

**CLASSROOM PICTURES
AND CHARTS**
Handbook

by
F. IRENE SERJEANT

*(N.F.U. Trainer's Diploma, formerly Lecturer in Education,
University of London, Goldsmith's College.)*

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PREFACE

THE New Era Series of pictures and charts presents a wealth of material drawn from widely varied aspects of life—aspects which are of considerable educational value and among the natural interests of most children in both Infant and Junior departments of the Primary schools.

Included are pictures which portray the general everyday background of life in Old and New Testament times. Of particular interest to children in the Primary school are the charts dealing with life in the home, street and shop. Attention has been paid to the making of a home and the keeping of various kinds of shops. The values of simple money and weights have been dealt with in such a manner that it is easy for young children to understand and use them. The forms of transport in the street are excellently illustrated, and the various traffic signs carefully shown.

For the interest and delight of all, there are charts on which excellent and careful drawings show, in their natural colours, English garden and wild flowers of all seasons. Birds, butterflies and moths also are shown. Each creature is named, and the time of year when it is likely to be found is stated. There are also pictures of well-known trees of the English countryside, and in addition a group of trees and shrubs which bear outstandingly beautiful flowers.

A study of the railway station leads on to visits to the country, seaside and city. At the seaside we have a circus, fair and puppet show.

Three charts of wild animals that live in hot, cold or temperate climates come into this group, and another chart shows some of the most interesting animals of the English countryside.

More especially for the younger Primary-school child, there are excellent pictures of bread production, from the cornfields of England and Canada to the freshly baked loaf in the baker's shop. The series of pictures of life on an English farm illustrates the sources of other kinds of food which are commonly found in our homes.

The older children of the Primary school will be likely to find an absorbing interest in the excellent charts dealing with the historical development of transport by land, sea and air. The charts on the history of lighting and on

the numerous ways by which man has learnt to tell the time throughout the ages will be of equal interest.

All the charts hold something particularly suitable for children throughout the Primary schools. They also contain much that is of educational value and interest to pupils in Secondary Modern schools. This is particularly so in relation to their studies in nature, history and invention.

The special function of this handbook is to introduce the varied aspects of life illustrated on the charts and to encourage children who can read to carry out further observation and study. Questions are put and different types of work suggested. It is not intended that any child shall do all the work set out at the end of each section. The work set and the problems raised are graded so that individuals may make a choice according to their particular interest and ability.

This book will serve its purpose best if it is placed where it is readily available to readers. The folio of charts should be kept close at hand in order that they may be studied as the reading progresses. It is realized that several children may wish to work together with one chart, or individuals alone with different charts. To facilitate this it has been arranged that, in addition to the handbook that accompanies the folio, single copies will be available for separate purchase.

Many teachers, especially those who work with children of Primary-school age and older backward children, are likely to find in this book useful starting points for the development of new interests. This will certainly be true of the practical work which such children generally enjoy carrying out.

Special attention has been paid to practical work in connection with safety in the street, and in the making of puppets and the presentation of puppet plays. The road-safety work is of great importance to the younger children and the puppetry very valuable to older children who are shy or backward in their ability to speak.

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LIFE IN BIBLE TIMES

Chart 1: The Desert

THIS chart shows how people travelled through the desert in long-ago Bible days. Look at the desert with its bare rocky hills and sandy ground. There are no trees to shelter travellers from the hot sun, which shines upon them all day long. At the top right-hand corner of the picture a long caravan of camels is seen approaching. These animals are the great friends and helpers of people who travel across the desert, because they can journey for long distances without food or water and carry heavy loads on their backs over the hot sand and bare rocky ground.

Look at the people, each one wearing a long loose cloak and shady head-dress to protect himself from the heat of the sun and the hot sand, which the wind often blows upon him when there is a storm.

All day long these Arab men, women and children journey with their caravan. The sun shines and the feet of the camels sink into the dry sand. No water is to be found except in the skin water-bottles which hang from their backs.

Towards the end of the afternoon someone gives a shout of joy. The tired people and camels look up, and there, not far away, they see an oasis. The camels quicken their pace and everyone is happy. Soon the long day's journey will be over.

You can see a picture of an oasis at the front of the chart. Look at the tall palm-trees with their long spreading leaves. Beneath them lies a deep pool of clear cool water. Beside it, beneath the palms, some travellers are resting.

Soon the new caravan arrives and everyone sets to work. Some of the men unload the camels and give them a long cool drink. After this they settle them down in a place where they can eat and rest safely through the night. Other men put up tents, while the women open their food-bags, light fires and prepare the evening meal. The children run here and there, helping where they can.

When the meal is over, the women clear everything away and, taking

the children with them, they go to sleep in their tents. The men sit for a while resting under the palm-trees beside the beautiful pool of water. They talk about their journey and many other things which they hope to do when it is over. Soon darkness comes. The men wrap themselves in their loose warm cloaks and lie down to sleep, some by the pool, and some in their tents.

Everyone wakes early next morning. Breakfast is eaten quickly. Water-bottles and jars are filled, food-bags packed, tents taken down and rolled up. The camels are given a last drink and are then loaded. All are anxious to start on the new journey for it is a long way to the next oasis, which they must reach before darkness comes again. In the desert, there are no roads like ours, and there is always a danger of getting lost if the journey is not ended before night falls.

You can see two caravans on the chart. One is ready to start on its journey. The camels stand in line and soon begin to move off. The people draw their cloaks around them and all go gladly on their way, knowing that there is another oasis at the end of the day's journey.

Do you know—

- (i) What a camel is called because it travels so well through the desert?
- (ii) What it carries inside the hump on its back?
- (iii) What the Arabs and camels do when a storm begins to blow in the desert?

SOMETHING TO DO

(i) There are many other things that you will like to know about life in the desert. Look for a book in your library, and ask your teacher to tell you more about desert life.

(ii) Make a desert oasis on a large tray. For the desert, spread sand all over the tray. *The Pool*: put a piece of glass at one corner of the tray. *Palm-trees*: make some paper rolls about twice as long as you wish the trees to be. Paste the edge of the paper along the trunk so that it will not come undone. Cut down the roll from one end, as far as the middle of its length, to form strips. Press these downwards and snip their sides to look like palm-leaves. Paint the leaves green and the trunk chocolate-brown. To fix the palm-trees, press a small piece of plasticine at the trunk end of each tree, and with this press each one to the tray, close to the pond. Draw the sand around them so that the plasticine cannot be seen. *People*: the travellers can be drawn on folded paper, coloured, and cut out around the edge of the drawing. When the folded paper is opened each figure will stand or sit as drawn. People can also be made with plasticine or clay and clothed with loose cloaks and head-dresses cut from soft coloured paper. *Camels*: model these with plasticine or clay: some might stand

in caravan order while others rest on the ground. *Tents*: make these with matchsticks and brown paper or brown hessian. As you work look carefully at the pictures on the chart. They will help you to make your work really like the things and people shown there.

(iii) Write about a journey you have taken. Draw pictures of yourself going on the journey.

LIFE IN BIBLE TIMES

Chart 2: Manna in the Wilderness

THIS chart tells a story about the people of Israel who lived long ago. God promised them a land where they could work and be happy. To reach this Promised Land they had to take a long journey through the Desert of Sinai.

With Moses as their leader, they started on their way carrying water in bottles made of skin, and food in their bags. At night they rested at an oasis like the one you can see on Chart 1.

Day after day they travelled until one day they found that they had no bread to eat. The people became angry when they heard that there was no bread. They went to Moses and said: "You have brought us into the Wilderness to die of hunger." Moses was very troubled when he heard this and he prayed to God, asking Him to remember His promise and send bread to His people. Next morning when the Israelites awoke they were surprised to see the ground covered with small white round seeds. Moses was full of joy when he saw them, because now he knew that God had heard his prayer. He called all the people together and said to them: "This is the bread that the Lord has given you to eat." When the Children of Israel ate the food they found that it was good and tasted like honey, and they called it manna. From that day God sent the manna to feed them daily until they reached the Promised Land, and so they always had enough to eat.

On Chart 2 you will see a picture of Moses standing with his arms lifted up thanking God because He has heard his prayer, and sent food for the people. Near to Moses you can see some of the children of Israel stooping down and gathering manna. They are putting it into their baskets and dishes. Look at them as they gather their bread. They are dressed like the desert travellers whom you saw on Chart 1. Like them they journeyed with camels. They also rode on small asses. There is a picture of one on this chart.

The desert of Sinai was a great desert of sand and hard rock, and so the children of Israel had to protect themselves from the sun and to rest in tents when there were no trees to shelter them.

SOMETHING TO DO

(i) The whole of this wonderful story is not written here. Ask your teacher to tell it to you and also to tell you the story of how God gave water to His people when they could not find any in the desert.

(ii) Make a book about life in Bible times. In it write this story about God's great gift of bread to His people.

(iii) Write the story of how God helped Moses to find water for the children of Israel.

LIFE IN BIBLE TIMES

Chart 3: A Walled City

CHARTS 1 and 2 tell you how people travelled through deserts long ago.

On Chart 3 you will find a picture of a city with some of its buildings, and people who lived in Palestine when Jesus was a boy.

The City Wall. Look at the high wall. In those long-ago days a wall like this was built around every city because the people were afraid that enemies, wild animals and other dangers might come from the desert and hurt them.

The City Gates. Large gates were built in the wall. They were kept open all day long so that travellers and animals carrying heavy loads might pass in and out of the city. At night the gates were shut and kept locked until the next morning. There were no motor-cars in those days, and asses and camels did most of the work of carrying goods from one place to another. Men often rode on beautiful horses, but they did not use them to carry loads because camels and asses could journey more easily over the hot desert lands.

