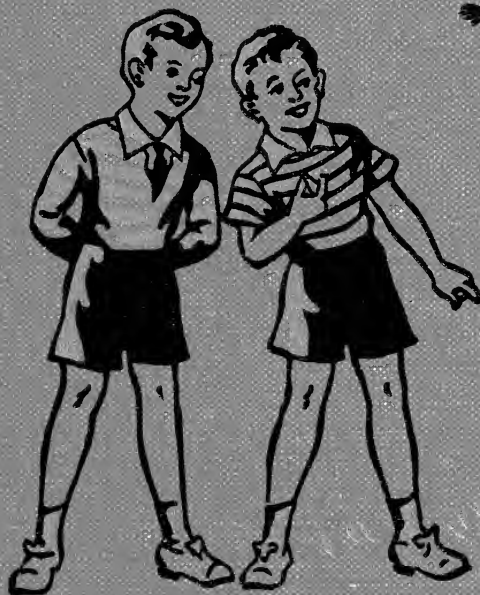




# ADVENTURES IN SCIENCE

WITH  
BOB  
AND  
DON







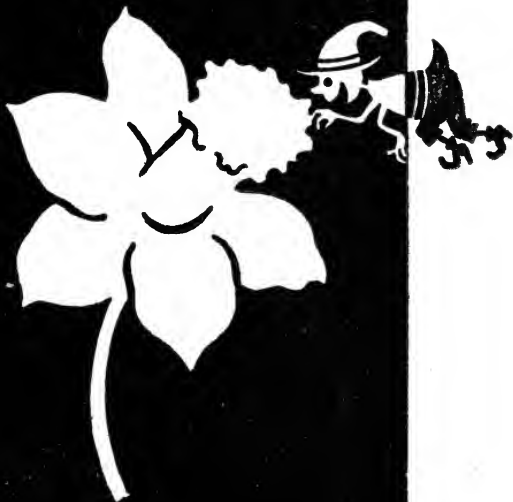


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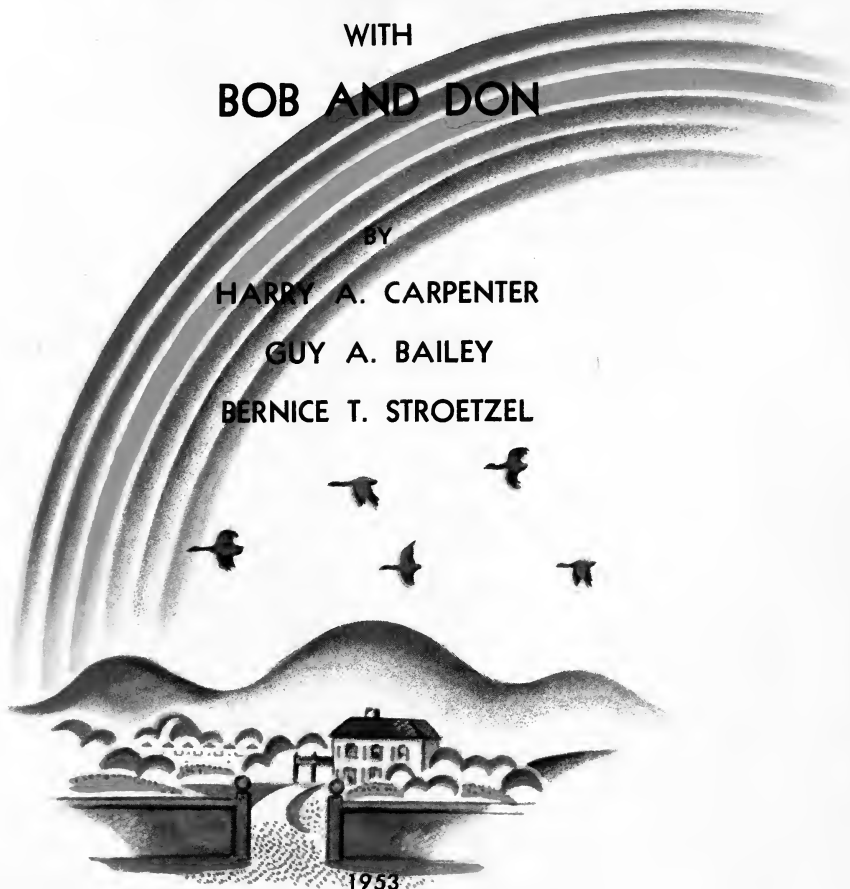
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THE RAINBOW READERS

II ORANGE II

# Adventures in Science

WITH  
BOB AND DON

BY  
HARRY A. CARPENTER  
GUY A. BAILEY  
BERNICE T. STROETZEL



ALLYN AND BACON

BOSTON NEW YORK CHICAGO  
ATLANTA SAN FRANCISCO DALLAS

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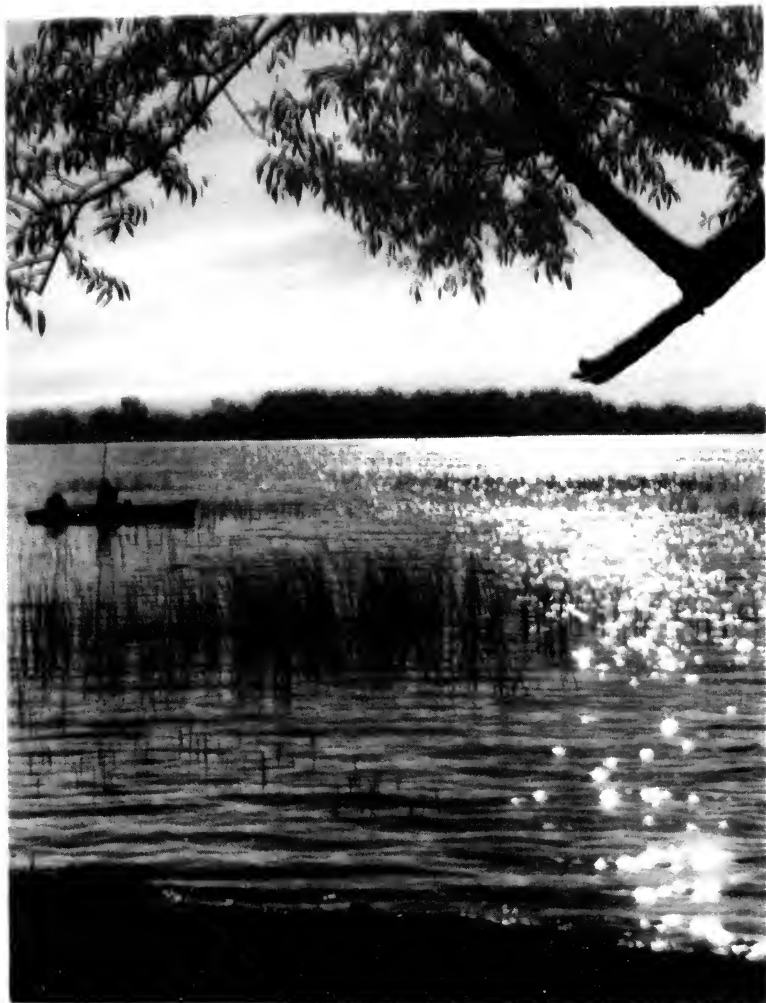
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## Happy Adventures

Have you been to a lake? Have you fed a squirrel? Have you watched birds? Have you given them a Christmas tree?

Bob and Don have done all these things. They have had other happy adventures, too.

Would you like to meet Bob and Don? Would you like to know more about their adventures? Then read this book.

You can have a happy time reading. You can have adventures of your own.

Bob and Don will help you.





## Don and Bob

Bob and Don were at the lake. The sun was not up. But Bob and Don were wide awake. They sat up in bed.

“Summer is almost over,” said Bob. “This is our last day at the lake.”

“Yes,” said Don. “But it is the day we visit Uncle David. I wish Mother would call us.”

Just then they heard a noise.

“What was that noise?” asked Bob. “Can you see anything, Don?”





## Thrifty

“ Oh,” laughed Don, “ it’s Thrifty.”

Thrifty, their pet gray squirrel, was eating his breakfast. Some birds wanted Thrifty’s food. Each time they flew near the feeding place, Thrifty made a funny noise.

“ Why do you think Uncle David named our squirrel Thrifty ? ” asked Don.

“ Because he saves food,” said Bob.

Just then Mother called, “ Come, boys! Breakfast is ready! ”





## Sunrise

After breakfast Father and the boys went down to the boat.

“The sun looks like fire, coming out of the earth,” said Bob.

“Yes. That is because it is so low in the sky. It looks like that at sunset, too,” said Father.

“Here at the lake the sun always rises over the East Shore,” said Don.

“Yes,” Father said. “The sun always rises in the east and sets in the west.”





## Away We Row

“Here is Mother,” said Don. “Now we can go. I have the oars.”

“I think those oars are pretty big for you,” Mother said.

“Oh, I’m a big boy!” said Don.

“I will row,” laughed Father. “We must get started. The sun is almost up. Soon it will be too warm to row.”

“Away we row! Away we row!

To Uncle David’s house we go!”

sang Bob as they started off.





## Oars and Fish Tails

Bob and Don watched Father row.  
“The oars push against the water,”  
said Don.

“Yes,” Father said. “That is what  
makes the boat move.”

All at once Bob shouted, “I can see  
fish swimming—down near the bottom.”

