelve hours.



Fig. 113

THE SWALLOW IS A GRACEFUL FLYER

This bird on the Draw-Master is a cliff swallow, called in the East the eave swallow.

Swallows live in colonies, thousands of them sometimes being in one group. They build their nests of mud, lined with feathers and grass.

Their eggs are five to seven in number and are white, spotted with reddish brown.

It is true that when swallows fly low it is quite likely to rain because the air before a storm is usually heavy with moisture, and the insects upon which the swallows feed cannot fly high.

To make a barn swallow, color the back of the bird purple, and the underside a pale reddish brown. Make the tail deeply forked.

To make the tree swallow, color the bird dark green above, and white below. (Fig. 114)

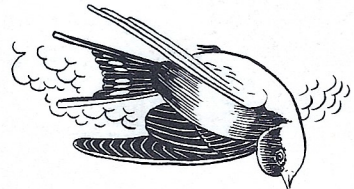


Fig. 114

To represent a bank swallow, make the upper part of the body black over red, put a black band across the breast, and leave the remainder gray.

THE CARDINAL IS BRIGHT RED

Cardinals nest four or five feet from the ground in thickets. The nest contains three or four eggs which are white or bluish white, and speckled with grayish or reddish brown spots.

It is a beautiful sight on a winter morning to see the flash of a cardinal's brilliant feathers against a snowy landscape. When he settles on the ground or on a low-swinging branch, he makes a striking appearance. His erect posture, his high crest, and the jet-black markings on his head and throat, combine to distinguish him as an aristocrat among birds. (Fig. 115)

To color a cardinal, make him the brightest red you possibly can.

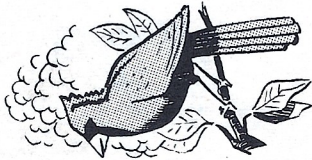


Fig. 115

THE BLUEBIRD IS THE SYMBOL OF HAPPINESS

The blue bird is a small song bird of the thrush family. It is not to be confused with the blue jay which is a larger, crested bird.

The bluebird returns from the South in March. His sweet, clear notes are said to be the herald of spring. Some people think his call sounds like "Tru-al-ly, tru-al-ly." At any rate, the sound of his voice gives the signal in New England for people to work in the sugar camps and prepare for spring plowing.

Bluebirds often build their nests in a hollow tree or post, but are ready to accept the hospitality of any person who will provide them with a suitable bird-house. (Fig. 116)

The eggs are four in number, and of a light blue color.

Because of the joyous spirit of this friendly feathered creature, the bluebird has come to be accepted as the symbol of happiness.

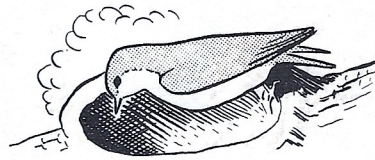


Fig. 116

NOW FOR THE FUN

There is a real thrill in making friends with birds. You might like to build little houses for them (Fig. 117) and have beautiful birds for your nearest neighbors. Or you might like to make a feeding station to attract them to your yard. Especially in the winter, when the ground is covered with snow, birds appreciate food such as suet or bread crumbs. (Fig. 118)

Doubtless your public library can supply you with instructions for making the bird-houses and also the feeding station. Naturally, you will want to have your equipment high above the ground, and constructed in such a way as to protect the birds from cats.

Birds Really Like to Splash In a Bird Bath

Another thing you might like to provide is a bird bath. This can be elaborate or it can be quite simple. After all, a basin of water on a post would serve the purpose. In the heat of summer, birds really appreciate these baths, where they can drink and splash about. (Fig. 119)

Here is another thing you can do which will give you no end of enjoyment. Get you a reliable bird guide--this, too, may be obtained from your public library--and study up on the various kinds of birds in your part of the country. You can then spend many happy hours along country roads, in woods, and in meadows, identifying these birds and observing their habits.

One Ohio boy, walking one day along a river road, recognized correctly 41 different kinds of birds.

Even if you do not live near the open country, you will be surprised at the great variety of birds to be found in city parks.



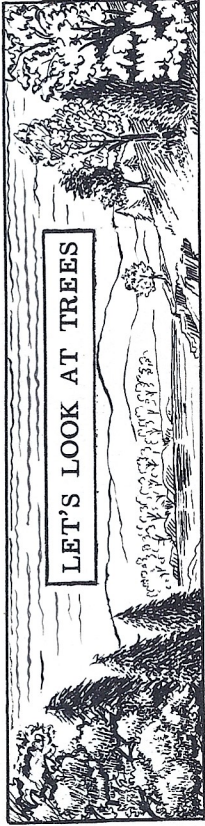
Fig. 117



Fig. 118



Fig. 119



When more than 31,000 children were given their choice as to what they would like to draw, trees ranked third in a list of thirty different subjects.