On the chart you can see an ass with a burden on its back and another one carrying its master. Asses are small and could pass easily in and out of the city gates. Camels are very big animals: so their masters had to take great care of them, when they travelled through a gate bearing a heavy load on their backs. When the large city gates were closed at night, a small door cut in the gate could be opened to let a late traveller enter the city, but it was much too small for a camel to go through.

Buying and Selling. During the day-time many people went in and out of the city through the large gates and near them they often met and talked with their friends. Look at the shop just inside the gate. Notice that it has no windows. Many people would stop at the shop and buy what they needed as they came and went.

Men used to stand near a gate to sell their goods, and on hot days they liked to sit on the ground and rest while they waited for customers. Some men carried water in large skin bags and sold it to people when they were thirsty.

The Well. Look at the picture of the well. The water in it is deep down

in the ground so that it is always fresh and cool. When Jesus was a boy there were no water-taps in the houses. Every day women went to the well with large earthen jars to get the water they needed. They tied a rope around the neck of their jar and let it down into the water. When it became heavy they knew that it was full. Then they drew it up with great care so as not to break the jar or the rope.

The House on the Wall. Do you see the steps in the wall? They go up to a house which is built right on to the wall. In the wall there is an open space which looks like a window without any glass in it and this is just what the opening is meant for. People looked through openings in the house wall when they wished to see into the world outside. As this house is built on to the wall the people would be able to see what was coming from the desert or from a city far away. Sometimes they would see a caravan of camels like those shown on Chart 1.

The Roof. Look at the roof of the house. It is flat and not a bit like the roofs on most of our houses. In Palestine the nights are sometimes very hot and then many people sleep in the open air on their roof-tops.

SOMETHING TO DO

(i) Make some water-jars with damp red clay.

(a) Roll some clay into the shape of a worm about a quarter of an inch thick and two inches long.

(b) Take one of the rolls and coil it round and round to make the bottom of the jar. Draw the rolls close to each other with your finger-nail so that you cannot see them any more.

(c) Build up the sides of the jar by placing a roll of clay on the bottom piece, close to its edge. Continue to coil on top of this until the jar is as high as you want it to be. Join the end of each new coil to the one before it by putting a spot of water on its end and pressing it flat on to the end beneath it. Press each roll lightly with a finger-nail, down on to the roll beneath it and, when all are on, smooth the side of the pot with a damp (not wet) finger so that no rolls can be seen. Make the top of the jar smaller than the side and add one last roll to form the rim.

(d) To dry the jar, place it, when finished, on an earthenware dish or broken piece of flower-pot and put in a dry cupboard for two days. Then, with some clear varnish, paint it both inside and outside. Return it to the cupboard and leave for two or three days to dry. Do not put the pot in a hot place. It may stand on a window-sill to dry if there is not likely to be much dust in the room. Jars made in this way should hold water quite well and can be used for flowers. Of course the water-jars used when Jesus was a boy were not varnished. They were dried and then baked in a hot fire until they were dry enough to hold water. Perhaps

your teacher can show you how to do this, and then your pots will last a long time if you use them carefully.

(ii) Write about this walled city in your book.

(iii) There are still walled cities in many countries. Try to find a book about them in your school or in the children's library of your town. In England there are cities in which you can see old walls. Perhaps you could visit one and walk on it as the people did long ago.

LIFE IN BIBLE TIMES

Chart 4: Jesus in the Temple

WHEN Jesus was a boy he lived in a small town in Palestine called Nazareth. The largest city in Palestine was Jerusalem. It had a high wall built all around it like the one you can see on Chart 3.

Once a year the people who lived in the small towns and villages liked to go to Jerusalem to visit the Temple which was their large and beautiful church there. Look at the high arches and strong walls in the picture of the Temple on Chart 4. They are indeed wonderful and beautiful.

When Jesus was twelve years old He was taken by Joseph and Mary, His parents, to visit the Temple in Jerusalem. When the time came for them to go home, Joseph and Mary started on the journey, thinking that Jesus was travelling with friends in the same caravan. At the end of the first day, when He did not come to them, they became very anxious and asked many people if they knew where He was, but no one had seen Him.

At once Joseph and Mary left the caravan and went back to Jerusalem. For three days they searched and searched. At last on the fourth day, they found Him in the Temple, speaking with the learned scribes and teachers and answering their many questions.

In the picture on Chart 4 you can see the scribes and teachers wearing their long robes, with Jesus standing in front of them. Notice that no one is wearing shoes. In those days people always took off their shoes when they walked into the House of God. Look at the rolls which some of the scribes are holding. These are their books. They did not have any like the ones we use to-day. Most writing was done on sheets of parchment, a very strong material made from sheepskin. When a sheet of parchment was not being used it was rolled up and tied with a cord so that it might not come undone.

Joseph and Mary stand by the Temple door. How tired they look after their long search; but when they heard how well Jesus answered the questions that the scribes and teachers asked Him they became surprised and happy. Soon they were filled with great wonder as they listened to the questions which Jesus asked the scribes and teachers. When He had finished

speaking with the great teachers in the Temple, Jesus went to His parents and they travelled gladly together to their home in Nazareth. Mary often thought of the wonderful words which she heard Jesus speak to the scribes and teachers when He was in the Temple.

SOMETHING TO DO

- (i) Ask your teacher to read this story to you from the Bible.
- (ii) Make a book like the ones that were used when Jesus was a boy. Take a piece of paper and write on it the story of Jesus in the Temple. When you have finished paste a narrow piece of stiff paper at each end of the sheet. Put it under a heavy book or weight until it is dry, then roll up the sheet and tie it with a piece of ribbon or cord.
- (iii) When Jesus grew to be a man, He did many things to help people who were unhappy or in trouble. In your own book write about one of the people He helped.
- (iv) Write about the work which you would like to do when you grow up.

LIFE IN MODERN TIMES

Chart 5: The Street—People to Look For

ON this chart you will find pictures of people whom we meet every day in the street. How many do you know?

Look at the *news-vendor* with his newspapers ready to sell. How quickly and carefully he folds each one as he hands it to a busy man who hurries past him!

We all like to see the *flower-seller* in the street and to buy some of her beautiful flowers to take home with us.

The *costermonger*, with his barrow of fruit, stands near to the pavement curb. You can buy fruit from him and watch him weigh it carefully on his scales.

The *postman* is busy all day long, bringing letters to our houses or collecting others from the street letter-boxes. He takes the letters to the post office, where they will be sorted and sent to the people to whom they are addressed.

Look at the *road-sweeper* with his broom. His hand-cart is close to him so that he can put into it the rubbish that he sweeps up from the street. We must try to help him by never throwing anything on to the paths or road.

The man with the *pneumatic drill* works hard with others to keep our roads in good repair, so that people, cars, buses and other vehicles can travel safely and smoothly along. In the picture he is busy drilling a hole in the ground. What a noise he makes as he drills up the hard surface! There are many things under the road that must be kept in good repair. The man is always ready to come with his drill and break the road surface for the men who are waiting to mend broken pipes or damaged wires.

SOMETHING TO DO

(i) Make a book about the street. On different pages draw a picture of each of the people shown on Chart 5. If you cannot draw them, take a thin piece of paper and put it over one of the chart pictures, then trace the drawing on to your paper and paste it into your Street Book.

(ii) When you walk in the street look for each of these people. Notice where they stand and where they keep the goods that they sell—

The News-vendor. Write down the name of each paper he has for sale.

The Flower-seller. Look at the flowers and write their names in your book, opposite to your drawing. Ask Mother or a friend to tell you the names of those which you do not know.

The Costermonger. Write the names of all the fruits on his barrow. Every time you pass, notice any fresh kinds of fruit that he has there.

Model some of the fruit with clay and paint it to look like real fruit.

LIFE IN MODERN TIMES

Chart 6: The Street—People to Look For

HERE on Chart 6 you can see pictures of more people who work in our streets.

Look at the two *firemen* as they spray water through their hose on to a fire. They wear bright metal helmets to protect their heads from the fire and water as they work. We are glad to know that these brave men will always come to put out a dangerous fire.

Near the men you can see their fire-engine. On it there is a big bell which they ring loudly as they drive through the streets when they are in a hurry to reach a fire. Look at the long ladder on the fire-engine. Do you know why it is there?

Now look at the *ambulance*. It has the letters L.C.C. painted on it. If you do not know what these letters mean ask your teacher to tell you. Kind and careful men will bring an ambulance to your house if someone is ill and needs to be taken to hospital. Sometimes a man or a child is knocked down in the street and hurt. Then the ambulance men come quickly and take the injured one to hospital. Boys and girls must cross the road with great care when they walk in the streets, so that they are not knocked down and hurt by the moving traffic.

Next on the chart you can see the *engineers* at work. They are testing electric wires which are under the ground. The man with the tube on his chest is speaking through it to another man at the other end of his wire. Electric wires, in a street, must be kept in good order so that people can speak by telephone. Do you know anything else in the street that needs electric wires to make it work?

Now find the picture of the *lamp-cleaner*. With his long ladder he goes from lamp to lamp in the street, seeing that each is kept clean and bright. If there are gas lamps he puts in new mantles when the old ones are broken. He also puts new bulbs into the electric lamps when they are broken. He knows that we need bright shining lights to find our way home when the dark night comes.

There is also a picture of a *dust-cart*. Dustmen come to our houses to take away all the rubbish that we do not need. We are glad to see them because they help to keep our homes and streets clean and tidy.