“I see them, too,” Don said. “How  
fast they swim!”

“Yes,” said Father. “Their tails  
push them through the water.”







## Water Lilies

The boat neared the East Shore.

“Oh, look! See the water lilies!”  
cried Don.

“Water lilies! Where?” asked Bob.

“I’ll row nearer to them. Then you  
can see them better,” said Father.

“What big blossoms!” Don said.

“Yes,” said Bob, “and what big  
leaves—big as pie plates.”

“Water lilies are water plants,”  
said Mother.





## Sailboat

“ A sailboat! I see a sailboat!”  
shouted Bob. “ It is coming our way.”

“ That is a fine sailboat,” said  
Father. “ Look at its sails.”

“ Our toy sailboat didn’t sail as fast  
as that,” Don said.

“ Do you know why? ” asked Father.

“ Our boat had smaller sails. Was  
that the reason? ” asked Bob.

“ That was one reason,” Father said.  
“ You may discover another soon.”



## Hunting the Wind

“There is no wind now. Where do you think the wind is, Father?” asked Don.

“Try to discover that for yourself,” said Father. “Watch the trees bend.”

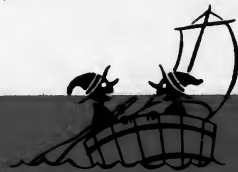
The boys looked around. They saw trees bending. They saw little waves out on the lake. They saw the sailboat moving along over the lake.

“The wind bends the trees and makes waves on the lake,” said Bob. “But we don’t feel it.”

“What is the reason we don’t feel it?” asked Father.

“What is the reason?” asked Don.

“I know,” Bob said. “We are so close to the shore that the trees keep the wind from blowing on us. That’s why our boat didn’t sail.”





## Uncle David

"There is Uncle David! He is waiting for us," Don shouted.

"Yes," said Mother. "But he doesn't see us. He's watching the sailboat."

"The sun is shining on Uncle David," Bob said. "It is shining on me, too!"

"Hello, Uncle David!" called Don. "Here we are. Here we are."

Uncle David turned around quickly.

"Hello," he answered. "Aunt Mary and I have been waiting for you."



### **Try to —**

Wake up early some morning to watch the sun rise.

Make a sailboat and sail it.

Find some water plants and animals.

### **Tell —**

What the sun gives us.

Where fish live.

Where water plants live.

How oars help to make a boat move.

What pushes a fish through water.

What wind does to trees.

What wind does to water.

What wind does to sailboats.



## At Uncle David's

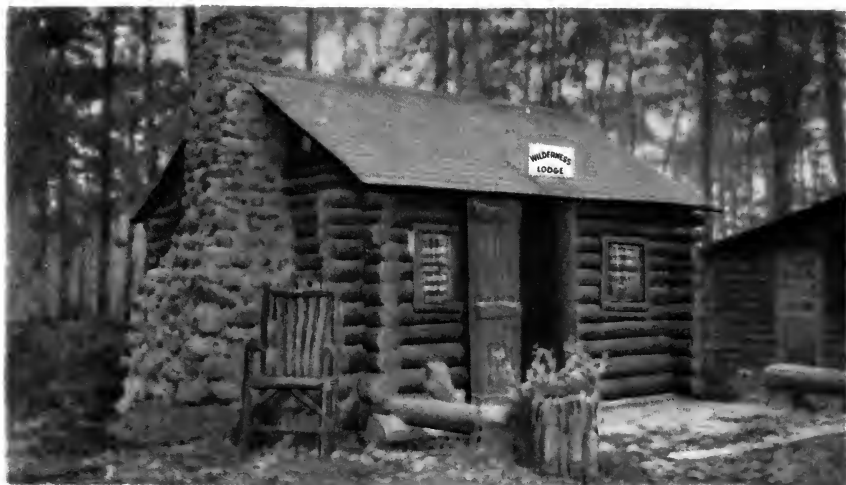
"Hello, everybody, hello! Come up on the porch," called Aunt Mary. "The sun is warm, but the porch is cool. It is a fine place to visit."

"Yes," said Mother. "We shall sit on the porch and visit."

Uncle David laughed. "Very well," he said, "but the men are coming with me. We are going to the woods. How about it, boys?"

"Yes, yes," they answered.





## Log Cabin

“All right, then, let’s go,” said Uncle David. “I want to show you my log cabin in the woods.”

The boys ran on ahead. Each wanted to see the log cabin first.

“What a fine log cabin!” said Don, when Uncle David got there. “When are you going to live in it?”

“This autumn and winter,” answered Uncle David. “This is where we shall stay when you come to see me again.”





## Stumps for Seats

“Come along, boys. You have seen enough of the cabin now. Let’s walk into the woods,” said Uncle David.

Soon they came to some tree stumps.

“Here is a good place to rest,” said Uncle David. “This stump makes a fine seat.”

“How about a story?” asked Don.

“All right,” laughed Uncle David. “I’ll tell about a deer that comes to visit my neighbor.”







## Uncle David's Story

"Last year a deer broke one of her legs. My neighbor found her and cared for her until she was well. Then he let her go.

"In the winter, the deer stayed in the woods. My neighbor put out hay for her to eat."

"Is that all she ate?" asked Don.

"She found moss under the snow," said Uncle David. "She ate young twigs, and the bark of young trees."



## Winter Coats

“ Hay, moss, young twigs, and bark! What funny food! ” Don said. “ Old twigs and old bark would not do at all, would they? ”

“ No, ” answered Uncle David. “ Both twigs and bark must be young. ”

Then Bob asked, “ How did the deer keep warm? ”

“ Oh, I know the answer, ” Don said. “ The deer has a much heavier coat in the winter than in the summer. ”

“ Don is right, ” said Uncle David. “ A deer’s coat is always much heavier in winter than in summer. The coats of many animals are heavier in winter. ”

“ What makes their coats heavier? ” asked Don.

“ Good food in summer, ” said Father, “ helps grow heavy coats for winter. ”





## Baby Deer

Then Uncle David went on. "This spring the deer came back again. A fawn ran along by her side.

"The mother deer took good care of her baby. She washed it every day.

"The fawn had rows of white spots on its back. The spots made it hard to see the fawn in the woods."

"Oh, Uncle David," Bob said, "I wish we could see the deer and fawn."

"We may," said Uncle David.





## Fawn's Mealtime

“The deer and her fawn often come near my neighbor's cottage. Let's go that way.”

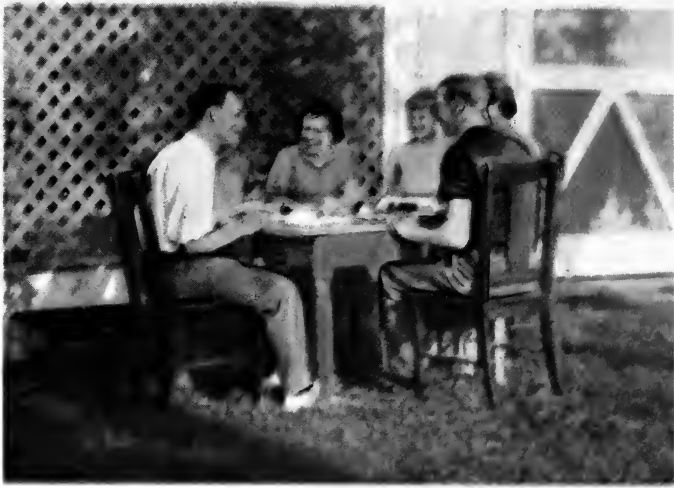
They walked on and on until they came to the cottage.

“There they are,” said Uncle David. “The fawn is standing near its mother.”

As the boys watched, the fawn began to drink milk from its mother.

The boys watched the deer until it was time to go back to the cottage.





## Outdoor Lunch

Aunt Mary and Mother had lunch ready when the boys got back.

The table was outdoors and on it were many good things to eat — salad, fruit, bread, milk, and cookies.

“Outdoors! We eat outdoors!” cried Bob. “Just what we wanted!”

“Yes,” Don said, “and I’m hungry.”

Uncle David looked at the salad.

“Oh!” he said. “Salad! A rabbit’s lunch — roots, leaves, and fruit.”



## Joke

“ Why, David! What a thing to say! ” cried Aunt Mary.

Bob and Don looked at each other. They looked at Father.

“ Uncle David is right, ” he said.

“ It is rabbit’s food. The salad is made of roots, leaves, and fruit. You will soon be eating the roots of a carrot. And the leaves of a lettuce plant. And the fruit of an apple tree. ”

“ What a way to speak of a salad! ” said Mother. “ Salads are often made of roots, leaves, and fruit. But how funny to call a salad rabbit’s food! ”

“ Yes, ” said Uncle David, “ but what is good for rabbits is good for us. Rabbits can not have this salad. May I have some now, please? ”

And then everybody laughed.





## Chipmunk

After lunch the boys ran to a field not far away.

“Look!” said Don. “There is a little chipmunk. See! On that stump. No, he’s gone. He saw us.”

“Well, let’s find him,” said Bob.

They looked around. Don found a hole in the ground near the stump.

“Here, Bob,” he said, “see this hole. It is the chipmunk’s home. But listen! What is that funny noise?”





## Woodpecker

The noise the boys heard sounded like a hammer.

"It came from that tree over there," Bob said. "Let's go over there."

"It's a woodpecker!" said Don.