Trees are the largest plants in existence. You will see trees all your life. The more you know about them, the more you will appreciate them.

Besides the varieties described in this book, you will find the following kinds interesting to study: walnut, hickory, chestnut, poplar, willow, birch, mountain ash, sumac, hawthorn, locust, linden, magnolia, dogwood, laurel, pawpaw, mulberry, sequoia, larch, hemlock, and cypress.

Some cypress trees in Mexico are thought to be six thousand years old. Certain giant redwoods of California are believed to be five thousand years old.

THE PINE TREE IS ALWAYS GREEN

There are six hundred varieties of pine trees. They supply more lumber than any other kind of tree.

The pine also yields oil, pitch, turpentine, and rosin.

The tree pictured here is a white pine, a native of eastern United States and Canada. It has long-stalked cones. The blue-green leaves grow in clusters of five. Because they are so slender and sharp, they are often called pine needles. The cone and tassel are the State emblem of Maine. (Fig. 120)

At one time, the white pine furnished the most important commercial soft wood in America.

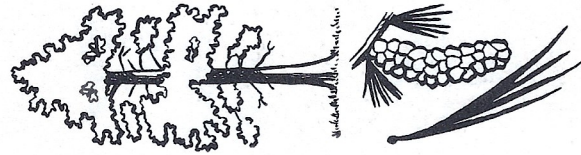


Fig. 120

The dried inner bark is used in the making of certain cough sirups.

THE APPLE TREE IS HOMEY

Perhaps one reason children like the apple tree is that its comparatively low, spreading branches make it easy to climb. Some children even build themselves little platforms among the limbs where they can read story books or play "house." (Fig. 121)

Another reason children like the apple tree is that they like apples. While some fruits, such as oranges and lemons, do not vary a great deal in color, apples present a wide variety of colors. There are bright red ones, green ones, yellow ones. Perhaps the most beautiful ones of all are those that have delicate shades of red on a background of soft yellow. One variety has been given the name of "maiden blush," because of its semblance to the healthy glow of a girl's cheek.

The leaf of the apple tree is shown here. Its shape varies slightly for the different kinds of apple trees.

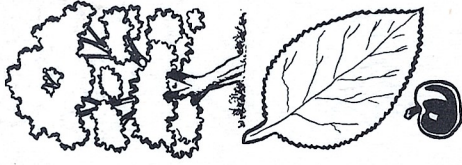


Fig. 121

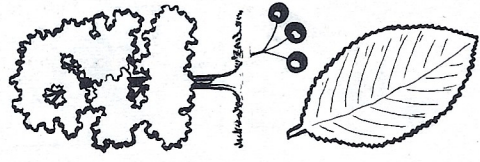


Fig. 122

THE CHERRY TREE IS LOVELY IN SPRING

There are approximately fifty kinds of cherry trees. The cultivated varieties have come from Europe. They are considered to be of two general classifications, depending upon whether their fruit is sweet or sour. (Fig. 122)

The wood of the cherry tree is firm, strong, and close-grained. It is so beautiful that it is frequently used in the making of musical instruments or as a veneer on coarser wood.

Cherry trees in full bloom are a glorious sight. The Japanese especially have fostered an appreciation of the delicate beauty of the cherry blossom.

The leaves of the cherry tree are usually a shiny green on top and a lighter green underneath. All cherries have a smooth pit or seed.

THE MAPLE GIVES SHADE

Because most maple trees grow rapidly and have such luxuriant foliage, they make excellent shade trees. (Fig. 123)

The wood of the maple is light-colored and close-grained. Sometimes it contains spots resembling the eyes of a bird, in which case it is called bird's-eye maple. This kind of wood is quite beautiful. It is frequently sawed very thin and used as a veneer on less desirable wood.

Sugar maples produce the sap from which maple sugar is made.

The leaves of the maple are tapering and graceful. In Japan, it is considered a compliment to tell a woman that she has a hand like a maple leaf.

In the fall, maple trees display brilliantly colored foliage.

Make an autumn maple by coloring this tree a bright red or orange, or red and orange mixed.