SOMETHING TO DO

- (i) Draw or trace these pictures and put each on a separate page in your Street Book. Write the names by the side of each and say why it is in the street.
- (ii) Write about a man whom you have seen at work in the street.
- (iii) Many more people work to keep our streets in good order. Look for them as you walk about, write their names in your book and say what you saw them doing.
- (iv) Paint a large picture showing one of these men at work in the street.
- (v) Look at both Charts 5 and 6 and find pictures of men who keep the things which are under the road in good repair. Write the names of the men and say how they do the work.
- (vi) If you can use wood or cardboard, make one of the vehicles that you see on the chart. When it is finished draw a picture of it in your book and say what it is used for in the street.

LIFE IN MODERN TIMES

Chart 7: The Street—Things to Look For

ON this chart there are pictures of things that have been put in the street to help people to use it well.

Crossing the Road. When you wish to cross a road look, first of all, to see if there is a Zebra crossing nearby. If there is, go to it and wait until you are sure that no road traffic is moving on or close to it. Then walk straight across the Zebra with quick and steady steps.

Sometimes you will see a policeman directing traffic near a Zebra crossing. Watch him carefully and walk over the road only when he gives the signal for you to go.

Where there are no Zebra crossings, look carefully for other signals which may be placed on or near the pavement to show how and when you may walk safely over the road.

Road Numbers. On the chart, at the end of the main road you will find a lamp post with the number "30" on it. This sign is there to tell drivers of vehicles that they must drive carefully and not travel more than thirty miles an hour.

Two Special Signs. Now look carefully on the chart and first of all find the sign that has the word "school" marked on it. When drivers see this sign they know that there is a school nearby and they take special care to look out for children so that they do not hurt them. Children must also be careful as they come out of school, and walk slowly along the pathway. This will help drivers to see them and so prevent accidents.

The next sign says: "Halt, Major Road Ahead." You will find it marked on the chart, in the side road. If you ride a bicycle you must always look for this sign. It warns you that there is a more important road just in front of the sign, where the traffic may be moving very fast. Every rider or driver of a vehicle must stop before going into a main road, even if there is no traffic to be seen there. If this is not done there is great danger of being knocked over and hurt by a quickly travelling vehicle.

Four Most Useful Things in the Street. The artist has put on this chart four more

drawings which show things of special use to people in the street. First of all, look at the *telephone-box*, which may be used by anyone who wishes to do so.

The *letter-box* is also a great help to many people, who may post their letters in it instead of walking a long way to a post office.

The *fire-alarm standard* is used to call a fire-engine when it is needed in a hurry to put out a fire.

The last drawing shows a *police-box*. The policeman is our good friend in the street. He watches to see that we are safe and that the traffic does not travel too quickly. If you are lost or in any trouble when you are in the street, go to a policeman at once. He will always help you.

When a policeman needs to send a message he will go to a police-box and use the telephone there.

SOMETHING TO DO

Now that you have seen three charts showing some of the people and things for our use in the street, you may like to make a street in your classroom.

(i) To do this, look carefully at the pictures on the three charts, Nos. 5, 6 and 7. There you will see how to make vehicles and street-signs with empty cardboard cartons, small wooden boxes, nails, pieces of stiff card or paper, and paste.

How to Begin. Lay some sheets of brown paper on the top of a table and draw two roads on it, as you see them on Chart 7. Draw a pathway on both sides of each road. Take a box or piece of stiff paper and make a vehicle or sign to put on the road or pavement.

Pavement Figures. People for the pavements can be drawn on double paper with a fold at the top. When the drawing of a person or dog is finished, cut it out, leaving part of the fold at the top. Colour on both sides. Open the folded paper and stand it up in the street.

You will enjoy watching your street grow. When it is finished each child who has made something could take it home and so remember the street made at school.

(ii) Draw a street in your Street Book and put into it all the street-signs that you know. Beneath your pictures write the name of each sign and why it is in the street.

(iii) Write about a journey that you have taken by bus or car.

LIFE IN MODERN TIMES

Chart 8: Home-making

Most boys and girls like to make a play-house. This chart shows one which is easy to make and many things that you will enjoy doing in it.

Walls. The drawings on Chart 8 show four stages in making the walls. Use four 1 in. builder's laths for each wall. They can be bought from an ironmonger or builder's yard.

Place two laths on the floor for the top and bottom of a wall. Then put one near the end of each top and bottom lath to form the sides. Bind them together firmly with soft string or raffia at each corner where they cross, and tie the ends so that the laths cannot move. Before tying, make sure that the wall-frame is as large as you wish and that each opposite lath is the same length.

Finishing the Walls. To finish, cover each frame with some kind of material such as—

- (i) Brown or coloured hessian, which may be bought at a draper's shop.
- (ii) Large sheets of brown paper.
- (iii) 1 lb. weight straw-board. Both paper and straw-board can usually be bought at a stationer's shop or printer's works.

It is easy to tack straw-board to the frames, because it is stiff and firm.

Hessian and brown paper must be carefully folded along all its edges. Then place one folded edge along the top lath of the frame and tack it to the wood beneath.

Next place the side edge of folded material down the side lath nearest to it and tack firmly. Then place the opposite side fold along the opposite side lath and tack down.

Last of all tack the bottom fold to the lower lath. If you wish to do this really well you should measure the sides of your frame and the material before you begin to tack them together.

You can see how to cut out a window in one of the drawings on the chart.

Rooms. When sufficient walls have been made, tie them together at the

top and bottom corners, close to where the laths cross. If this is done with a good knot, the walls should stand well.

Furniture. Most of the furniture that you see inside the house was made with empty orange- and apple-boxes, which a greengrocer will often sell for a few pence if you tell him why you want them.

Living in the House. Look at the pictures of children busy with their play-house jobs. You will enjoy doing some of them and will very likely find many other jolly things to do.

SOMETHING TO DO

(i) Draw a picture of your play-house in your Street Book. Put yourself in the picture and write down what you are doing.

(ii) Write down what you would need if four people came to tea. At what shops might you buy the food for your tea-party?

LIFE IN MODERN TIMES

Charts 9 and 10: The Grocer's Shop

CHART 9 shows the inside of a grocer's shop. On the counter and shelves behind it you can see different kinds of goods for sale, such as jam, sugar, butter, tea. The cashier sits at her desk ready to receive money and to give change to customers. There are no shop-assistants or customers on this chart. If you look at Chart 10 you will find them and also pictures of more goods which are sold in a grocer's shop.

Chart 10 shows the grocer's shop. Read the names printed beside the grocery goods on this chart: flour, tea, sugar, butter, cheese, meat, pickles, biscuits, cereals, salmon, spices, sardines, cocoa, tongue, sweets. Now find the pictures of the salesman, the saleswoman and the customers. There are seven customers: four women, one man, one boy and one girl. There is also a dog, who will need some dog biscuits for his dinner.

If you take a pair of scissors and cut out the pictures on this chart you will be able to use them with Chart 9 to play at keeping shop. Cut carefully on the outside line of each picture. As each one is cut out, put it into a box where it will be safe until you want to use it in the shop.

On Chart 9 there are some straight black lines. Cut through them with a pocket knife or a pair of scissors with a sharp point. When you have done this you will be able to put the cut-out pictures into the slots where the lines were drawn.

Keeping Shop. First take some of the pictures of goods from their box and put them into the cut slots on Chart 9. Put the salesman and saleswoman behind the counter and some customers in front of the counter.

Choose two children in your class to be cashiers to receive money and give change; and also choose two for the salesman and saleswoman and others for the number of customers you have put on the chart.

Selling and Buying. In order to play this game properly each boy and girl customer should buy goods that one of the customers on the chart would be likely to buy. This will need a little thought, but you will find it great fun if you do it.

One woman customer might need 1 lb. tea, 1 lb. sugar and 1 tin of cocoa. The man might ask for 2 lb. dog biscuits and 1 lb. tomatoes. What do you think the boy and girl would buy?

Each customer can have several turns at buying, if not more than three things are asked for each time.

Paying for Goods Bought. As there are only two shop-assistants, only two customers can buy at one time. When they ask for what they need, the salesman or saleswoman will give each the card on which is printed the name of what has been asked for and the price.

The customer must then take the cards to one of the cashiers, who will see the price marked on the card. Then both cashier and customer should write the prices on a piece of paper and add them up. If the answer is the same on both papers the customer will pay and if necessary the cashier will give the change.

If you are not quite sure that your bill is added up rightly, ask your teacher to look at it. At the end of your play write your name on each bill and ask your teacher to see that they are right. You will be very happy when she says they are all quite right. While one customer is paying another should buy and when all have bought the first customer can buy again, and then the second customer.

When it is time for the shop to close the cashiers must add up the money they have taken and write down the amount very carefully in a Shop Sales Book.

Money. Pennies and halfpennies can be made by cutting circles of the right size from a piece of brown cardboard. Place a penny or halfpenny on the cardboard and draw round it with a black pencil. Cut round the drawn line. Use the first two cut-out coins to draw round for the rest of these coins. Silver paper can be used to cover brown cardboard for silver money. The best coins to make are $\frac{1}{2}$ d., 1d., 6d., 1s., 2s. and 2s. 6d. You will need to make plenty of each kind.

Bank. You might like to make a bank in your classroom, where you could put your money to be taken care of, when you do not want to use it.

SOMETHING TO DO

(i) Make a book about shops. Write the name of your shop in it and say what is sold there.

(ii) Write down what you buy each time you go to the shop and put the price

by each name. Then add up the figures to see how much you have spent. You can set down your shopping like this—

	s.	d.
I bought Jam .	. 1	0
Flour	. 2	2
Tea .	. 1	4

(iii) Ask your teacher to show you how to write bills. You will need to know this when you take your turn as salesman or cashier.

LIFE IN MODERN TIMES

Charts 11 and 12: A Shopping We Will Go

ON Chart 11 there are pictures of five shops which you are likely to see in a street. They are—(i) Grocer's Shop; (ii) Chemist's Shop; (iii) Newsagent's Shop; (iv) Greengrocer's and Fruiterer's Shop; (v) Butcher's Shop. Can you think of any more shops that are not on the chart?