The woodpecker had a red head. It had a bill that was long and pointed.

Tap-tap-tap went the woodpecker.

"It is getting insects from the bark," said Bob. "Woodpeckers eat insects. Come on, let's go to the shore, Don."







## Sandpiper

As the boys came out of the woods,  
Uncle David called from the shore,  
“Come here, boys! See what I see!”

He pointed to a little bird near by.  
“It is a sandpiper,” he said. “He often  
walks near me. See his thin legs.”

“Sandpiper, Sandpiper,  
With legs so very thin,  
Run with us! Race with us!  
See who will win!”

sang Bob as they raced off.



## Day's End

Supper was over. Bob and Don were sleepy. Father looked at them.

"Come, boys," he said. "Let's go."

They all walked down to the boat. The boys got in last. Uncle David gave the boat a push.

"Good-by, good-by," he called.

Away went the boat over the quiet lake. An owl looked down at them.

"Who — who are you?" went the owl, as they moved from the shore.

"Croak, croak," called a frog from the lily leaves. "Croak, croak."

"Splash — creak! Splash — creak! Splash — creak!" went the oars.

Soon they reached home and bed.

The moon rose over the East Shore, but the boys did not see it. They were fast asleep.



## A Class Play

Ask your teacher if you may have a play of your own.

You can paint a woods for the play.

You can make believe that you are chipmunks, sandpipers, owls, or other animals of the forest.

Someone will want to be the frog who says, "Croak, croak," or the owl who goes, "Who — who are you?"

You can make many forest sounds.

You can have animals get food.

You can show how animals live.

You can show how a good friend helped a deer with a broken leg.

You can do other things, too.

You will have a busy time!



## Helpers

Early the next morning Mother said, "Vacation is over. We must get ready to go back to town. Who will help?"

"We will," answered the boys.

The boys helped do many things. Soon their work was done.

"Thank you, boys," Mother said. "Now you may play until we leave."

"We'll go to the lake," said Don. "We want to get some water plants and snails for our Discovery Table."





## Water Animals

Bob had a pail, and Don had a net. They put sand and water in the pail.

They found some snails, some shells, and some water plants.

The holes in the net were pretty big, but at last Don caught a small fish.

“Now,” he said, “we have a fish, some snails, shells, and plants.”

Just then something bit Bob’s toe.

“Oh!” he cried. “See what I’ve caught! A crayfish! A crayfish!”





## Mr. Crayfish

The boys put the crayfish in their pail and ran to get dressed.

"Mr. Crayfish will be fine for the Discovery Table," said Don.

"Yes, he will," Bob said. "How the boys and girls will laugh tomorrow when I tell them how I caught him."

They both laughed as Bob sang,

"Mr. Crayfish got my toe.  
I am glad he let it go,  
Let it go, let it go!"





## Vacation Stories

Bob and Don were back at school.  
What fun it was to see all their  
friends again!

Everyone wanted to talk at once!  
Then Miss King, the teacher, said,  
“Bring your chairs closer together.  
I want to hear about your vacations.  
I want to know where you have been.  
I want to know what you have seen.”

Each child had something to tell.  
Many children had things to show.



## Showing Discoveries

Bob showed the crayfish and shells. He told how he caught the crayfish.

“I caught him on my toe,” he said. “I knew I caught him, for he bit me!”

How the children laughed!

Don held up the pail with the fish, snails, plants, sand, and water in it.

Then Miss King asked, “Where shall we keep the fish and snails?”

“Why can’t they live in the pail?” asked Bob.

“Why not?” asked Miss King.

“The pail is too small,” said Nancy.

“It is too dark,” said another.

“The large glass dish on the table might do,” said Anne. “May we use it?”

“Of course you may,” Miss King said. “The glass dish is just the thing!”







## Glass Home

The children cleaned the glass dish.

“I will put sand on the bottom,”  
said Anne.

“I will put in some clean, fresh  
water,” said Bob.

“I will put in the shells and snails  
and Mr. Crayfish,” said Nancy.

“And I will put in the water plants,”  
said Jane.

Every child did something to make  
the new home for the fish and snails.



## Aquarium

The fish and snails seemed to like their new home.

Some snails crawled on the shells. Some crawled into the corners.

The fish swam here. He swam there, in and out, and all about.

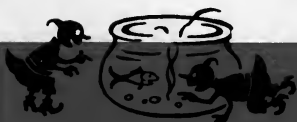
The plants seemed glad to have some light again. How green and fresh they looked in the clean water! How pretty they were!

“Who knows what we should call the glass dish now?” asked Miss King.

“A Discovery Dish,” said Jane.

“Aquarium,” Jim said. “I know it is an aquarium. We have one at our house.”

“Aquarium is right,” said Miss King. “But Discovery Dish is a fine name, too, Jane.”





## New Things

The children were happy in school.  
Every day new things happened.

Sometimes there was a new story.

Sometimes there was something new  
for the Discovery Table.

Sometimes the aquarium needed  
fresh water.

Sometimes there were baby snails.

What fun it was to watch the baby  
snails crawl up and down the sides of  
the aquarium.



## Frog

One day Bob brought a frog to school.

“Let’s make a home for the frog,” said Frank.

“No, let’s put him in the water with the fish and snails,” said Nancy.

“We must ask Miss King about that,” Frank said. “I don’t think frogs like to live in water all the time.”

“You are right, Frank,” said Miss King. “The frog must have a home of its own. It likes to swim, but it does not like to be in the water all the time. It has to have its head out of water when it needs air.”

“Then we will begin to make the frog a home now,” said Emma. “We can use a large glass dish like the aquarium. We can put wet soil and plants in it.”





## Terrarium

When the home for the frog was ready, Miss King said, "Children, you have made a terrarium."

The children had never heard the word "terrarium." It had a nice sound.

"'Terrarium' sounds like 'aquarium,'" said Nancy.

"A terrarium is a home for things that live on land. An aquarium is a home for things that live in the water," said Emma. "I like those names."



## Caring for Animals

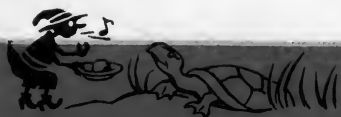
“I’ll feed the frog,” said Don. “I will bring it flies and other insects. I know what frogs like to eat.”

“I know something about frogs, too,” said Nancy. “Frogs disappear every autumn. So do toads. Our toad, Hoppy, disappeared last autumn. This is how he did it. He dug a hole deep in the sand and stayed there all winter. When it was warm in the spring, he came out again. We were glad to see him.”

“Yes,” said Miss King. “Frogs and toads disappear in winter.”

“Turtles disappear, too,” said Don. “We had one last year.”

“I’ll find a turtle and bring it to school,” said Bob. “We can put it in the terrarium with the frog.”



## **Make —**

A net to catch fish.

An aquarium.

A terrarium.

## **Get —**

Some plants for your aquarium.

Some plants for your terrarium.

Some pretty stones for both of your  
Discovery Dishes.

Some animals for both. Remember  
insects are animals.

## **Give —**

The plants and animals all the  
food, water, and sunshine they need.

## **Watch —**

Every day to see what happens in  
your Discovery Dishes.



## On the Way

Once more the boys were on their way to Uncle David's. He was all alone. Father and the boys would keep him company.

They left the car near a corn field, and walked across the field. As they walked along, the boys played Indian.

All at once, they heard Father call, "Come on, boys. I see Uncle David."

"Hello, hello!" cried Uncle David. "Just in time for a good walk!"







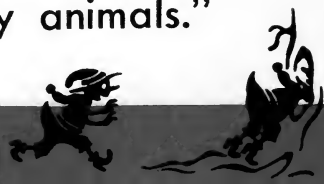
## Tree Home

“Jack Frost hasn’t been here yet,” said Don, as they walked along. “The leaves are still green.”

“Oh!” cried Bob. “Look at that big, old tree! See the squirrel peeping out of the hole in the trunk!”

“Why is it there?” asked Don. “Does it have babies in there?”

“It may have, or it may want to get away from the hot sun,” said Father. “Trees are homes for many animals.”





## Cottonwood Tree

“Let’s see how many kinds of trees we can find,” said Bob. “Here is one. What kind is it, Father?”

“That is a cottonwood tree. There are different kinds of cottonwood trees,” said Father. “That one has rough bark.”

“Yes, it feels rough,” answered Bob.

“Leaves help us to know trees, too,” said Uncle David. “Look at the leaves of this tree. They are big and green.”





## Sycamore Tree

“Here is a tree with light and dark spots on it,” called Don. “It has spots like those on the baby fawn. What kind is it, Father?”

“Some people call it a sycamore,” said Father. “Some call it a plane tree. Its bark is different from the bark on the cottonwood tree.”

“Its leaves are different, too. They are rounder and brighter,” said Bob.

“That’s right,” said Father.





## Needles

“ This pine tree has long, thin needles and big, brown cones,” said Bob, “ but where are its leaves? ”

“ I can answer that,” said Don. “ The leaves of a pine tree look like needles and are often called needles. The long needles you are looking at are the leaves of the pine tree.”

Uncle David and Father laughed.

“ Don is right,” said Uncle David.  
“ Pine leaves are often called needles.”



## Hemlock

“I’ll know another time,” said Don.  
“Let’s look for more trees with needles.”

Soon he called, “I’ve found one!  
Its needles are short. The needles on  
the pine tree are long.”