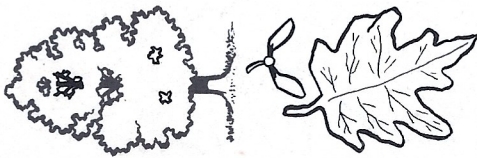


Fig. 123

THE OAK IS KING OF THE FOREST

There are approximately three hundred different kinds of oak trees. The oak is the symbol of strength. It is a very large hardwood tree. Its branches are knotty and twisted from having withstood the elements. (Fig. 124)

In an old woods where most of the other trees have fallen one by one, or else, have died standing, the oak is often the only tree to survive. Little wonder that this gnarled old monarch wears the crown as king of the forest.

The nut, or fruit of the oak, is the acorn. The leaves are lobed in different patterns, depending upon the particular variety of oak.

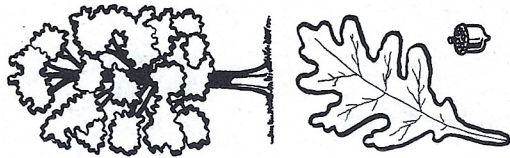


Fig. 124

THE BEECH HAS SMOOTH GRAY BARK

The young beech tree is weak and pale and can scarcely stand alone. But as soon as its spreading roots grip the soil, it begins to stand up and flourish. It may reach a height of 120 feet. Because its lowest branches start so near to the ground, and the other far-spreading branches continue in close formation on up to the top of the tree, the beech is considered one of the most beautiful trees in the forest. (Fig. 125)

Its wood is hard and durable. It is used for chairs, tool handles, etc. Because of its capacity to resist water, beech wood was at one time used extensively in the construction of mills and in the making of wooden shoes for the peasants of northern Europe.

The bark of the beech tree is smooth and of a soft Quaker gray. Beech bark with pictures on it was the first material used to convey messages from one north European tribe to another. That accounts for the fact that our word "book" comes from an ancient word meaning "beech."

The leaves of the beech are feather-veined. The triangular nuts are in a bur and are good to eat.

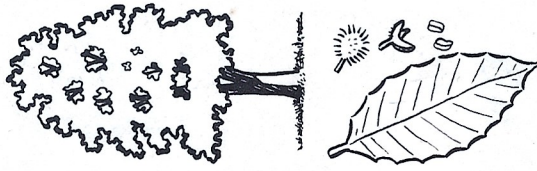


Fig. 125

THE ELM HAS A PECULIAR SHAPE

The trunk of the elm divides into several limbs that separate farther and farther from each other as they approach the top of the tree. This gives the elm the general outline of an inverted cone. (Fig. 126)

The variety known as the slippery elm is so called because the inner bark is slick when moist. It is used in medicine because it is capable of soothing inflamed tissues, or protecting them from irritation. Children like to tear off a little sliver of this inner bark and chew it as gum.

The elm leaf has parallel ribs. The seeds have wings to waft them far from the parent tree.

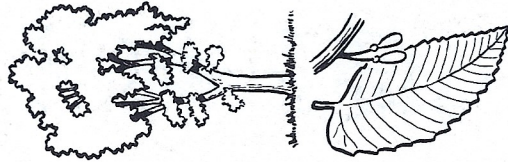


Fig. 126

THE SPRUCE BELONGS TO CHRISTMAS

The spruce is one of the cone-bearing evergreens. In general form, it resembles a pyramid.

The variety known as the Norway spruce, a native of northern Europe, is widely cultivated for its beauty. Its spreading branches, dark foliage, and long pendulous cones made it highly desirable as an ornamental tree. (Fig. 127)

The wood of the spruce is a delight to paper manufacturers because it works easily into pulp. The leaves of the spruce are slender and needle-shaped.



Fig. 127

THINGS TO DO WITH LEAVES

Now that you are familiar with a number of trees, you might like to collect as many different kinds of leaves as you can identify. Press them, singly, by letting them remain between pages under a heavy weight for several days. Then arrange the leaves artistically in a scrapbook. Fasten each leaf securely in place by tiny strips of transparent tape, and write under each leaf the correct name.