On Chart 12, you can see things that we need if we keep a shop. They will help you to play at keeping shop.

Aprons. Look at the two aprons, one for the salesman and one for the saleswoman. You can make them with hessian sewn with brightly coloured wool or thread.

Purses. These can also be made with hessian and coloured wool or any other strong material that you can find.

Scales. Most shops need a pair of scales. The two pairs shown on this chart are quite easy to make. The first pair is made with the cover and bottom of a round cheese-box. This pair of scales is used as it hangs up in the shop.

The second pair is made from round flat cake-tins and the cross-bar from $\frac{1}{4}$ in. dowel wood.

Stock-keeping and Accounts. The open book on the chart is a Stock and Account Book, which is quite easy to keep. At the top of one page the word "Stock" is written. Beneath it are written the names of all goods for sale in the shop with the price marked by the side of each name. All fresh goods coming into the shop must be written down, with their price beside them.

Sales. This word is written at the top of the next page. Every day, after the shop is closed, the cashiers should look at their sales tickets and find out what has been sold and how much money customers have paid. One cashier must then read aloud from the tickets and the other cashier write down the names of goods sold and money paid for them on the sales page of the Stock Book.

When you become clever shopkeepers you will have to keep two books, one for sales and the other for goods in the shop. The Goods Book will show when you need to order fresh supplies to sell in the shop.

SOMETHING TO DO

(i) In your own Shop Book draw a picture of a shop that you would like to keep. Put yourself in it, selling to a customer. Under your picture write the name of the shop and the goods that you would sell there.

(ii) Write down the things that mother would need to buy for dinner for father, two children and herself. From what kind of shops would she buy the food?

(iii) Write about one shop and say from where you think the goods come that are sold there.

LIFE IN MODERN TIMES

Chart 13: A Shopping We Will Go

HERE are pictures of three shops that can be made in school—a toy shop; a fruit and vegetable shop; and a sweet-shop. There is also a post office where you could buy stamps and send letters and postcards to your friends in school.

Starting a Shop. Empty orange-boxes can be used to make the shop-counter. 1 in. wooden laths nailed to them will make the top of the shop, where the name of the kind of goods for sale can be written. Look on Chart 13 at the picture of the shop you have chosen to keep. There are many things in it which you could make with paper, empty boxes, bits of wood and other odds and ends of material. When they are made, put them in the shop and be sure that a price is marked on each.

A Clock. On a stiff piece of paper or card draw a large circle. This may be done by placing a plate on the card and drawing round it. Write the figures 1-12 inside the circle, as you see them on a clock. Cut out two hands, one long and one short, and fix them to the centre of the clock with a strong paper-fastener. Hang the clock close to your shop.

Notices. Write notices on two pieces of stiff card. On the first write "OPEN," and on the second write "CLOSED." Tie a piece of string at the top of each card so that it can be hung up. When the shop is open, hang Card 1 where everyone can see it. When it is closed hang up Card 2, and turn the clock hand to show the time when it will be opened again.

Keeping the Shop Stocked. Keep one book and write in it all the goods you have for sale. Keep another book and write in it what you have sold and what customers have paid. You can see how to do this on Chart 12. When you find that you need more goods to sell in your shop you must write a letter to a factory where they are made. You could write like this—

Dear Mr. Jones,

We have sold all the goods that were made in your factory. Our customers liked them very much. We shall be glad if you will make some more ships, dolls and balls and send them to us.

Yours truly,
JOHN BROWN

Send this letter to your teacher, or to one of your class-mates, who will read it aloud to the whole class. Then write a reply to the shopkeeper like this—

Dear Mr. Brown,

We are glad that you like our toys and that they have sold well. We shall make the ones that you ask for and send them to you as soon as they are ready. We shall also send some of our new toys, to see if your customers like them.

Yours truly,
TOM JONES

After this everyone will set to work and make something for the shop. When they have finished, the shop can open again.

Buying and Selling. Sometimes a boy or girl wishes very much to keep the toy that he or she has made. This can be done quite well if the maker tells the shopkeeper not to sell it to anyone else. Sometimes Mother and Father order what they want at a shop. Then the shopkeeper does not sell what they have asked for, but keeps it until it is called for. This is what can be done when someone in your group wants a particular thing. Of course, the maker might make several of the same kind of toy. Then one could be kept at the shop for him and the others sold.

LIFE IN MODERN TIMES

Chart 14: Weights and Measures

CHART 14 shows you three kinds of measure. They are used in our homes as well as in shops.

Measures of Weight—1 oz., $\frac{1}{4}$ lb., $\frac{1}{2}$ lb., 1 lb. The grocer and greengrocer use these to make sure that customers get the right weight. Mother uses them to weigh flour, sugar, and other things that she uses to make a pudding or cake.

Liquid Measures— $\frac{1}{2}$ pt., 1 pt., 1 qt. These are used by the milkman. Your milk is usually brought to school in bottles which each hold $\frac{1}{3}$ pt.

Measures of Length—1 in., 1 ft., 1 yd. You can use these to measure the length of wood needed for your shop-front and also to measure how tall you are and how far you can jump from one spot to another.

Ask your teacher if you may have these weights and measures in your classroom.

SOMETHING TO DO

Use the scales to weigh these things.

(i) Weigh 1 oz. sand, 2 oz. sand, $\frac{1}{4}$ lb. sand, $\frac{1}{2}$ lb. sand, 1 lb. sand.

Put each lot into a bag and notice the difference in the size.

(ii) Weigh $\frac{1}{4}$ lb. sand, $\frac{1}{4}$ lb. shells, $\frac{1}{4}$ lb. acorns.

What do you notice about each $\frac{1}{4}$ lb.?

(iii) Write in your Shop Book the number of oz. in 1 lb., the number of $\frac{1}{4}$ lb. in 1 lb., the number of $\frac{1}{2}$ lb. in 1 lb.

Liquid Measure

(i) Fill a $\frac{1}{2}$ pt. bottle with water and pour it into a 1 pt. bottle. Pour in more $\frac{1}{2}$ pt. until the 1 pt. bottle is full.

(ii) Fill the 1 pt. bottle from $\frac{1}{2}$ pt. and $\frac{1}{4}$ pt. bottles.

Write in your Shop Book how many $\frac{1}{2}$ pt., $\frac{1}{4}$ pt., and $\frac{1}{3}$ pt. make 1 pt.

Measure of Length

(i) Draw in your Shop Book a line 1 in. long, a line 6 in. long and a line 12 in. long.

Write down the number of inches in $\frac{1}{2}$ ft., the number of inches in $\frac{1}{3}$ ft. and the number of inches in $\frac{1}{4}$ ft.

(ii) Measure and write in your book the length of your desk, the height of your friend and your own height.

Ask your friend to measure you. Measure the length and height of more things and write each in your book.

(iii) How many inches are there in $\frac{1}{3}$ yd.? How many inches are there in $\frac{1}{4}$ yd.? How many inches are there in $\frac{1}{2}$ yd.?

(iv) When you are in a shop, look and see what measures are used. Write in your book the name of the shop and the measures used and what each was used to measure.

TABLE OF ABBREVIATIONS

oz.	=	ounce
lb.	=	pound
pt.	=	pint
qt.	=	quart
in.	=	inch
ft.	=	foot
yd.	=	yard

LIFE IN MODERN TIMES

Chart 15: Money We Use

Ask your teacher if this chart may hang on the wall near to your shop. It will help you to pay the right money and see that you get the right change.

Make the coins shown on the chart with stiff cardboard. For silver coins cover the cardboard with silver paper.

The coin that is worth 3d. has twelve sides and is made of copper. It is quite a different shape from the other coins. Not long ago the threepenny-piece was a small round coin, made of silver, and so much like a sixpence that many people used to make the mistake of thinking that it was a sixpence. It was also so small that it was very often lost. Some people still have these little threepenny-pieces. Perhaps Mother may be able to show one to you. The new coin is much easier to find in your pocket or purse, because it is quite a different size, shape and colour from the sixpence.

SOMETHING TO DO

(i) Take your purse of money, or the till that you have made for the shop, and put on the desk: $\frac{1}{2}$ d., 1d., 3d., 6d., 1s., 2s. and 2s. 6d. Put 1s. in front of you and after it the number of coins which you can use to make 1s. like this—

				6d.		6d.						
				o		o						
				3d.		3d.		3d.		3d.		
				o		o		o		o		
1d.	1d.	1d.	1d.	1d.	1d.	1d.	1d.	1d.	1d.	1d.	1d.	1d.
o	o	o	o	o	o	o	o	o	o	o	o	o

Last of all place the $\frac{1}{2}$ d. needed to make 1s.

Now put the coins worth 2s. and 2s. 6d. on the desk and place beside them all the coins that you can use for them. Put them down in the same way as you put the coins for 1s.

(ii) Write in your Shop Book all the coins that make 1s., 2s. and 2s. 6d., like this:
 $6d. + 6d. = 1s.$; $1s. + 1s. = 2s.$; $1s. + 1s. + 6d. = 2s. 6d.$

(iii) Count out 20s. Cut a piece of paper the size of a £1 note like the one on the chart. Put it by the 20s. and then place by it the number of each of the following coins needed to make £1: 1s., 2s. 6d., 2s., and also make groups of 5s.

Write in your book how many 1s. make £1. Write like this: 20s. make £1.

Write down how many 2s., 2s. 6d. and 5s. make £1.

LIFE IN MODERN TIMES

Chart 16: Will You Have a Slice of Bread?

Do you ever think of all the work that must be done before we can eat a piece of bread?

The pictures on Chart 16 tell you the wonderful story of a small seed from which we get bread.