“It is a hemlock,” said Uncle David.  
“Hemlock and pine trees are called  
evergreen trees. If you watch closely,  
you will discover still other kinds of  
evergreen trees.”

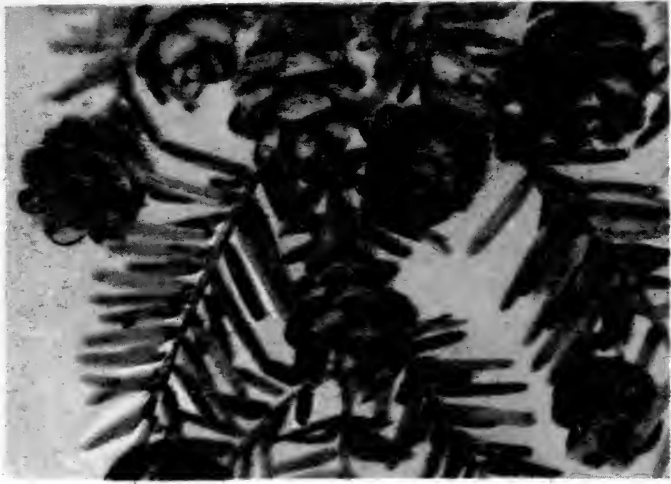
Bob picked up two or three pine cones  
lying under one of the pine trees.

“They are for the Discovery Table,”  
he said.

“I have some hemlock cones,” said  
Don. “They are different from the  
pine cones.”

“You were wide awake to discover  
that,” laughed Father.





## Evergreen Seeds

A seed dropped from one of the hemlock cones. Don looked at it.

“Oh, the hemlock cone has little seeds in it,” he cried.

“Yes,” said Uncle David, “there are many little seeds in the hemlock cone. Birds like to eat these seeds.”

“The wind carries the seeds when they drop,” said Bob. “That must be the way evergreens scatter seeds.”

“It is,” answered Uncle David.





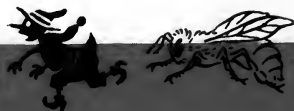
## Another Tree Home

Uncle David and Father walked on. Soon they heard the boys calling, "Come, look! See what we have found in this tree."

Father and Uncle David went over to the tree. There was a hole in it. They heard a buzz, buzz, buzz.

"Bees," cried Don. "Lots of them! What are they doing in a tree?"

"They live in the tree. It is their home," answered Father.





## Sun Time

Just then Father looked up.

“What time is it, boys?” he asked.

“We don’t know,” answered Bob.

“We can’t tell time without a watch,”  
said Don.

“Oh, yes, you can,” said Father.  
“I know that it is near noon, and I  
have no watch.”

“How can you tell?” asked Bob.

“The sun tells me,” said Father.

Bob looked up at the sun.





## Lunch Time

The sun was very bright. Bob could not look right at it. It was very high in the sky.

Father said, "It is noon when the sun is highest in the sky. That is when it gives most heat and light."

"The sun does lots of things for us, doesn't it, Father?" asked Bob.

"Yes, Bob, it does," answered Father. "In the early morning it shows us where east is. In the afternoon, it tells us where west is. It gives us light and heat, and makes things grow. It helps us in many ways."

"Yes," said Don, "and now it tells us it is time for lunch."

"It does not need to tell me that," said Bob. "I'm hungry enough to know it's time for lunch."





## Work and Play

After lunch Bob and Don helped clear the table and wash the dishes. Then they walked and played in the woods until it was time to go home. Uncle David walked with them to the car.

“Good-by, boys,” he said, as they started off. “Come again soon! You have been fine company for me today.”

“Thank you, we will,” they said.

“We want to come again soon,” called Bob as they drove away.



### **Look for —**

Animals with homes in trees.

Trees with leaves like needles.

Trees with rough bark.

Trees with light and dark spots.

Different kinds of cones.

The sun shining on trees.

### **Paint —**

A picture of a forest with a cabin  
in it.

### **Make —**

A home for an animal.

### **Write —**

A story about a tree home.

A story about the sun.



## Autumn Surprise

Autumn days were almost over. That was why Jane was surprised to see a large butterfly. The butterfly was feeding on a spray of goldenrod.

Jane told Miss King and the children about the butterfly.

“It was brown, with black stripes and white spots on its wings,” she said.

“I saw some brown butterflies, too,” said Anne. “They had black stripes and white spots on their wings.”



## Monarch Butterfly

"There were many more of them than I could count," said Anne. "They were all flying together. My father called them monarch butterflies."

"He was right," Miss King said. "I think the butterflies must have been on their way south. The monarch butterflies fly south every autumn."

This surprised the children.

"I never knew before that butterflies go south," said Sally. "I have seen birds fly south, but I have never seen butterflies fly south."

"You have learned something new!" said Miss King. "Jane, can you tell us why the butterfly was on the spray of goldenrod?"

"To get some nectar," Jane said.

"Good," laughed Miss King.



## Cocoon

The next day Sally had a fine story to tell. She had seen a caterpillar on a lilac bush. The lilac bush was near her window.

Sally said, "I was reading a book by the window, when I stopped a minute to look out. I saw a caterpillar. It went back and forth, back and forth. As it went back and forth, it covered itself with fine silk.

"While I was watching, Mother called me to dinner. So I did not see what the caterpillar did next. But Mother said I would see a cocoon in the bush when I looked again."

"Shall we all go to see it, children?" asked Miss King.

"Yes, yes," they said. "We want to find the cocoon. Let's go now!"





## Lilac Bush

“Here it is,” said Sally, as they came to the lilac bush. “Here is the cocoon, on this branch.”

“The cocoon looks like a dried-up leaf,” said Tom.

“Yes,” said Sally. “But Mother says that a beautiful moth will come from it in the spring.”

“That is right,” said Miss King. “Let us leave the cocoon here and look for the moth next spring.”





## Autumn Walk

“This is a beautiful day. Shall we stay out till noon?” asked Miss King.

“Yes, yes, yes!” they all shouted.

“Oh, Miss King,” said Jack, “let’s go down the old dirt road. I know the way. There are many things to see there. Please, may we go there?”

“Yes, that is a fine place to go. Few people go along that road. It is a good place for children to walk,” answered Miss King.







## Milkweed Seeds

As they walked along, Miss King said, "Let's have a seed hunt. Let's see how many kinds of seeds we can find."

"Oh, that will be fun," said Sally.

"I'll hold the Discovery Box," laughed Miss King. "Remember to watch for poison ivy! Poison ivy!"

"Poison ivy! Watch out!" they cried.

Mary was the first to find seeds.

"Here are milkweed seeds," she said.

"The wind is blowing them all around."





## Woodchuck

The children looked here, and there, and everywhere for seeds.

All at once, Sally came running back to Miss King. Then she pointed down the road and said, "A woodchuck! A fat, old woodchuck!"

"So it is," said Miss King. "Let's get closer to him. He eats, and eats, everywhere he goes. That's why he is so fat. He is getting ready for winter. He hears us! See him run!"





## By the Brook

Miss King and the children walked on. Soon they came to a brook. Miss King said, "This brook is a nice place to rest. Let's stop a few minutes."

While they rested, they talked.

Jack said, "Sometimes there are frogs here, but I don't see any now. They may have gone into the mud."

"It's a little early for that," said Miss King. "But they may be hiding under stones. They often do that."



## Noon Sun

Miss King looked up. The sun was high in the sky.

“It is time for lunch,” she said.

Bob looked up. He thought it was too early for lunch.

“The sun is not as high in the sky as it was at noon when we visited Uncle David,” he said.

“No,” said Miss King. “The sun is not as high in the sky now as it was at noon in summer. As winter nears, the path of the sun across the sky changes. It moves more and more to the south. The lower it gets, the longer your shadows are.

“Look at your shadows. When winter comes, we shall see how much longer they have grown. But now we must hurry back to school.”



## Tell the Right Words

cocoons    south    black    spots    spray  
stripes    white    stones    wind    autumn

Milkweed seeds are scattered by the —.

The monarch butterfly was feeding on a — of goldenrod.

Monarch butterflies fly — in autumn.

Monarch butterflies have — — and — — on their wings.

Frogs often hide under —.

Some caterpillars spin —.

The sun moves more and more to the south in the —.



## Bags for the Seeds

The days after the walk were busy ones for the children.

“We are glad we had a seed hunt,” said Jane. “It was fun.”

“We shall find names for our seeds. Then we shall know the seeds when we see them again,” said Miss King. “We can put the seeds in small bags. Then they won’t be scattered.”

“The wind can’t blow them away, then,” Tom said.





## 70 Degrees

One day everyone was busy.

Jane and Miss King were looking at the thermometer.

“The top of the line is way up,” said Jane. “It is at 70 degrees.”

“That is about where it should be,” said Miss King. “Whenever our thermometer reads 68 degrees, the air is just right.”

“It seems warm in here,” said Anne. “I like outdoor air better!”



## Good Air

“We all like outdoor air. But we can have good, fresh air inside, too,” said Miss King. “We can keep the air moving around. Then it is more like the air outside.”

“Is that why you open the windows so often?” asked Mary.

Miss King smiled and then answered, “Yes, that is one reason, Mary. The open window changes the air. It lets the warm air go out of the room and lets the cool air come in. So the air keeps moving.”