Did you know that the outline of a leaf, repeated, makes a decorative border? Try making such a border on, say, a sheet of stationery. Instead of completing the whole outline at a time, draw only a given part of each unit a number of times. Then repeat a certain other part of the unit, and so on. This procedure will enable you to do the work more rapidly. It will also insure a greater uniformity of design. (Fig. 128)



Fig. 128

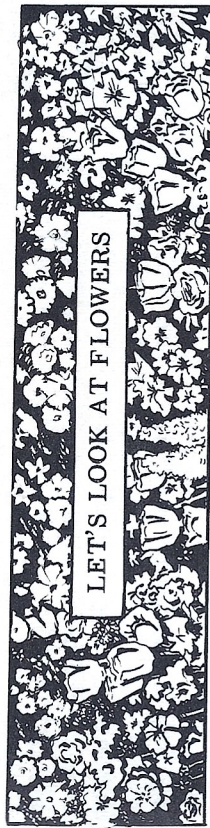
LET'S TRIM THE CHRISTMAS TREE

Cones of the pine or spruce, painted gold, or silver, or some bright color, make beautiful decorations for the Christmas tree. They can also be tied in clusters to a branch of evergreen and used as decorations for a door or window.

LET'S MAKE CHRISTMAS CARDS

Using a bit of plain paper or thin cardboard, you can make real greeting cards by copying the Christmas decorations from the Draw-Master. Or you might like to trace the spruce tree you see on page 40. Draw suitable decorations upon it, and print on either side the words MERRY CHRISTMAS.

Fig. 129



Flowers appear in a great variety of sizes and shapes, and in every conceivable color.

Just as there are guide books to show you how to identify different kinds of birds, so there are guide books to show you how to identify different kinds of flowers.

No matter where you live, there is no limit to the enjoyment you can get from studying flowers and learning all you can about them. (Fig. 130)

If you live in the country, you have a wonderful opportunity for first-hand observation of wild flowers growing in their natural setting, whether in the woods, on the hillside, or along the banks of a flowing brook.

If you live in the city, you can gain a great deal of knowledge, as well as enjoyment, by visiting the parks where flowers are carefully tended, either in the open or in greenhouses.

You might like to plant some flower seeds. A piece of ground no larger than three feet square or, for that matter, a window box, would suffice for a miniature flower garden. Even if you are limited in equipment to one tiny flowerpot, you can still enjoy the thrill of planting seeds and watching them develop into beautiful flowers.

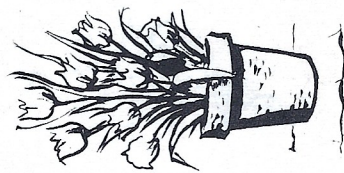


Fig. 130

In any case, you will want to become familiar with the more common varieties such as the lily, the poppy, the daisy, the iris, the tulip, the pansy, the morning glory, the nasturtium, the sunflower, the jack-in-the-pulpit, the buttercup, and the rose.

Let's draw these flowers.

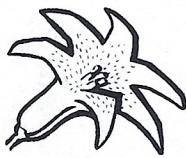


Fig. 131

THE LILY IS GRACEFUL

Most lilies are slender and have long stems. The white lily, frequently called the Madonna lily, is the symbol of purity. It is fragrant and beautiful. (Fig. 131)

Lilies are easily grown from bulbs, and they thrive best in moist soil.

The Canadian, or wild lily, can be found in most parts of the United States and in southern Canada.

The panther, or leopard lily, is a California flower with mottled orange petals.

To make the golden-banded lily, leave the side borders of each petal white, and color the middle strip of each petal a golden yellow.

To represent a Turk's-cap lily, make the petals a little broader and color them anything from a light gray to purple.

To draw a tiger lily, which originally came from Asia, color the petals orange, densely spotted with black.

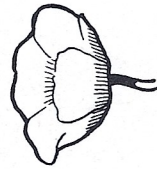


Fig. 132

THE POPPY IS A SHOWY FLOWER

The poppy grows from seeds and is usually of a very bright color. It has been cultivated much in the Far East for the opium it produces. The opium is obtained from incisions made in the unripe seed capsules of the plant. The opium poppy has flowers ranging from white to purple.

To make an Iceland poppy, color the petals a bright yellow. (Fig. 132)

To make the California poppy, which is the State emblem of California, make the flower a beautiful golden color.

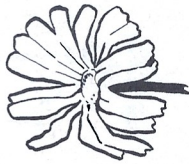


Fig. 133

DAISIES GROW EVERYWHERE

Because daisies grow in such abundance and are difficult to eradicate, they are generally considered as weeds. And yet the daisy is so attractive in appearance that two different States in America have selected it as their State emblem.

The common daisy, frequently called the ox-eye, has a yellow disk-center, surrounded by white petals. This oxeye daisy is the variety that has become the emblem of North Carolina.

Then there is the black-eyed Susan with a dark center, surrounded by deep yellow petals. The black-eyed Susan is the emblem of Maryland.

See if you can draw some daisies, free-hand. Make some of them oxeye daisies, and some of them black-eyed Susans.