Ploughing. If you live in the country you will have seen the farmer working in his fields and if you live in a city you may have watched someone digging in a garden or allotment.

When a farmer decides to grow wheat, which is the name of the seed from which we get bread, his first job is to dig the field where the wheat is to grow. It would take a long time to do this with a spade, so a machine, called a plough, is used to do the work.

You can see a picture of a plough on Chart 16. It has sharp cutting knives which go down into the earth and turn the soil over as the horses move up and down the field. There is a seat on the plough where the farmer or ploughman sits and drives the horses, so as to be sure they plough every part of the field.

Harrowing. When the ploughing is finished, the field must be harrowed. Look at the harrow on Chart 16. It is really a large rake. As the horses draw it along it rakes away all the stones that might prevent the wheat seeds from growing.

Sowing the Seed. On a fine day, soon after the harrowing is finished, the farmer scatters wheat seed all over the field. Before long little green plants begin to shoot up. Day by day the farmer watches them. The rain falls, the wind blows, the sun shines, and taller and taller grow the green wheat plants.

Towards the end of summer the plants begin to turn yellow in colour, and at the top of each stalk there grows a cluster of seeds like the ones that were planted in the ground in the spring of the year. We call these clusters of seeds "Wheat Ears."

Soon the farmer will come with his men and harvest the wheat.

Cutting and Binding. When the stalks of the wheat plants become dry and

yellow the farmer will bring a large machine to the field. Look at the machine on Chart 16. The man on the seat drives the horses up and down the field and, as they move along, the sharp knives of the machine cut the stalks of the golden wheat plants close to the ground. Then, most wonderfully, the machine gathers the stalks into heaps, ties them into bundles, which are called sheaves, and lays them in a neat straight row right across the field. Wheat growing near the edge of the field, where the cutter cannot go, or blown down and broken by the wind, must be cut by a man using a scythe, like the one you can see on the chart.

Stooking. Soon after the wheat has been cut, men and women come and stand the sheaves together in groups of six or more. These groups are called stooks. The ears are put at the top of the stook for the sun and wind to dry them. Before long the sheaves are dry enough to be loaded on to a wagon and taken to the threshing machine.

Threshing the Wheat. Look carefully at the picture of this most important machine. Wheat sheaves are put into it at one end. Then the man sets the machine beating and threshing until at one side of it out come the long yellow straw stalks and at the other side the beautiful golden grain pours into sacks placed ready to receive it.

The straw is piled into high heaps called stacks and used to make warm dry beds for the farm animals, during the cold winter months. The sacks of wheat are loaded on to a large dray and taken to the miller whom you can see at work on Chart 18.

SOMETHING TO DO

To plant some wheat seeds take a large flower-pot or deep wooden box with holes in the bottom of it.

- (i) Spread small stones or pieces of broken earthenware over the holes.
- (ii) Lay fresh earth, with a little sand in it, on top of the stones to about one inch from the top of the pot or box.
- (iii) Water the earth gently through the rose of a watering-can and leave it to stand for a few hours.
- (iv) Buy some wheat seeds at a corn-shop and scatter them lightly on to the damp earth. Cover with a thin layer of earth and pat gently on top of it. Place a piece of paper on top of the pot or box until the seeds begin to send up little shoots.
- (v) Remove the paper and put the young plants where they can get light and sunshine. Water occasionally, keeping the earth just damp.
- (vi) When the weather is fine or there is a soft rainfall, put the plants out of doors so that they may be freshened by the light, air, sunshine and gentle rain.

Remember that too much watering is as bad as too little. Watch the plants and you will soon see when they need water.

In time you will find a wheat ear growing at the top of each stalk. You may need to tie a piece of thin string around it to prevent the plant from bending and breaking.

(vii) When the stalks begin to turn yellow, cut them near to the earth with a large pair of scissors. Put them on a piece of paper and place them in the sunshine to dry for two or three days. Then beat the seeds out of the ears by lightly tapping them on a paper. Put them to dry for about a week and then store in a covered tin until needed. On Chart 18 you will learn what to do with them.

The straw can be used for a rabbit hutch or be woven together to make a bag.

LIFE IN MODERN TIMES

Chart 17: Will You Have a Slice of Bread?

WE do not grow enough wheat in England for all the bread we need, so we must buy some from other countries. I expect you have heard of Canada. Perhaps you have relations or friends living there. In that large country many people work hard to grow wheat.

Growing the Wheat. On Chart 17 there are pictures that show how wheat is grown. In Canada the fields are much larger than our English ones and so are the ploughs, tractors, cutting and threshing machines. In England one machine usually cuts the wheat and another threshes out the corn. In Canada one machine often does both these things. It is called a *combine harvester and thresher*.

Transporting the Wheat. Look carefully at the two maps on the chart. One shows part of Canada and the other the British Isles. Wheat from Canada must be sent by ship across the Atlantic Ocean before it can reach us. After the wheat has been threshed by the Canadian farmer it is sent by motor-truck to a sea-port and kept there in a storehouse called a silo, until an Atlantic grain-ship is ready to bring it to England.

On the chart you can see pictures of a prairie transport motor-truck, wharf silo, and Atlantic grain-ship. A silo is a tall building that is quite air-tight. In it the grain can be kept dry and fresh until the time comes for it to be loaded on to a grain-ship and brought across the ocean. It is interesting to watch wheat being loaded on to a ship. The grain is carried on a broad rubber band from the silo right into the ship. When the grain is unloaded, a large suction pipe draws it from the ship straight into a large silo.

SOMETHING TO DO

(i) Take some pieces of wood. Look at the pictures on the chart and make a motor-truck, or a silo, or an Atlantic grain-ship.

(ii) Make a book of your own about wheat-growing. Write in it how wheat is grown in England and in Canada; also how it is sent from Canada to England.

(iii) Draw some of the machines used by farmers who grow wheat. Paste them into your Wheat Book.

LIFE IN MODERN TIMES

Chart 18: Will You Have a Slice of Bread?

ON this chart there is a picture of a grain-ship unloading wheat that it has brought from Canada. Look at the suction pump, which is drawing the grain from the ship into a large silo where it will be stored until it is needed.

There are also pictures of mills that were used long ago to crush wheat and grind out the flour.

Stone Handmill. This is the oldest kind of corn mill that we know. The women are using two heavy round stones, one on top of the other. They have put grains between the stones. As they turn the top stone it crushes the grains and out of them comes the flour that we need to make our bread. Amongst the flour there will be some hard bits of shell. These must be sifted away before the flour can be used.

Old French Watermill. This mill is built by the side of a stream. Look at the big wheel. It is in the water and as the stream flows along it makes the wheel turn. Inside the mill there are two grinding-stones, much larger than the two used by the woman with the handmill. The mill wheel is fastened to the grinding-stones and as it turns round and round it makes the stones crush the grain which has been placed between them.

Old Windmill. On this mill the wheel is turned by the wind. Notice that it is placed high up on the mill so as to catch all the wind. As the wheel turns it makes the grind-stones inside the mill turn and crush the grain just as the water-wheel does.

In England we still see wind- and watermills but nowadays they are not used to grind grain. Sometimes people are glad to use them to pump water up from a river. To-day, the miller grinds grain between large rollers, which are turned by a big machine. This does the work more quickly than it could be done by wind- and watermills.

SOMETHING TO DO

- (i) Make one of the old grind-stone mills.

Find two flat stones about three inches across. Look for ones that are round or nearly round in shape. Put one on top of the other and place them on a clean strong

piece of paper. Lift the top stone and put some of the grain that you grew between the stones. If you have none, buy some wheat from a cornshop. Now replace the top stone on the under one and get a friend to help you turn it round and round. As you turn the top stone press it hard down on to the bottom stone. Soon the wheat will be crushed into flour. Blow away the hard pieces of seed shell that you find amongst the flour. Grind as much wheat as you can and put the flour into a tin where it will keep dry.

(ii) Make a small windmill.

This will be easy to do if you look carefully at the picture on Chart 18. Make the grinders inside the mill and also the wind-wheel outside with pieces of stiff card.

Take this out of doors on a windy day and see if it will blow the wheel round and round. You may be able to make the wheel turn by blowing hard on it yourself.

LIFE IN MODERN TIMES

Chart 19: Will You Have a Slice of Bread?

THE pictures on this chart show how bread is made to-day in a large bakery. The sacks of flour have arrived from the miller and the baker is busy with the machine which mixes the flour into dough.

Making Bread Loaves. When it is well mixed, the dough is taken to another machine which cuts it into loaves of just the right size and weight. Then the weight of each loaf is carefully tested on a pair of scales before it is put into the great oven to bake.

The Baker's Shop. When they are baked and cool the loaves are taken to the baker's shop where we can buy them. The woman in the shop has come to buy bread for her family. The loaves are of three different shapes. Which shape do you like best?

The baker often sends a man with bread to the houses of his customers. On the chart you can see a delivery man with a basket of bread on his arm. He is just going out of the shop. There is also a delivery van in the road outside. Mother is glad when the delivery man brings bread to the house. This saves her a great deal of time when she is busy at home.

There is much more that you can learn about bread. Try to find a book about it at school or in a children's library.

SOMETHING TO DO

(i) In your book about bread write the names of all the machines that are used by the farmer, the miller and the baker to grow wheat and make bread.

(ii) Many good things to eat are made with flour. Ask your teacher to help you to make some sweet biscuits. Be sure to weigh everything you use. You will find the right weights to use on Chart 14.

Recipe for Sweet Biscuits

- (a) Weigh $\frac{1}{2}$ lb. flour, 2 oz. butter or margarine, 1 oz. sugar.
- (b) Use a wooden spoon to rub the flour through a fine sieve into a bowl.
- (c) With clean fingers rub the butter lightly into the flour.
- (d) Stir the sugar into the mixture.
- (e) Add a little milk and stir until it forms a soft but not wet dough.