Then Miss King said, “Anne thinks the room is warm now, but that may be because she has been working hard. All of you leave your work and come over to the Discovery Table with me. I have something to show you.”





## Miss King's Surprise

When the children came to the table, Miss King said, "Here are some small, black seeds. They are flower seeds.

"Tomorrow I shall bring a plant for you to see. It grew from seeds like these. It is a surprise because you may want to eat the blossoms."

The children looked at each other. What did Miss King mean?

The next morning they came to school early. They looked carefully at the Discovery Table. There was only one new thing they could see. It was a large cauliflower! The children asked themselves why it was there.

Each girl and boy tried to find the blossoms to eat. They looked at Miss King. She only smiled and said, "Do you give up?"





## Cauliflower

At last the children gave up.

“Do tell us, Miss King,” Don said.

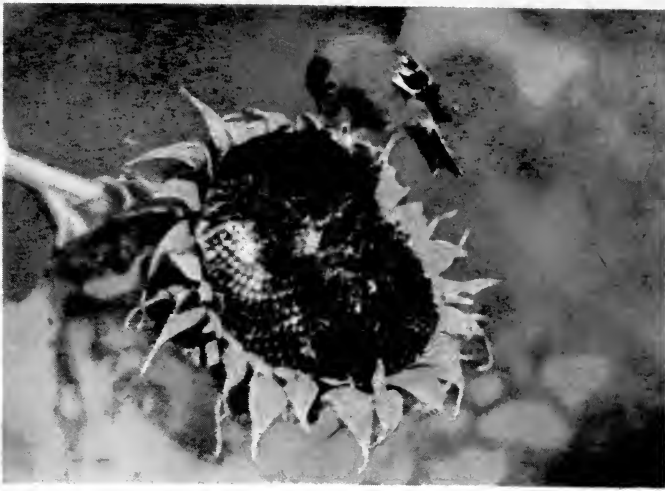
Miss King laughed. “The blossoms are part of the cauliflower plant. They are the part we eat,” she said.

How surprised the children were!

“We’ll save the cauliflower seeds,” they said. “We will plant them. We want cauliflowers to look at. We want cauliflower blossoms to eat!”

Then how the children laughed!





## Food for Birds

Another day Miss King showed the boys and girls a picture of a goldfinch. The bird was eating sunflower seeds.

"I saw this small, yellow bird eating sunflower seeds," said Miss King. "So I took its picture. It is a goldfinch."

"Do goldfinches and other birds like sunflower seeds?" asked Nancy.

"Yes," said Miss King. "Birds like sunflower seeds and other seeds, too. They also like berries."





## Berries for the Birds

On the way home that day, Tom said, "Let's take seeds and berries to school for the birds this winter. We can get some of these mountain ash berries right now."

Emma said, "Let me get some woodbine berries. They are blue."

"I'll get another kind of red berry, from our barberry bush," said Bob.

"My, what a lot of berries we shall have for the birds," said Tom.





## No Hungry Birds

The next morning the children took the seeds and berries to school. There were berries from the mountain ash. There were berries from the barberry bush. There were other berries, too.

“With all this food,” Don said, “the birds will not go hungry now!”

“They will have berries and seeds, and seeds and berries. Let’s all dance around and play we are fairies,” sang the children.



## Indoor Discoveries

A few mornings later, Miss King said, "We have had lots of fun outdoors this autumn, getting seeds and berries and doing other things. Now the days are getting colder. We must plan for happy times indoors. We shall make some indoor discoveries. I have a discovery planned for you today. You will find something on the little table."

The children went over to the table. Some needles, tacks, and magnets were on the table.

"Hold the magnet over the tacks and needles, Jane," said Miss King.

"Oh, I know what will happen," said Ray. "The magnet will pick up the things that have iron in them."

"We shall see," said Miss King.





## Using the Magnets

Everyone wanted to use the magnets, so they took turns. They picked up tacks, needles, pins, and nails. They even tried to pick up beans, too, and bits of paper.

The magnets picked up the needles and tacks but not the beans and paper.

“The tacks are made of iron and the needles of steel,” said Miss King. “Steel is a very hard kind of iron. Magnets pick up iron and steel.”





## Ray's Surprise

The next day Ray had a surprise for the children. He said, "I wanted to bring something to school, so I brought a sweet potato. If we put it in water it will grow. My father says it has food stored up in it."

The children put the sweet potato in a dish of water. In a few days, it had many tiny, white roots.

After a while, little, green leaves began to grow. They grew and grew.





### **Make —**

A feeding place for birds.

### **Plant —**

A sweet potato in water. Do not cover all of the potato with water.

### **Write —**

1. The names of as many berries as you can find in the place where you live. If you live in a large city, you may have to visit a park or garden.

2. The names of all the seeds you know.

3. The number of degrees that the thermometer shows at 12 o'clock, noon, each day for a week.

### **Cook —**

Some cauliflower at school when you can get some.



## Tom's Plan

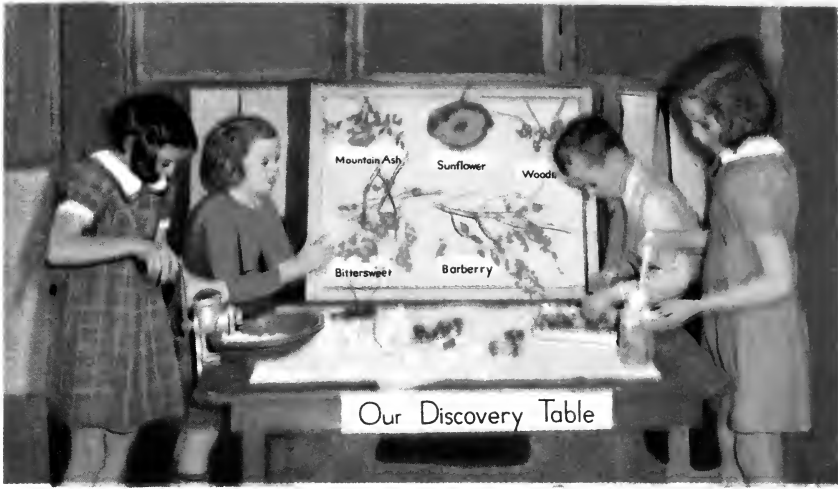
It was the middle of winter. Snow was on the ground.

One day the children were out walking. They saw some sparrows looking for food. They saw other birds that were hungry, too. They were sorry for the hungry birds.

Tom said, "Let's have a Christmas tree for the birds, and put our seeds and berries on it."

The children liked Tom's plan.





## Cakes for the Birds

Miss King liked Tom's plan, too.

"We can make nut cakes for the birds," she said. "Birds like them."

"How are they made?" asked Anne.

"They are made of suet and nuts," she answered. "The suet and nuts must be ground into tiny pieces. Then they are held together with peanut butter."

"Let's make them now. The birds want Christmas cakes," said Emma.





## Popcorn for the Birds

Ray thought of something more for the Christmas tree.

“We can pop corn,” he said. “We can string it. I did that last year for my Christmas tree.”

“Do birds like popcorn?” asked Nancy.

“Some do,” said Miss King. “They will also like our berries and seeds.”

“We can string berries and seeds, too,” said Bob. “They will look nice.”





## Christmas Tree

When all the things were ready, the children put the suet and nut cakes on a little tree.

They called it the birds' Christmas tree.

They put on the berries and seeds.

The popcorn strings were put on last of all.

How pretty the little tree looked!

The children were very happy! They hoped the birds would be happy too.





## Canary

Not long after Christmas vacation, Emma had a surprise, a pretty surprise for the children. It was a little bird, in a cage. It was Emma's pet canary. She had brought the canary to school so the children could see it.

Everyone wanted to be near the canary. They watched it all day long.

The canary ate some seeds. It ate lettuce and bits of apple, too.

"We call him Peter," said Emma.



## Peter

Peter sang a little song. Then he did other things. He took a bath. This pleased the children most of all.

“See him splash the water,” said Bob.

“He is shaking the water off. Oh, he is shaking it off on me,” said Mary.

My! How Mary and all the children laughed at that! They laughed so hard they frightened Peter. He hopped up on his perch. He hopped down from his perch. Up and down and all around, he hopped.

“How does he stay on his perch?” asked Jane.

“His claws tell you,” said Miss King.

Peter’s claws were long. They curled around the perch.

Peter was not afraid any more. He sang and sang.





## Snowman

Lots of snow was on the ground. But the sun was bright. It was a good day to be outdoors.

“Let’s make a snowman,” said Bob.

“I’ll make his eyes and mouth,” said Jane, “and buttons for his coat.”

“I’ll help find the buttons,” said Mary.

“He may have my cap,” said Walter.

“It may keep the sun from melting him.”

Everybody helped, and soon their snowman was finished.







## Long Shadow

After they had finished the snowman, the children and Miss King took a walk down the old road.

On their way back, Jack stopped them to look at his shadow.

“My shadow is longer than it was last autumn,” he said.

“Yes,” answered Miss King, “but it will be shorter soon. Each day the sun is climbing more to the north and noon shadows are growing shorter.”





## Poor Snowman

When the children got back to the yard at school, Bob ran ahead. All at once he called, "Come, quick! Our snowman is gone!"

"The sun has been shining on him all morning," said Miss King. "It made him melt away."

"Where is my cap?" asked Walter. "It was on the snowman's head."

"Here it is," said Tom. "It fell off when the head melted."