THE IRIS IS BEAUTIFUL

There are more than one hundred and sixty kinds of iris. While some of them are white, the usual colors are combinations of blue, yellow, and purple. The leaves are long and slim.

The iris is the national flower of France where it is called the fleur-de-lis.

The American species of iris that grows wild is called the flag. (Fig. 134)

The fragrant rootstock of the iris is called orrisroot. After being pulverized, or made into fine powder, it is used commercially in the making of perfumes and medicines. It is also used as an ingredient of sachet powder.

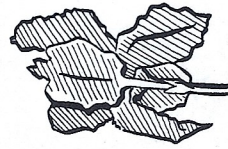


Fig. 134

THE TULIP IS GAILY ATTIRED

Tulips are of the lily family and are usually grown from bulbs. Like the poppy, the tulip is a large, showy flower, with a satin-like texture.

Holland is still the center of tulip cultivation, though bulbs for the market are now also raised in the United States. (Fig. 135)

A typical tulip bed presents a riot of gay colors --red, yellow, rose, orange, scarlet and purple.

You can make a pretty picture by drawing a cluster of gaily colored tulips. Make sure that your brightest color appears more than once and that the stems are of different lengths.

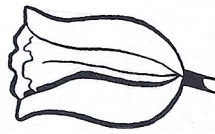


Fig. 135

“PANSIES ARE FOR THOUGHTS”

The word pansy comes from the French word *penser*, meaning to think. Perhaps this accounts for the old idea that the giving of this little flower signifies that the giver frequently thinks of the person to whom it is given. (Fig. 136)

The pansy is really a kind of violet. It has been given odd names, such as heartsease, love-in-bloom, Johnny-jump-up, lady's delight, and cuddle-me-to-you. It is grown from seed and needs rich soil.

Pansies have a rich, velvety appearance. Although they vary in color, they are frequently characterized by a bright yellow and a deep purple.



Fig. 136

THE MORNING-GLORY IS A TWINING VINE

The petals of the morning-glory are joined together in such a way as to form a beautiful trumpet-shaped flower. The delicate tendrils of this twining plant grasp a post or a tree trunk and continue twisting and climbing until the whole surface of the supporting object is covered with

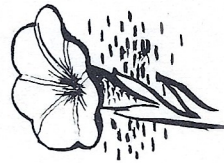


Fig. 137

foliage interspersed with lovely blue, pink, or purple blossoms. This really is a glorious sight in the morning sun. (Fig. 137)

The reason this flower is called the morning-glory is that only during the morning are the blossoms wide open. As if their exquisite color were too delicate to long withstand the bright heat of the sun, the edges of each blossom curl in toward the center and there slumber, as it were, until the following morning when the blossoms again awaken in all their glory.

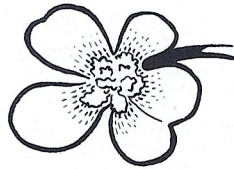


Fig. 138

THE NASTURTIUM IS LIKE A BURST OF SUNLIGHT

This bright, showy, spurred flower comes in varying shades of red and yellow. One would scarcely believe that so beautiful a flower could have such a sharply penetrating scent. The very word *nasturtium* means nose-twister. This smooth herb belongs to the mustard family. The juice is pungent and biting. The seeds and flower buds are used in salads and pickles. (Fig. 138)

THE SUNFLOWER IS A GIANT

The sunflower is the largest of all composite flowers. It has been known in some regions to attain a height of twenty feet, with the flower itself measuring from one to two feet in diameter.

Perhaps the name sunflower was suggested by the form and color of the large yellow-rayed flower head. At any rate, it is a mistaken idea that the sunflower always turns its face to the sun. (Fig. 139)

Years ago the American Indian cultivated this plant because he was able to get fodder from the leaves, fiber from the stalks for making cloth, yellow dye from the flowers, and food and hair-oil from the seeds.

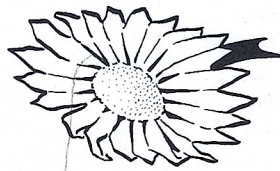


Fig. 139

Even today, oil from sunflower seed is sometimes used in the manufacture of paints and varnishes. Birds are especially fond of the seeds.

The sunflower is the State flower of Kansas.

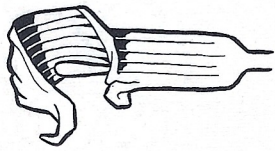


Fig. 140

HAVE YOU SEEN JACK-IN-THE-PULPIT?