Cutting the Dough. Shake some flour on to a dry wooden board. Put the dough on it and roll it flat to $\frac{1}{4}$ in. thickness. This can be done with a clean round bottle. Cut the dough into biscuits with a small tin cutter or cup.

Baking. Rub a little margarine over a flat tin, and sprinkle it with flour. Place the biscuits on the tin. Bake in a fairly hot oven for ten minutes. When they become a golden-brown colour, take them out and put on a plate. Sprinkle each with sugar. When cool, put them into a well-closed tin until you want to eat them.

If you like the biscuits write this recipe in your own book about flour and bread.

LIFE IN MODERN TIMES

Chart 20: On the Farm

CHARTS 16 and 17 show how farmers work to grow wheat, from which we get flour to make our bread and other things to eat. Many farmers do a great deal more work than this to provide different kinds of food for us.

On Chart 20 you will see pictures of a farm-house, fields, animals and people who work on a farm. Look at the farm-house, where the farmer lives with his family. Beside the house is a garden in which many vegetables grow, such as potatoes, carrots, cabbages and turnips. Beyond the stables is the orchard full of fruit-trees on which apples, pears and plums will ripen ready for you to buy in the shops. There are also small bushes on which blackcurrants, redcurrants and gooseberries grow.

Farm Crops. Beyond the orchard lie the fields where different crops are grown, such as wheat for bread, oats for horses, barley for hens and pigs. Potatoes, turnips and cabbages are often grown in the fields to feed animals and to sell in the market. Some fields must be kept for grass. Horses, cows, sheep, lambs and other animals need fresh green grass to eat. Some of it will grow tall during the summer and then be cut and dried into hay, and made into a rick ready to feed animals during the cold winter months.

Horses. Two horses are standing near the hayrick in the farmyard. They work hard all day pulling carts and wagons which carry hay, corn, vegetables and many other things to and from the fields and to other places where they are needed. They like to eat a little hay when resting from their work. Sometimes they rest in their special house, called the stable.

Cows. These also have their own house. During the day-time they stay in a field and eat the fresh green grass. Twice a day they are brought to the cowshed to be milked. In very cold and wet weather they sleep in their house all through the night and sometimes stay there during the day. Then they like to eat the sweet hay. During the summer they sleep in the field.

Milk. When the farmer and his helpers have milked the cows they pour the milk into large churns and send it to towns and cities so that people may have milk every day.

Poultry. At the side of this chart there are pictures of farm poultry. Hens and chickens, ducks and ducklings, geese and goslings, turkeys and turkey-poults. They all lay eggs, some of which we eat. Mother puts them into the cakes and puddings which she makes for you.

Butter and Cheese. The farmer's wife and daughters look after the poultry and collect the eggs. They also make butter and cheese from the cream and milk which come from the cows. Near the farm-house you can see the dairy where butter and cheese are made. At one side of the chart there is a picture of a separator which separates cream from milk, and a churn which makes cream into butter. Cheese is made from milk.

SOMETHING TO DO

(i) Make some butter. Ask your teacher to help you to make some butter. You can do it in this way.

Preparing the Milk. As soon as you come to school in the morning pour 1 pt. milk into a clean basin, put the basin into a bowl of cold water, cover it, and set it in a cool place. Leave it until you return to school in the afternoon.

Preparing the Cream. As soon as you reach school in the afternoon put the basin of milk into a saucepan of water. Be sure that it does not touch the bottom of the saucepan and that the water does not run into the bowl of milk.

Scalding the Milk. Put the saucepan on a medium gas heat and leave it there until the cream on top of the milk begins to thicken and form little creases. Do not let the milk boil. When you see a number of creases in the cream carefully lift the bowl from the saucepan and set it down in a cool place. Move the basin occasionally so that the bottom is kept cool. When cold put a cover over the basin to prevent dirt from touching the cream, and leave it until next morning.

Making the Butter. Next morning, with a large wooden spoon or flat strainer, lift the cream from the top of the milk and put it into an empty milk-bottle. Close the bottle with a milk-top. Shake the bottle until the cream separates into buttermilk and little lumps of butter. Pour the buttermilk into a jug or cup. You may use it to mix the sugar biscuits which you can read about on Chart 19.

Washing. Pour clean water on the butter in the bottle and shake well. Empty this water into the butter milk. Pour water on the butter twice more. Shake each time and pour the water away.

Salting. Shake the butter out of the bottle on to a plate. Sprinkle a little salt on to it and mix in lightly with the wooden spoon. Now the butter is made.

You can eat this butter on bread or plain biscuits. Remember the different things which must be done to make it—churning, washing and salting.

(ii) Make a Farm Book and write about the work the farmer and his helpers do.

(iii) Draw some of the farm animals. Write the name beside each, and say why it lives on a farm.

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Chart 21: On the Farm

If you walk quietly along a country road or through the fields and woods you may see some of the wild animals which live on or near a farm.

On Chart 21 you will find pictures of some of these creatures. Look at them carefully: they will help you to know the animals when you meet them.

Birds. *Rooks* are large black birds. They like to build their nests in large numbers, close together at the top of tall trees. There they often chatter so loudly that you can hear them as you walk beneath them.

Magpies are black and white in colour. They are smaller than rooks. You may see one or two close together sitting on a country gate or flying across a field near a road.

Pheasants are about as tall as a turkey, but their bodies are not so heavy. They are usually brown in colour, with beautiful green, gold and red feathers, especially in the tail. They like to run in fields close to small woods.

Cuckoos are strange birds. You may hear them calling "Cuckoo, Cuckoo" during the months of April and May, but it is not easy to see them. They never build nests as other birds do. The mother bird likes to lay an egg in different nests built by other birds. Then she flies away and seems to forget all about her egg. She never comes back to look after the baby cuckoo.

Animals with Four Feet. The English *squirrel* has a red fur coat and a lovely long curled tail. You can often see squirrels in the country, sometimes running on the grass or up the trunk of a tall tree. When the topmost branch is reached they spread out their long tails and jump from tree to tree. It is great fun to watch squirrels climbing and jumping.

The *hare* has a grey coat. It is something like a rabbit, but much larger and has long ears with which it hears very quickly. The hare does not make a home underground as a rabbit does. It likes to live in long grass or amongst short green bushes.

The *fox* is sometimes seen walking on a country road or through a field. He has a handsome red bushy tail which he swings as he walks.

The *mole's* coat is grey. It is smooth and soft like velvet. The mole makes a wonderful house under the ground.

The *hedgehog* has a coat of prickles. When tired, it rolls up into a round ball and goes to sleep.

The *fieldmouse* and the *vole* are both mice. They like to eat the seeds which fall from the wheat ears in the field. Some field mice are so small and light in weight that they can run up a wheat stalk and eat the seed in the ear at the top of the plant.

Water Creatures. The *otter* lives near a river. It likes to swim in the water and to rest on the damp grass.

Frogs live in water all the time when they are quite young. Have you ever kept frog-spawn at school and watched the tadpoles grow into frogs? If you have not, ask your teacher if you may do so during the spring months of the year.

Fish. Stand on a bridge and look down into the stream of water which flows under it. Soon you will see fish swimming about, some quite small and others rather large. Try to learn the names of the fish. The *trout* swims so quickly that it looks like a flash of silver passing through the water.

Dragonflies, Butterflies and Moths. *Dragonflies*, with their beautiful coloured transparent wings, often fly over a stream of water near a bridge. They shine brightly in the sunlight as they fly. You will see also many different coloured *butterflies* during the summer-time, flying over gardens and fields on bright sunny days.

Moths usually fly at night, but you may sometimes see one resting on a tree-trunk or under a leaf during the day-time. They often fly through the windows of houses at night when there is a bright light shining inside. Do you know how butterflies and moths fold their wings when they rest and sleep?

SOMETHING TO DO

(i) In your Farm Book write about some of the wild animals of the English countryside. Many papers and magazines have pictures of wild animals in them. Cut them out and paste them into your book. Write the name of each beneath its picture and try to find out where and how it lives. Write about this in your book.

(ii) Try to find a book about English wild birds and animals in a children's library. Then you can compare your animal pictures with those in the book.

(iii) Watch a butterfly on a flower. Notice how it folds its wings. Watch a moth resting in the day-time. Write in your book about the different ways in which each folds its wings. Draw and colour each butterfly and moth you see. Paste the drawings in your book.

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Chart 22: The Railway

NEARLY everyone has watched a train travelling along. How fast it goes! If we wish to take a journey by train we must go to a railway station.

On Chart 22 there is a picture of a railway station showing many things that we find on all railway stations. Look for the booking-office. There people buy a ticket which allows them to travel by train. When you buy a ticket you must take it to the ticket-collector. He will clip a little hole in it and give it back to you. Then you may walk on to the platform. On the chart you can see a train waiting by the first platform.

The Engine. This is right at the front of the train. There the engine-driver and his fireman are busy seeing that everything is ready for them to start the train. The coal-tender is behind the engine. The driver's fireman will feed the engine fire with coal from the coal-tender as the train travels along.

Passenger-coaches. Each coach has several compartments where the passengers sit. There are three windows, including the one in the door, on each side of a compartment, and so, if you count the windows on one side of each coach, you will know how many compartments there are.

Buffers. On the outside, at the ends of each coach, you can see the buffers. They are strong springs which lessen the shock if coaches bump into each other as they move or come to a stop. At stations where the line ends and does not run any farther, buffers are placed close to the platform at the end of the line. Do you know why they are there?

On the Platform. While waiting for their train many passengers go to the bookstall and buy a newspaper or book to read on the journey. Others like to stand on the weighing-machine. When they put a penny in the slot, the machine shows how heavy they are.