## **Caring for Birds**

Look for hungry birds.

Give the birds food.

Take care of them every day.

## **Caring for Pets**

Keep your pets clean.

Give them food and water.

Give them good homes.

## **Watching Shadows**

Watch for long shadows.

Watch for short shadows.

Where is the sun when you have  
a short shadow?

Where is the sun when you have  
a long shadow?



## Good News

Bob and Don ran across the street. They were in a hurry to get to school. They had good news to tell. When they reached their room, Bob called, "Miss King, tell all the children to keep on their wraps!"

"Uncle David is bringing his bobsled to take us to his camp," said Don.

"Oh, what a nice thing for him to do," said Miss King. "There he is now! We must button our coats. It's cold."





## Sled Ride

“Hello, everybody,” called Uncle David. “Ready for a sled ride?”

“Yes, yes, yes,” the children shouted as they climbed onto the bobsled.

Then Bob said, “Last summer I sang:

Away we row! Away we row!  
To Uncle David's house we go!

Now we can all sing:

Here we go! Over the snow!  
On Uncle David's sled, you know!”

They laughed, and sang the song.





## Cabin in Winter

As they rode along, the children sang and talked and laughed. Sometimes they just sat and watched and listened.

Clop, clop, clop, clop went the feet of the horses on the hard snow.

Hum-m, creak, hum-m, creak, hum-m went the runners of the bobsled.

All at once, Bob shouted, "There's the cabin! All covered with snow!"

"Yes," said Uncle David. "Here we are. Everybody off!"



## Food and Heat

Aunt Mary came to the door.

"Come in, come in and get warm," she called. "I have a fine fire in the fireplace, and some nice, hot soup and crackers all ready for you."

In they all came. Off went the wraps. Up to the fireplace went the children.

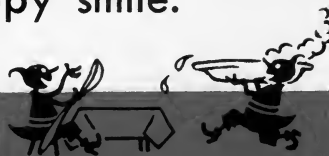
Uncle David went out again to feed the horses and cover them. Some of the boys watched him from the window.

Just then Aunt Mary called, "Helpers! I need helpers, to carry in the soup."

Every boy helped carry in the plates of soup and crackers.

"My, how good this tastes!" said Sally. "Thank you, Aunt Mary."

"Thank you," cried all the children. Aunt Mary smiled a happy smile.





## Uncle David's Pet

"Come, Sammy. Where is Sammy?" asked Uncle David.

"Sammy?" asked Don. "Who is he?"

Uncle David smiled. "Pull your chair close to that table," he said, "and I will give you a dish with bread in it." Then he called again, "Come, Sammy."

Guess what jumped on the table!

"A woodchuck! Of all things! A woodchuck for a pet!" said Sally.

The children laughed and laughed.







## Feeding Place

When the soup was finished, the children put on their wraps and went outdoors again.

There was the red-headed woodpecker! He was not tap-tapping for food this time. He was eating some suet at the feeding place.

“He likes the taste of suet,” said Uncle David. “Squirrels also like its taste. Our friends in the woods are glad when we help them in winter.”





## Feeding Animals

“ Oh, look!” cried Tom. “ A squirrel has taken the woodpecker’s place, and he is eating some suet, too.”

“ Do you feed any other animals, Uncle David?” Don asked.

Uncle David laughed. “ No, not often. Most animals find food for themselves. But sometimes they need help when snow is on the ground.”

“ Have the deer been here lately?” asked Bob.





## Snow Tracks

“Yes,” said Uncle David. “I saw the deer yesterday. I put out some food for them.”

“Are those the tracks they made?” asked Nancy.

“No,” said Uncle David. “Those are tracks of rabbits and pheasants.”

“I know which tracks the pheasants made,” said Nancy. “Pheasants have only two feet. The rabbit made his tracks with four feet.”





## Tree Sparrow

The children walked on. They saw a small bird standing in some snow.

“That is a tree sparrow,” said Don. “It has a red-brown head and back.”

“The tree sparrow has made some tracks in the snow,” said Anne. “They are so small, it is hard to see them.”

“They are not like the tracks made by the pheasants,” said Bob. “The pheasant tracks are much larger than the sparrow tracks.”





## Wild Ducks

The children and Uncle David had reached the lake now.

“Look!” said Bob. “There are some ducks swimming on the lake. See their red heads and white wings.”

“They are wild ducks,” said Uncle David. “The wild ducks stay here all winter. They swim around on the lake, where the water doesn’t freeze. Their feathers keep them warm. They will go north in the spring.”





## Bobsled Again

The day passed all too soon. Just as the sun was setting, the children climbed onto the bobsled again.

The children liked the different sounds. The bobsled runners hummed a happy song. The horses' feet went clop, clop; clop, clop; clop, clop, clop.

The children sang:

“Home we go! Over the snow!  
On Uncle David's sled, you know.  
On Uncle David's sled, you know.”



### **Draw —**

A winter picture.

Have a cabin in your picture.

Have two animals and a bobsled.

### **Make —**

A little cabin.

Animal tracks in clay.

Some ice in a pan of water.

### **Tell —**

Something about animal tracks.

What deer like to eat in winter.

What birds like to eat in winter.

How to make a fire in a fireplace.

### **Why —**

Do ducks keep warm in winter?

Did Uncle David cover the horses?

Did the children sometimes just watch  
and listen?



## Lilac Twigs

Days went by quickly after the sled ride. Springtime came over the land.

The days were warmer now and little leaf buds were growing on the twigs.

One day Sally brought some twigs from her lilac bush at home.

“Soon there will be beautiful green leaves on the lilac twigs,” said Don.

“Each twig is a street,” said Emma.  
“The leaves are neighbors. They live across from each other.”





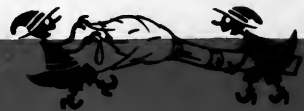


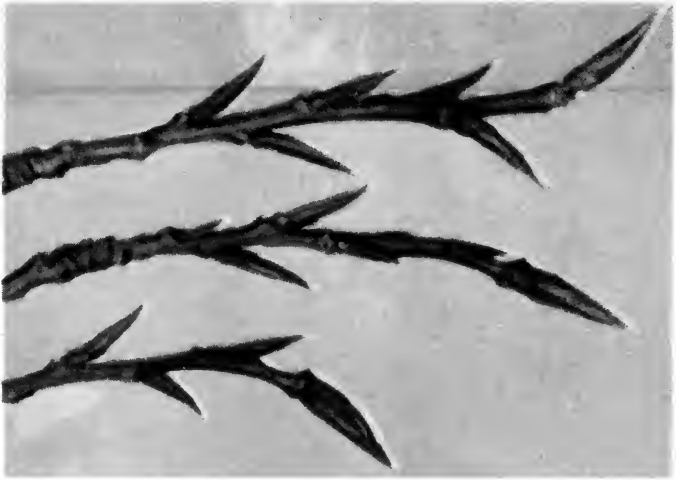
## Horse Chestnut Twig

The next day Nancy brought a twig from a horse chestnut tree. It had large buds. The buds grew across from each other on the twig.

“See how these buds are covered with something sticky,” said Tom. “It is sticky, like honey.”

“Yes,” said Miss King. “The buds are covered with resin. Resin protects the buds. It keeps them from getting too wet or too dry.”





## Cottonwood Twigs

Other twigs were brought to school. Bob brought cottonwood twigs. They had smaller leaf buds than the other twigs.

“The cottonwood buds are pointed,” Jane said. “They do not grow across from each other.”

“No,” said Ray. “Cottonwood buds are not as friendly with each other as lilac buds are with their neighbors.”

How the children laughed at that!





## Bluebirds

The children went outdoors almost every day now.

The sun had melted the snow. It had melted the ice, too. The grass was getting green and plants were growing. The air smelled sweet and clean.

The children watched the clouds. They watched to see how the wind blew. They looked for flowers and birds.

One day Tom saw a bluebird. It was taking food to its babies.





## Swallowtails

Every child watched for new things.  
Every day now the sun was higher  
in the sky. The days were longer.  
The air was warmer.

Sally saw a swallowtail butterfly  
on some lilac blossoms.

“The swallowtails are here,” Sally  
told the children. “I think you may  
see one, if you will come with me.”

So all the children went with Sally  
to see the swallowtail butterfly.





## Lilac Bush

“We shall go to my garden,” said Sally. “You can see where I found my lilac twigs.”

So the children walked to Sally’s garden. It was a large garden, filled with beautiful flowers.

Sally said, “Here is the bush where I found the twigs.”

As they looked at the lilac bush, Don cried, “There is the swallowtail.”

So they all saw the swallowtail.





## Spring Surprise

Nancy had a secret. It was her very own secret. Something was going on in the terrarium. At last, she could not keep her secret any longer. "Come, quick!" she called.

And what do you think?

The little turtle and the frog had come out of the soil in the terrarium.

"Let's take them to the brook," said Jack. "They are happier there."

"We can go now," said Miss King.





## Down to the Brook

The children sang songs as they walked to the brook.

They looked up at the trees. Birds were singing in the trees. The clouds were big and white in the blue sky.

The children laughed and clapped when Bob sang:

“Our friends, the frog and turtle,  
Are leaving us today.  
We have brought them to the water.  
Now watch them swim away!”





## Good-by Race

“The frog seems glad to get away,” laughed Bob. “Watch him go!”