The spring-flowering, woodland herb called jack-in-the-pulpit is exceedingly picturesque. With the exercise of a little imagination, the tiny club-like center with its over-arching petal can be thought to resemble a little preacher standing upright in his quaint, circular pulpit. The over-hanging canopy above him is called by some children his sounding board. (Fig. 140)

The flower is a greenish yellow, lined and veined with stripes of purple running lengthwise of the curled-over top.

In reality, this unusual plant is what was once known as the Indian turnip. It grows from a flattish, turnip-shaped root, the juice of which is acid and biting.

The fruit of this herb is a mass of scarlet berries which is left on the stem after the flower falls away in the summer.

THE BUTTERCUP IS DAINTY

The buttercup is a little cup-shaped flower, having five uniform petals of deep yellow. It is abundant in pastures and meadows, and adds a touch of beauty to the fields. It is sometimes called goldcup. It measures only about one inch across the top. (Fig. 141)

The deep, rich yellow of this dainty flower is of such high brilliance as to be recognized wherever it is seen as buttercup yellow.

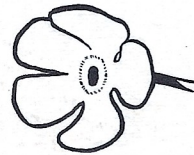


Fig. 141

THE ROSE IS UNIVERSALLY ADMIRERD

The wild rose grows in almost any kind of soil and is very hardy. It is found throughout the central part of the United States. The flower is pink in color and has five petals. The wild rose has been adopted as the State flower of New York, North Carolina, and Iowa.

Cultivated varieties of the rose have been derived from repeated hybridization of about thirty wild species. There are now more than four thousand cultivated varieties. These are divided according to habit or culture into more than forty classes as, for example, the climbing rose, tea rose, and so on. (Fig. 142)

Generally speaking, roses have prickly stems. The rose is a fragrant flower and very colorful. The colors include red, pink, white, and yellow, but never blue.

The cultivated rose is the floral emblem of England.

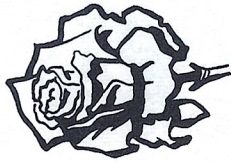


Fig. 142

THINGS TO DO WITH FLOWERS

Now that you are familiar with a number of different flowers, you might like to do with flowers what you did with leaves. Collect as many different kinds as you can identify, then press them, mount them in a scrapbook and write under each one its correct name.

When you draw the picture of a flower, include with it a picture of one or more typical leaves.

LET'S MAKE A GIFT

Colored pictures of flowers are often used in making of personal gifts.

Would you like to make a pretty bookmark for your mother? Simply cut off the corner of an envelope, as shown in the illustration. Then draw or trace on it your favorite flower and color it carefully. (Fig. 143)



Fig. 143

Your mother will love to have this useful little gift. She will think of you every time she slips it over the corner of a page to keep her place in the book she is reading.

Or you might like to make a doily. Take a piece of plain cotton material. Select a pretty flower, trace it either in the center of the material or in each corner. Color it neatly with crayons. Place five or six thicknesses of newspaper on the ironing board. Lay the material, right side down, on the paper. Place a piece of brown paper on top of the material and press carefully with a warm iron. The heat will cause the crayon to melt into the fabric so that the color will not wash out. A little practice will show you just how to do this. Do not put too heavy a coating of crayon on the material, and do not use too hot an iron, or the crayon may run out of bounds. (Fig. 144)



Fig. 144

blossoms are white and the leaves are three on a stem. The seeds are on the outside of the berry, partially imbedded in the delicious and fragrant fruit.

THE APRICOT RIPENS EARLY

The word apricot is derived from the same ancient source as our word precocious, and means "early ripe."

Although the apricot is of the peach family, the zest in its flavor is suggestive of the plum as well as of the peach.

The velvety skin of the apricot is a rich golden color. (Fig. 146)

This fruit has a single, smooth seed.

Most children are fond of dried apricots.



Fig. 146

THE CHERRY IS SMOOTH AND GLOSSY

Cherries vary in color from almost black through shades of red to yellow. (Fig. 147)

Because of the legend about the boy George Washington and the cherry tree, the bright red cherry has become the colorful symbol of Washington's birthday.

You might like to draw some cherries and color them for use as party invitations or as place cards at a party table.



Fig. 147

ORANGES ARE HEALTHFUL

Because oranges contain health-giving vitamins, they are desirable as a part of one's daily diet. The juice of the orange is even fed to babies.