There is a bookstall on this chart and a weighing-machine not far from it.

The Guard's Van. Look at the guard's van. A porter is taking luggage on his luggage-truck to put into the van. Some luggage is put on the luggage-weighing machine. If it is very heavy the owner must pay for it before the

porter may put it in the van. The postman brings his letter-bags and puts them in the van.

The Guard. The guard stands ready on the platform with a flag in his hand. He will look at the big station-clock. As soon as it shows the time to start he waves his flag to the engine-driver and blows his whistle. Then the driver pulls a handle in the engine and away goes the train.

The guard must jump quickly into his van as the train begins to move, or he may be left behind on the platform. He finds many things in his van: luggage, bags of letters, bicycles and boxes. He will take care of them all and see that they are put out at the right stations.

There are many more things to see at a station after the train has gone on its journey.

The Signal-box. This is near to the railway-lines on which the train moves as it comes into or goes out of the station. The signal-man must watch to see that the lines are clear and raise the signal at the end of the station to show the driver that it is safe for him to start. He must also send a signal to the signal-man at the next signal-box along the line to tell him when a train is coming.

Shunting-yard. Here you can see a large shunting-shed where many engines are kept. Nearby there is a turn-table. When an engine must be turned round the driver runs it on to the turn-table. Then a man makes the table turn round, and, as soon as it is in the right direction, he stops it, and the engine is driven off the turn-table to the place where it is needed.

SOMETHING TO DO

(i) Make a toy railway at home or at school. Some parts can be bought in shops, but it is more fun to make everything yourself out of empty boxes and pieces of wood. Look carefully at the pictures on Chart 22. They show just how each part of the railway is made.

(ii) There is much to be seen at a railway station that is not shown on this chart. Ask your father or teacher to take you to visit a station. When you come home make a book about trains and write about the station in it. Look for pictures of engines. Cut them out neatly and paste them into your book. Write its name beside each.

(iii) Trains carry many things besides people. Try to find out some of these other things. Write about them in your book, and say where they come from and where the train takes them.

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Chart 23: Journey's End

SOME boys and girls live in large cities and towns where there are many streets, shops and buses. Others live near the sea or in the country, close to beautiful fields, hills and mountains.

It is pleasant to take a journey by train to visit places quite different from those that you see every day.

On Chart 23 there are pictures of places to which you might travel by train to visit friends or go for a holiday.

The Country. Look at the picture of the country with its trees and lambs. Charts 20 and 21 show many interesting things that are to be found there.

A village is a very small town in the country where you would find it pleasant to stay: from there you could go for walks along the country roads and across fields. In some country places there are woods and large forests where you may walk under tall trees and find beautiful flowers and birds and sometimes streams of water.

Mountains and Lakes. There are hills and high mountains with lovely lakes near to the village on the chart. You would enjoy climbing the mountains and sailing on the lakes. From a boat on the lake the mountains often look very beautiful. On the mountains you may find flowers which cannot be found anywhere else.

The Seaside. If you like to swim you can travel by train to the seaside. While some boys and girls enjoy paddling and swimming in the sea, others build castles with deep tunnels under the sand, and gather lovely coloured shells and pebbles.

A Large City. Many people who live in the country enjoy visiting a city. London is the chief city of England. It is very large and has many fine big buildings and wide bridges over its busy river, the Thames. In the picture on this chart you can see the River Thames with a very old building called the Tower of London close beside it. Everyone who goes to London wants to visit this wonderful old castle. There you can learn about some famous people who lived long ago. The roadway on Tower Bridge, which crosses

the Thames near the castle, opens to let large ships sail up the river. You would enjoy sailing up the river on a steamer when the weather is fine and warm.

SOMETHING TO DO

(i) In your Train Book write about where you would like to take a friend who came to spend a holiday at your home.

(ii) Write about a holiday that you would like to take.

(iii) Look at the pictures in the papers which come to your home. Cut out those which show places in your town or city. Paste them into a scrap-book. Beneath each write anything interesting that you know about the place.

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Chart 24: Trees

Chart 25: Flowering Trees

Chart 26: Flowering Shrubs

ON these charts there are pictures of trees which grow in cities, towns and country places. Trees are so beautiful and live and work in such wonderful ways that we should all learn to know them just as we know our friends. In order to help you to begin to do this, the name is printed by the picture of each tree on these charts.

Chart 24 shows some of our largest trees: the common oak, elm, ash, beech, silver birch, sycamore, Lombardy poplar, crack willow, lime, plane, Scots pine, silver fir, cedar, yew and larch—fifteen beautiful trees. There are a number of ways by which you may know a tree. Perhaps the easiest is to learn the shape of its leaves; but leaves are not on every tree all the year round and two trees may have leaves very much alike.

Some trees have large coloured flowers, and you might learn to know them by these, but, again, the flowers are not always out.

The best thing to do is to choose one part of a tree and look at it during a particular season. The following would be a good plan.

Spring-time. Notice the buds at the ends of twigs. Some are long and thin, some flat and thick, others round and fat. Some grow in pairs, one on each side of the twig, while many others grow quite differently. Again, tree-buds are not all the same colour. Those on one kind of tree may be green, on another red and on another shiny brown. You will begin to feel very happy as you look and find all these differently shaped and coloured tree-buds.

During spring-time, when the sun begins to shine more and more, the buds grow larger and fatter until something really wonderful happens. The outside leaves open and tiny green leaves or early flowers come peeping from the buds. All this growing and moving seems to happen without a sound. We know that something is moving in the tree-buds but we do not often see anything move.

During the months of April, May and June, look at the opening leaves and flowers, so that you know all those that grow near your home.

Summer. This is the time to learn the shape of the leaves on each kind of tree. During this season they become fully grown and it is easy to see their differences. Touch the leaves carefully and notice that some are thinner than others. Look at the edge of each leaf as well as its shape.

If you stand a little way away from each tree, so that you can see the whole of it, you will be surprised, if you have not noticed it before, to find that each has its own special shape. The poplar grows up tall and straight while the willow droops its branches downwards.

Autumn. When this season comes the leaves of most of our trees begin to change colour, and when strong winds blow in late October and early November they fall to the ground. Pick some up and paint them. Notice the varied colours from different kinds of trees.

During the late summer and autumn you will find the special fruit which grows on every tree.

Winter. Now the tree is at rest, gathering strength for next year's growth. First of all look at the whole tree quite bare of leaves.

Notice the strong trunk with its covering of bark. Some bark is smooth and some rough, but every bark, whether smooth or rough, is different according to the kind of tree on which it grows.

Next look at the *branches* and *twigs*. No two kinds of tree grow these in quite the same way.

On Chart 24 there are some trees which do not lose their leaves during the winter season. They are the Scots pine, silver fir, cedar, yew and larch. Such trees are called *evergreens*. In England we use a small fir tree for our Christmas tree.

On Chart 25 there are pictures of trees which grow very beautiful flowers. Each is named, and the flower is shown in its natural colour.

Chart 26 shows ten small trees, which we call shrubs, because they do not grow as high or as strongly as many other trees. You will often see them in gardens or parks. All those on Chart 26 have beautiful flowers shown in natural colours.

SOMETHING TO DO

- (i) If you live in a large city ask your teacher to write to the Parks Committee of the City Council and ask if some twigs, flowers and fruits of trees in the parks may

be sent to your school during each season of the year. Put them into water, draw and paint them and watch how they grow. One of the best trees to watch is the horse-chestnut.

(ii) Make a book about trees. Choose a tree that you can see at least once a week. Watch it through the whole year. Draw it when covered with leaves in summer and when quite bare in winter. Watch a twig with spring buds opening on it and draw them twice a week, showing how the leaves and flowers grow from it. In summer paint the leaves and flowers and in autumn the fruit and coloured leaves that fall. Paste all drawings and paintings into your Tree Book.

(iii) In your book write about any creature that you see living or resting on a tree, or on the ground beneath it.

(iv) Draw some evergreen trees.

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Chart 27: Spring Flowers

THERE is a picture of a sundial on this chart to remind us that winter has passed and sunny days have come again, bringing us many beautiful garden and wild flowers.

In cities we see them growing in the parks. In towns and in the country they begin to make gardens bright and gay. First come the gold and purple crocus, then primroses and daffodils, followed by sweet-smelling hyacinths, narcissi, gaily coloured tulips and the snow-white lily-of-the-valley.

The small daisy, with its golden centre, grows wild in the short green grass of parks and gardens, and on road-side banks. Buttercups, woodsorrel and clover prefer the fields and meadows, while the bright gold flower of the dandelion grows almost everywhere. In France it is known by the name "Dent-de-lion," which means tooth of lion. It has been given this name because its green leaves seem to suggest large teeth. I expect you have often blown its clustering feathery seeds as you counted the hours.

Bluebells, purple bugles and the white purple-tipped pasque flowers are found under woodland trees. The pasque flowers are sometimes called wood anemones or Easter flowers. Many people gather them to decorate their houses and churches at Easter.

The dog-violet grows in sandy places. Little golden oxslips may be hard to find: they grow chiefly in Essex and Cambridgeshire. The vetch is a wild sweet pea. Blue periwinkle grows wild and also in shady places in the garden.

You will find these flowers drawn in their natural colours on Chart 27: so when you find one, if you do not know it, look at the chart, where you will find its name written close to the flower.

SOMETHING TO DO

(i) Make a Spring Flower Book. When you see a wild flower growing, pick one with its leaf. Take it home or to school and put it in water. Draw or paint it in your book. Write its name and the day, date and place when you found it. Be sure to look

at the chart if you do not know the flower. If it is not there, find a book in the children's library, where there are more flowers than those on the chart.