“The turtle is swimming away, too,” said Jack, “but not so very fast. The frog has left him far behind.”

“What will they find to eat?” asked Don. “Won’t they be hungry?”

“No,” said Miss King. “They both can find all the food they need. There is plenty of their kind of food along the brook.”







## Fallen Tree

The children walked slowly on beside the brook. Soon they came to a tree, fallen across the brook.

“Let’s climb up on it,” said Don.

“Sometime or other, the water was very high in the brook,” said Miss King.

“It washed the dirt away from the roots. That is why the tree fell.”

“It’s dead,” said Jack. “Is that why it’s dead?”

“Yes,” said Miss King.





## Nancy's Surprise

One day in late spring, Nancy said, "I have a surprise for all of you. Please come with me."

Then she took the boys and girls to a tree near the school.

She said, "This is where I found my horse chestnut twig. Look at the tree now! Look at its large leaves."

"Yes, and look at its beautiful blossoms," said Emma. "There are blossoms all the way to the top."





## Tree Blossoms

Nancy and Sally pulled some of the blossoms down near their faces.

“They are beautiful,” said Sally.

“Will the blossoms stay on the tree long?” asked Bob.

“No,” Miss King said. “Soon small green horse chestnuts will grow from the blossoms.”

“Yes, and by autumn they will be large and brown,” said Ray. “I know, for I gather them every year.”





## Oriole's Nest

“I have a surprise, too,” said Frank. “It is a nest that looks like a bag. Come with me to our garden, and I will show it to you. It swings from a branch of an old apple tree. It is made of hair, and string, and grass. It is an oriole’s nest.”

So they walked down to Frank’s garden to see the oriole’s nest.

“Oh, what a pretty home!” said Sally. “What a pretty place to live!”



## Riddles

One day the children in Miss King's room made riddles. Here are some of them. Guess these riddles:

We have resin to protect us.

We grow side by side.

What are we?

We are pointed.

We have resin to protect us.

We do not grow across from each other.

What are we?

I am a home.

There are pretty flowers around me.

I swing in the wind.

I am made of hair and string.

What am I?

Now make some riddles of your own.



## Mother Cedar Bird

School days were passing quickly. Each day brought some new thing for the children to see. The winds, the clouds, the trees, the air, all were full of adventure for them.

Always they watched and listened. Once they saw a mother cedar bird feeding her babies. She had an insect in her bill. All the young cedar birds wanted it.

“What a busy mother!” said Jane.





## Pet Lamb

One day Walter invited Miss King and the children to his farm. When they reached the farm, Walter said, "I want to show you our new baby."

"New baby?" asked Bob. "Is there a baby at your house?"

"Oh, yes," said Walter. "We have two or three at our house. Here is one right now — my pet lamb."

"A baby lamb! Oh, what a fine pet," cried the girls.





## Soft Wool

The children took turns patting the baby lamb. They were surprised to find its wool so soft and warm.

At first the lamb was a bit afraid of the children, and stayed by Walter.

“We have other sheep, too, but only the baby lambs have soft wool now,” said Walter. “The old sheep had their wool cut off early in the spring. My father sells the wool to be made into clothes and other things.”







## Another Baby

“Here is another baby,” Walter said. He pointed to a colt with its mother.

“My, what long legs!” said Don, as he looked at the colt.

“When the mother stops to eat grass, the colt stops, too,” said Jane.

“The colt stays close to its mother,” Bob said, “because it is afraid of us.”

“Bob is right,” said Walter. “The colt is afraid, so it stays near its mother, just the way the lamb stayed near me.”





## Promethea Moth

The next day at school, Sally cried, "The moth is out. The cocoon I found has opened. Come quickly, please!"

All the children ran to see.

"Oh, how beautiful! It is one of the prettiest moths — a Promethea," said Miss King, "a Promethea moth."

"I like that name," said Don.

All the children liked Promethea.

"Let's keep the cocoon, to help us remember Promethea," said Don.





## Good-by Picnic

The last day of school had come. The children were sad. Miss King said, "Come, children, smile! We shall have a picnic and take Boots with us."

The children all liked Boots. Boots was Miss King's dog. So they smiled and were happy again. They played games in the park and had lunch under a big tree. Then all of them thanked Miss King and said good-by.

"Happy vacation!" she said.





## Muskrats

Now that school was over, Bob and Don were going to Uncle David's. Uncle David had come to get them. They were driving to the lake with him.

"There's the lake!" Don shouted.

"Oh, no," said Uncle David. "That is a stream. It runs into the lake. Some muskrats live in that stream. They build queer houses there. Shall I tell you about them?"

"Yes, please do," Bob said.





## Muskrat House

“Look!” Uncle David said. “There is a muskrat house now. It is made of plants, and sticks, and mud.

“Part of the house is above the water and part below the water. Muskrats build their houses this way so they can have a place to breathe. A muskrat can stay under water a long time, but it cannot breathe under water.”

“What a queer, queer house,” said Bob.





## Buttercups

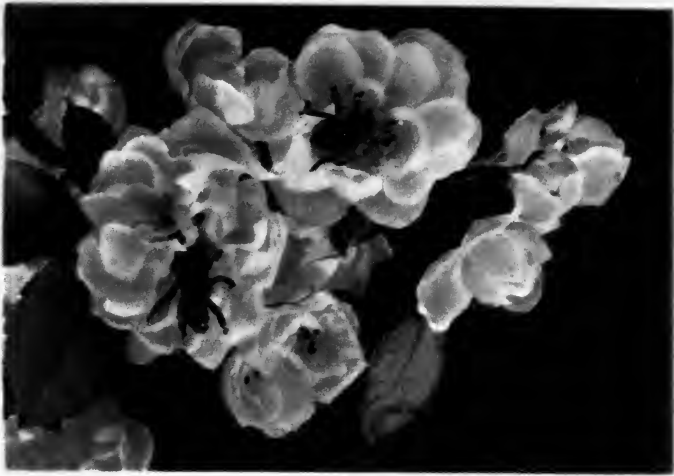
After they had watched the muskrat house for a while, Uncle David drove on. Soon they came to the cottage.

"Here we are," said Uncle David. "Now run around and have a good time. When you are tired, come up to the cottage."

"We will," said the boys as they ran to a field of buttercups near by.

"You like butter, Don," Bob said. "Buttercups make your chin yellow."





## Honeybee

The boys did not stay long among the buttercups. Next they came to a wild rose bush.

“Oh, see the honeybee!” Bob said. “I hope it doesn’t sting us.”

“It is getting nectar to make honey,” said Don. “It won’t sting us, if we leave it alone.”

“We will leave it alone, then,” laughed Bob. “I like honey much better than I do stings.”





## Red Poppies

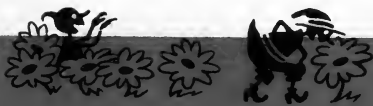
The boys went here, they went there,  
they went all around the cottage.

Everywhere they turned, they found  
more flowers.

“Aunt Mary must love flowers,” Don  
said. “There are so many here.”

“The honeybees like them, too,” said  
Bob. “Here is one in this poppy.”

“If the girls were here, I am sure  
they would say, ‘Oh, what pretty  
poppies!’” laughed Don.





## **Tell —**

Why the mother cedar bird was such a busy mother.

What came out of Sally's cocoon.

Why the muskrat has part of its house above the water.

What wool is used for.

Why the children were sad.

What makes things grow.

## **Draw —**

A picture of a lamb.

A picture of a colt.

## **Write —**

A story about the honeybee.

A story about some baby animal.



## The Woods

The next day Bob and Don started for the woods. They thought the deer and her fawn might be near. They asked Uncle David's neighbor.

"No," he said, "I have not seen the deer or her fawn for a long time. If I see them, I'll let you know."

Bob and Don went on into the woods. It seemed very quiet there. The boys listened. They watched. They saw old friends and new.





## Baby Woodpeckers

But the woods were not so quiet after all. The boys began to hear the little forest sounds — sounds they had not heard at first — sounds of little animals moving, and leaves whispering, whispering, always whispering.

All at once, they saw four baby birds, on the side of a tree trunk.

“Baby woodpeckers,” said Don. “Just like the ones in the bird book! But they are hard to see on the tree.”





## Green Ferns

The boys watched the four baby woodpeckers for a while. Then they walked on. Don looked down at some ferns near by.

“These must be some of the ferns Uncle David told us about,” he said. “He told us that the snow covered them and kept them warm. Now they are growing again, fresh and strong.”

“Ferns grow best in the woods. They like the shade,” said Bob.





## Mother Oriole

The boys went back to the cottage. Uncle David was waiting for them.

“I have something to show you,” he said, “up in the old elm.”

The boys and Uncle David climbed the tree. When they were almost at the top, Uncle David whispered, “Look! Out at the end of that branch!”

“It is a mother oriole, feeding her babies,” said Bob. “The nest is just like the one Frank showed us.”





## Baby Oriole

“What is the oriole feeding the babies?” asked Don.

“Worms,” answered Uncle David. “Orioles feed worms to their babies.”

“I wish we could see one of the baby orioles better,” Don said.

“They are too young to come out of the nest,” said Uncle David. “But let’s climb down and I will show you a picture of one. Then when these are a little older, you may see them.”





## Wild Duck's Nest

After the boys had seen the picture of the young oriole, Uncle David said, "I have something more to show you. Let's go over into that tall grass. There is a wild duck's nest there."