The orange tree is an evergreen that grows in warmer climates. It attains to an age of 100 to 150 years, and produces from 3,000 to 4,000 oranges annually. (Fig. 148)

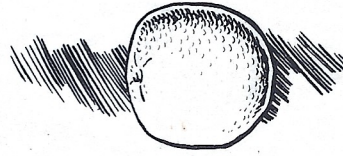


Fig. 148

It is a marvel of nature that different kinds of plants may grow near one another, live on the same soil, absorb the same sun and water, and yet produce such entirely different kinds of fruit.

STRAWBERRIES HAVE THEIR SEEDS OUTSIDE

Strawberries probably received their name from the fact that they were frequently found under the mown grass. Strawberry plants are low-lying herbs with long slender runners. The

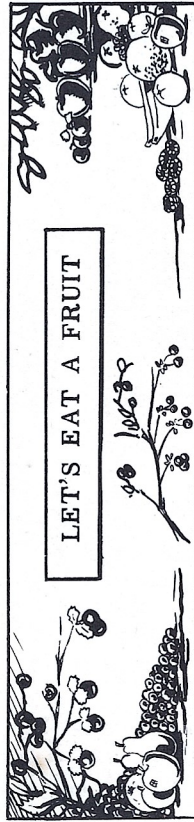


Fig. 145

The flower is white, fragrant, and of wax-like texture. In fact, the orange blossom is so beautiful and has been used so frequently at weddings, that it has come to be a symbol of marriage.

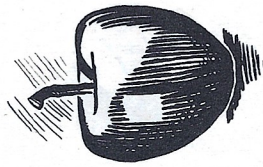


Fig. 149

THE APPLE IS OF MANY VARIETIES

The apple is the principal fruit of the temperate zones.

There are all kinds of apples--big ones, little ones, sour ones, sweet ones, juicy ones, mellow ones. They range in color from yellow and green through deep red. (Fig. 149)

In the fall of the year, apples are frequently crushed in great numbers and their juice used as a drink called cider. This refreshing liquid has become the customary beverage at Halloween parties. The tang of the cider goes well with sweet doughnuts.

One day a teacher held up a big red apple and said, "I'll give this to the boy or girl who can tell me how many seed pockets are in the core and which way the seeds point."

Not one child knew. Would you know? Could you have won the apple?

It has five seed pockets and the seeds always point toward the stem.

THE PEACH IS VELVETY

The color that characterizes the peach is a delicate tint of yellow blended with shades of pink and red. (Fig. 150)

The white or yellow flesh of the peach is sweet and juicy.

The popular classification of peaches into free-stones or clingstones, depending upon whether or not the flesh adheres tightly to the seed, is

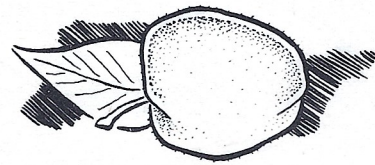


Fig. 150

misleading. These two classes merge in different varieties, and even the same variety may be either freestone or clingstone in different seasons.

DO YOU LIKE BANANAS?

The banana is a tropical plant. When full-grown, the stem attains a height of 10 to 40 feet and is surmounted by a crown of large leaves 6 to 10 feet long and 2 to 3 feet broad. The flowers spring in great spikes from the center of the crown of leaves. (Fig. 151)

Bananas grow in bunches that weigh from 25 to 40 pounds. These clusters grow with the fruit pointing upward--just the opposite of the way they are hung in the grocery store.

Bananas are gathered green and allowed to ripen while they are being shipped.

PLUMS VARY IN COLOR

The plum differs from the cherry by its larger size and oblong seed, and from the peach, by its smooth skin and unwrinkled stone. (Fig. 152)

Certain varieties of the plum are called prunes when they can be dried without fermentation even though the seed is not removed from the fruit.

One of the most popular varieties of the plum is the damson, a small dark purple plum. The damson derives its name from the ancient Syrian city of Damascus from which it originally came.

The greengage plum was named for Sir William Gage of Suffolk, England, who imported it from France in 1725.

To represent a damson plum, color it red over dark blue.

To make a greengage plum, color it first yellow, then give it a light coat of green.

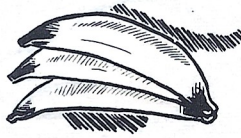


Fig. 151

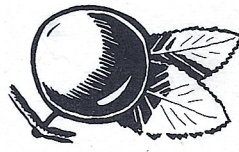


Fig. 152

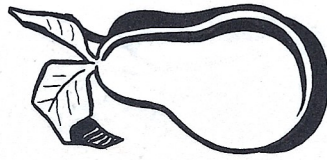


Fig. 153

THE PEAR HAS A PECULIAR SHAPE

The American pear is oblong with the lower portion larger than the upper part nearest the stem. Other objects having a similar contour are said to be pear-shaped. (Fig. 153)

The pear, like the apple, has a remnant of the blossom at the base of the fruit.

The next time you see a pear, look for these little leaves, on what is called the blossom end of the pear.

HAVE YOU EVER PICKED BLACKBERRIES?

What we usually call one blackberry is really a cluster of berries, each tiny globule containing its own seed. (Fig. 154)

Blackberries are either wild or cultivated. The one pictured here is a wild blackberry.

Cultivated blackberries are larger than the wild ones.

Low-trailing varieties are called dewberries.



Fig. 154

RASPBERRIES HAVE A DELICATE FLAVOR

One raspberry, like one blackberry, is a collection of little berries that cling together.

The raspberry is usually rounder and smaller than the blackberry, and does not adhere so tightly to the stem. (Fig. 155)

To pick a raspberry is a little like slipping a tiny knitted cap off the small head that remains on the bush.

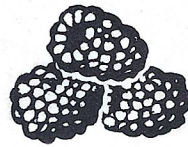


Fig. 155



Fig. 156

THE GRAPE HAS LONG BEEN CULTIVATED

Grapes are found on every continent. They have been cultivated from earliest times.

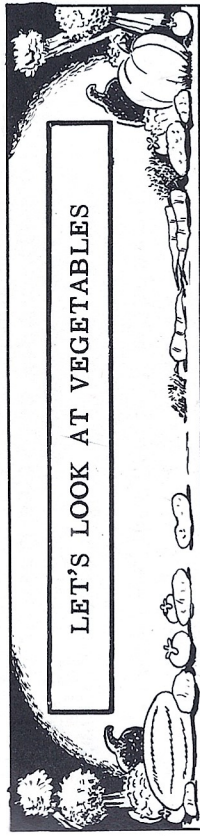
In color, the grape ranges from green or white to deep red, purple, or black. (Fig. 156)

Some varieties of grapes, when dried, are known as raisins.

THINGS TO DO WITH FRUITS

Sometime when your mother has several kinds of fruit on hand, you might like to combine them in such a way as to make an attractive centerpiece for the dining table. (Fig. 157)

Fig. 157



THE POTATO FOR STARCH

Next to the principal cereals, the potato is the most valuable of all plants for human food.

The word potato is derived from batata, the native name in Haiti for the sweet potato.

The Irish potato is so-called not because it originated in Ireland, but because it is a favorite food of the Irish people.

The potato grows underground and is really the tuberous root of the plant. (Fig. 158)

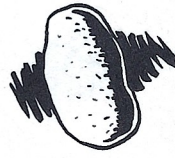


Fig. 158

THE TOMATO FOR VITAMIN C

While the tomato was formerly called the love apple and thought to be poisonous, it is now widely cultivated in all temperate regions and considered one of the most wholesome garden vegetables. (Fig. 159)

The tomato is the source of vitamin C which helps to prevent colds.



Fig. 159

So, let's plant a garden. One of the first things you will want to do is to find out what kinds of vegetables you would like to grow. To determine this, you may wish to look through a seed catalogue. This will probably show colored pictures of the way different vegetables will look when they are ready to be gathered.

In the spring, your local grocer or hardware dealer may be able to supply you not only with seeds but with printed folders telling just how to prepare the ground for certain common vegetables, how far apart to place the seeds, and how deep to plant them.

You will find that the tending of a garden on a beautiful spring morning will be both invigorating and enjoyable. Best of all, think how delicious those vegetables fresh from your own garden will taste!



Fig. 166



Fig. 167

LET'S MAKE POT HOLDERS

Your mother probably likes to use padded holders with which to handle hot things in the kitchen. You can make her a useful holder by copying a vegetable from the Draw-Master on a piece of cloth. (Fig. 167) Make this copy about six inches wide. It will look very realistic if the color of the fabric is the same as that of the vegetable, for example, tan or brown for potato, red for tomato or apple.

Make two pieces alike, one for the top and one for the bottom of the holder.

Cut a piece of blanket or other padding for the inside. Cut this padding the shape of the pot holder cover -- only make it a little smaller.

Turn the edges of the top material neatly around the padding and stitch carefully.

Pin the other piece of colored material to the other side of the padding and stitch all together.

You can attach a little hanger of cord to the holder so Mother can hang it up in a convenient place. (Fig. 168)

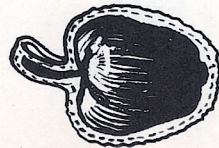


Fig. 168