They walked quietly and carefully into the grass.

Yes, the nest was there!

It was a pretty nest, soft and downy, with lots of feathers in its walls.

There were just twelve eggs in it.





## Sandpiper's Nest

“I have another nest I want to show you,” said Uncle David. “It belongs to our friend, the sandpiper.”

They walked down near the shore, and there they found the nest, hidden under some wild strawberry plants.

Four pretty, brown-spotted eggs were in the nest. Some strawberries were just above them.

“This nest is not soft and downy like the wild duck's,” said Bob.





## Good in Everything

“No,” answered Uncle David. “The sandpiper’s nest has only grass, and straw, and sticks.”

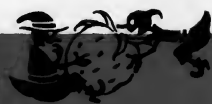
“It has only four eggs, too. The wild duck’s has twelve,” said Bob.

“Well,” said Don. “There may not be any soft feathers in this nest, but there are pretty strawberries above it. There may be only four eggs, but they are pretty with the dark-brown spots.”

“You are right, Don,” said Uncle David. “There is always something good to see in everything.”

“Do wild ducks always have twelve eggs in their nests?” asked Bob.

“No,” said Uncle David. “Mostly eight or ten. The sandpiper lays only three or four eggs, always with the small ends in the middle of the nest.”





## Owl in the Tree

The boys watched the sandpiper's nest a minute or two longer. Then Uncle David said, "Come, it is getting close to supper time. Aunt Mary will be waiting for us."

As they walked along, they watched and listened. All at once Don said, "Oh, look at the owl up there in that old tree! Uncle David, do you think it's the one we heard last fall, when we rowed home from your cottage?"





## Baby Owls

“Yes, I think so,” said Uncle David, “because that tree is by the cottage. One day, not long ago, I climbed the tree and found four baby owls. They have grown and grown.”

“There they are, looking down at us from the fence,” said Bob.

“Right you are,” said Uncle David, “but we must keep moving. I see the cottage, and Aunt Mary is waiting.”

“Supper’s ready,” she called.



## Dreamland

Supper was over. Dishes were done. Everybody was on the porch, talking. Sometimes they sat quietly, and just watched the sky and listened to the night sounds.

Darkness was falling over the earth. Night birds were calling. The wind was whispering to the trees. The voices of the forest were soft and low.

“Croak, croak, croak,” went the frogs down by the water lilies.

“Who, who, who are you?” called the owl. “Who are you?”

At last Aunt Mary said softly, “Bed for two sleepyheads, two sleepy sleepyheads. Up to bed, sleepyheads!”

“Good night,” said Don and Bob. And they went up to dream of new adventures in science.



## **Name —**

As many forest voices as you can.  
Some of the things you have seen  
when darkness was falling.

Some of the sounds you heard.  
Make these sounds.

## **Why —**

Do you think Don liked the nest of the  
sandpiper?

Did Uncle David climb the tree?

Did Aunt Mary say, "Bed"?

Do wild ducks build their nests on  
the ground?

Do orioles build their nests in trees?

## **Paint —**

A large picture for your room.

Put in your picture all the things you  
have liked best in the book.



## A New Day

Bob and Don were still asleep when Aunt Mary called, "Come, boys, get dressed."

"We're coming," shouted both boys. They talked as they dressed.

They talked of their adventures. They talked about some of the things they had learned.

Don said, "Do you remember last summer when we woke so early to come here to Uncle David's?"



## Fruit for Breakfast

"Yes," answered Bob. "That was when we learned that the sun rises in the east and sets in the west."

"The sun changes our shadows, too," added Don. "They were much longer in the winter when the sun was lower in the sky. They were shortest at noon."

"Remember how I knew when it was time to eat lunch," laughed Bob. "The sun was right over my head then."

"It was noon, then," said Don. "Now it is morning and time for breakfast."

"Come on," said Bob. "I'm hungry."

"Can we help you?" asked both boys, as they ran down to the kitchen.

"Yes, indeed," answered Aunt Mary. "You can get the fruit for breakfast. You will find it on the cherry tree."





## Picking Cherries

Bob climbed the cherry tree first.

“Leave some for me,” said Don.

“I shall,” said Bob. “This tree has enough cherries for everybody.”

“Fruit is always good for breakfast,” said Don, as he began to pick cherries.

“Remember when we ate a blossom, Bob? The cauliflower was a blossom.”

“Yes,” laughed Bob, “and the carrots we ate were roots. We eat fruit, blossoms, roots, and all!”





## Things to Remember

At breakfast Bob and Don talked about more things they remembered. They remembered the green ferns growing in the shade. And the big red poppies growing in the sun. Yes, and the water lilies in the lake.

They remembered about other plants and animals of field, woods and lake. When they went back to school next fall, they would tell about these things.

You, too, can tell your friends what you remember. You can tell them that people travel in different ways. You can tell them that animals have different kinds of homes.

And best of all you can tell them how you know that Bob and Don were good friends to all.

How much do you remember?





## New Adventures

Bob and Don are now a year older. They are reading about their adventures just as you have read about them.

They look happy. They liked their old adventures. But they are ready for new ones. Are you?

Jane and Paul are to be your new friends. You will have new adventures with them. You will meet them when you read "Adventures in Science with Jane and Paul."



## Word List of Judy and Joe

This science book has such an easy vocabulary and its sentence structure is so simple that it may be used as a basal reader. Ninety-five per cent of the words are in the first 500 words of highest frequency in lists like those by Thorndike-Lorge or Gates. Other words are listed below, but even the majority of these are familiar first-grade words, some of kindergarten simplicity. The small number of specialized science words are quickly and easily mastered through their close correlation with pictures and text.

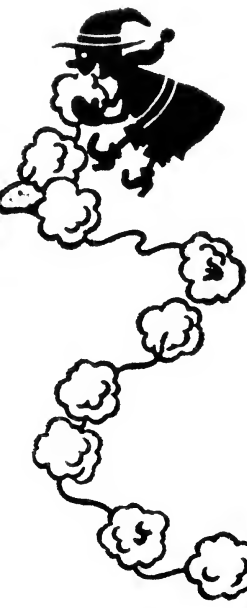
afternoon, 3	earthworms, 18	let's, 22	sand, 49
air, 54	feed, 57	lettuce, 11	sauce, 43
Anne, 41	flies, 89	line, 32	shadows, 3
autumn, 32	freeze, 60	Lucy, 58	short, 3
basket, 20	fresh, 22	magnifying, 84	smell, 4
beans, 13	fruit, 86	market, 23	soil, 18
bee, 88	glass, 84	melted, 59	soup, 45
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can't, 15	honey, 88	pick, 5	thermometer, 32
carrots, 10	hope, 19	pine, 66	tiger, 63
catbird, 19	Hoppy, 48	pinwheel, 77	toad, 14
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Dick, 36		run, 21	wool, 26
doesn't, 62			workers, 7
drive, 25			zoo, 62

## Word List

The simple structure and easy vocabulary of this science reader make it an effective part of the basal reading program. Many of the following words are recognized as familiar second-grade words but they are listed here because they do not appear in the first 1000 words of the Gates list.

- |                 |                  |                |                 |
|-----------------|------------------|----------------|-----------------|
| adventure, 1    | discover, 8      | net, 27        | shells, 27      |
| ahead, 13       | Don, 2           |                | shore, 4        |
| aquarium, 32    | dream, 130       | oars, 5        | shouted, 6      |
|                 | drove, 48        | oriole, 106    | snails, 26      |
| barberry, 66    | dug, 36          |                | sorry, 72       |
| belongs, 126    |                  | part, 64       | sparrow, 72     |
| bend, 9         | elm, 123         | path, 58       | spots, 17       |
| blew, 97        | Emma, 34         | Paul, 136      | steel, 69       |
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| Boots, 113      | fawn, 17         | Peter, 76      | strawberry, 126 |
| breathe, 115    | ferns, 122       | pheasants, 89  | stream, 114     |
| broke, 15       | forth, 52        | plan, 68       | stripes, 50     |
| brook, 57       | Frank, 34        | plane, 41      | stumps, 14      |
| bush, 52        |                  | plenty, 102    | suet, 73        |
| buttons, 78     | goldenrod, 50    | pop, 74        | swallowtail, 98 |
|                 | happened, 33     | poppies, 118   | swam, 32        |
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| cauliflower, 63 | hemlock, 43      | protects, 95   | tacks, 68       |
| cedar, 108      | hum-m, 84        | queer, 114     | tastes, 85      |
| chestnut, 95    | hurry, 82        |                | terrarium, 35   |
| clop, 84        |                  | Ray, 70        | thin, 23        |
| colt, 111       | ivy, 55          | reason, 8      | thrifty, 3      |
| company, 38     | Jane, 136        | resin, 95      | Tom, 53         |
| cottage, 12     |                  | riddles, 107   | tracks, 89      |
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| crawled, 32     | Mary, 10         | Sally, 51      |                 |
| creak, 24       | monarch, 51      | Sammy, 86      | Walter, 78      |
| croak, 24       | moss, 15         | sandpiper, 23  | whispering, 121 |
|                 | mountain ash, 66 | saves, 3       | wild, 91        |
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| degrees, 61     |                  | secret, 100    | woodchuck, 56   |
| different, 40   | Nancy, 30        | shade, 122     | wool, 110       |
| disappear, 36   | neighbors, 14    |                | wraps, 82       |









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