(ii) When you have painted a wild flower, place it carefully, with a leaf, inside a folded paper. Put the paper between two pieces of stiff card and place it under a heavy weight. If you cannot find a good weight, put the flower in the stiff card into a large book, and place more books on top of it. Be sure that the flower is dry, so that it will not mark the book.

After a day or two, take the pressed flower and paste it in your Flower Book opposite the picture that you painted of it.

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Chart 28: Summer Flowers

ON this chart is a picture of a garden in summer-time, with its flowers, pleasant lawn and cool fresh lily-pond.

Many more flowers bloom in the summer than in spring or autumn. Look at them carefully, read their names and notice their many lovely colours.

Garden Flowers. The lupin flowers may be pink, purple blue, yellow or white. The antirrhinum, phlox and Michaelmas daisy also have many different colours. The antirrhinum is often called by the name "snap-dragon." Look at its flower and press the long tube beneath its top petals and see if you can guess why it is given this name. If you cannot do so, ask your teacher to tell you.

On the pond there grows a water-lily. This flower, with its pure white petals and golden centre, looks very beautiful as it rests on the cool water, surrounded by dark green leaves. You would like to see it slowly close its petals for the night when the sun ceases to shine. It closes them in the day-time also, when the sun does not shine.

Wild Flowers. Just as there are more garden flowers in summer than in the other seasons, so there are more wild flowers. Some of the most beautiful have been drawn on this chart.

The rose willow-herb grows in damp places and woods during July and August. You must look for the red poppy and purple scabious in the ripening cornfields. Scarlet pimpernel and meadow crane's-bill can be found in both gardens and fields.

The common St.-John's-wort likes the woods, hedges and damp places, while the yellow marsh-gentian, or marsh wood-wort, as it is sometimes called, prefers ground that has been under water during the early part of the year.

The tall hemlock grows on sandy road-side banks during June and July. You will probably read about this flower in some of your school-books and poems.

SOMETHING TO DO

(i) Make a book about summer flowers. Look for the wild ones as you walk in a park or along the country roads or in woods. Take a flower home, with its leaf, and paint it in your book. Write its name, where you found it, and the day and date.

(ii) Press the wild flower, with its leaf, after you have painted it, and paste it on to the page opposite to your drawing. You can read how to press wild flowers on page 50.

(iii) Ask your teacher if you may have a few garden flowers in a vase in your classroom each week. Paint them in your Flower Book but do not press them. Write the name of each flower by its side.

(iv) Look for fresh garden and wild flowers every week, and try to keep some of each in separate vases in your classroom. Write the name on each vase, and where you saw the flower growing.

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Chart 29: Autumn and Winter Flowers

DURING the autumn and winter months you can still find beautiful garden and wild flowers, but they are becoming very few in number, and do not show the many bright colours of summer-time.

In the garden in autumn there are graceful chrysanthemums, brightly coloured waxy-looking dahlias and the delicate autumn crocus in its gold and purple colours. As Christmas draws near, the lovely white Christmas rose will begin to flower: it grows close to the earth and is protected by its dark green leaves.

Not long after Christmas, even in the midst of snow, the snowdrop will send up its drooping white head. Then we know that spring-time and sunshine will soon return.

There are not many *wild flowers* at this time of the year, but during the autumn, in sheltered places, you may find wild chicory, common St.-John's-wort and cow-parsnip. Felwort, which is sometimes called winter gentian, opens its bright blue flower now, but you must look for it carefully because it closes up its gay blue petals whenever the sun is not shining. All through the winter the little chickweed may show its white flowers as it grows close to the earth in the garden and on way-side banks.

If you live in the country you may find a number of unexpected wild flowers tucked in at the foot of a sheltering hedge, or between moss-covered stones in walls and on the ground.

Look carefully at the flower pictures of the spring, summer, autumn and winter on Charts 27, 28 and 29. There they are shown in their natural colours. Learn to know them so well that whenever you find one you can name it at once.

SOMETHING TO DO

(i) Make a book of winter flowers. Paint each one carefully on a separate page, with its leaf beside it. Press the wild flowers and fix them to the paper opposite your painting. Do not press garden flowers.

(ii) At the end of each of your Flower Books write the names of all the flowers

you have painted or drawn in crayon. Number the page on which you have put it in the book.

(iii) Compare your lists with the flowers shown on Charts 27, 28 and 29, and mark all those you have found which are not shown on them.

(iv) Look carefully at each picture you have painted and notice which wild flowers are like garden flowers. Write a list of them, putting the name of each garden flower by the side of the wild flower which is like it. You will be surprised to find how many are alike.

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Chart 30: Birds

THERE are pictures of twelve beautiful birds on this chart. Each is shown in its correct colours, with its name and the time of year when it is likely to be seen written beside it. These facts will help you when you are learning to know birds.

Some of the birds shown on the chart live in cities and towns as well as in the country; others like better to live only in the country, where there are many trees, woods, streams and green fields, or near the sea.

Each kind of bird sings its own special song. You may hear it early in the morning or in the evening just before darkness comes. If you keep very quiet and stand still, so as not to frighten the singer, you may hear the song sung or whistled over and over again, and then hear another bird sing to answer the first one. Try to remember each song and practise whistling it when you are at home. When you can do so, go one evening to the place where you heard the bird and whistle the song yourself. Then wait a few minutes. During this time, if the bird is nearby it may reply to you by singing its song. When it stops, whistle again and wait for an answer. Two birds which sing most beautiful songs are the skylark and the nightingale.

The *skylark* sings a long and joyous song during the day-time. If you wish to see it as it sings you must stand still and look up into the sky. After a few minutes you may see a black speck far up above you, moving very quickly. This will be the skylark flying high in the sky, singing its lovely song over and over again.

The *nightingale's* song is quite as wonderful as the skylark's, but it sings during the early night. As it sings it likes to sit on a bush or tree near, or right in, a wood, and so it is not easy to see. At first, you must learn to know it by its lovely song.

The *blackbird* lives near cities and in towns as well as in the country. In spring you may see it sitting on a tree, whistling and singing its loud cheerful song.

There are two kinds of *thrush*: the brown thrush and the greyer missel-

thrush. The brown thrush sings during the spring and early summer; the missel-thrush during winter and early spring. Everyone likes to hear the missel-thrush as it sits at the top of a tree. Its song is loud and clear, and seems to say: "Never mind the cold, spring is coming, spring is coming." Many birds, like the robin red-breast, chaffinch, starling, bullfinch, goldfinch, wren and bluetit, seem only to cheep and twitter. If you go into a garden or out of doors in the country where there are hedges and trees, and keep quite still, you may hear their special songs, which are far more than a cheep or a twitter.

The Shape of Birds. If you wish to know birds well, notice the shape of their bodies. The *blackbird* is long, with a pointed tail. The little brown *sparrow* fluffs out its feathers to look like a ball when the weather is cold. As they fly, look at the shape of both body and wings. The *swallow* has beautifully shaped, pointed wings and a forked tail, which help it to travel long distances over the seas.

The Flight of Birds. Notice carefully how the different birds fly. You will be filled with delight as you watch them. The *seagull* dives, turns and rises in a most wonderful and beautiful way. Many small birds dart here and there so quickly that you can hardly see how they move.

Habits of Birds. Some birds like to live in large groups. *Rooks* build their nests close together at the top of tall elm trees. You may hear them cawing loudly as you walk beneath the trees. *Swallows* take two long journeys each year, flying together in a great company. You will like to know about their long travels. *Pigeons* live in groups in large cities. *Starlings* are friendly birds. You may see them flying together in large numbers towards evening, and settling down for the night, on the branches of a group of trees, close together. In large cities they often gather together for the night on the roof and ledges of large buildings. They also like to feed in company with other birds. At the London Zoo, *sparrows* and *starlings* feed together quite close to some of the large animals. The *robin* likes to feed alone. He drives other birds away but sometimes in the early cold spring he brings his mate to feed with him. The *cuckoo* is a strange bird. It lays its eggs in other birds' nests and never comes back to take care of the baby birds.

SOMETHING TO DO

(i) Try to name every bird you see. Draw or find a picture of each and paste them into a special Bird Book. Write the name of the bird, the day and date when

you saw it, and what it was doing. Look at the pictures on Chart 30. If the bird is not there, try to find it in a book about birds.

(ii) Watch the baby birds in spring-time. Notice where their nest is built, but do not go near for fear you frighten them. Try to find out how the parent birds take care of their babies and teach them to fly.

(iii) In summer-time look for old bird-nests. Draw them in your book and say where you found them, how they are made, and what bird you think laid its eggs in each.

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Chart 31: Butterflies and Moths

HERE, as on the Bird Chart, you will find every one of these lovely creatures shown in its correct colours, and the name and month of the year when you may expect to see it is printed beside each one.

Sometimes we find small moths in our houses which do a great deal of harm to our clothes. Those which you see on Chart 31 are not destructive. They usually live out of doors, though sometimes one or two butterflies and moths hang themselves up in our houses and sleep there during the cold winter weather.

Before beginning to look for butterflies and moths you should learn some of the differences between them, as this will help you to decide whether you are looking at a butterfly or a moth.

Here are some differences—

(i) A butterfly at rest folds its wings upwards above its body. A moth usually folds its wings downwards, sometimes covering its body altogether.

(ii) The habit of a butterfly is to fly during the day-time and that of a moth to fly during the night.

(iii) The feelers, or antennæ, of a butterfly are thickened at the tips, and those of a moth are not.

At night a moth may fly through an open window into your house, being attracted by a bright light inside. When this happens, watch the moth for a few moments and try to identify it. Then shelter the light with a dark paper or book and gently wave your hand towards the moth so that it can get away from the light and fly out into the darkness once more. If it stays near the light the heat will kill it.

SOMETHING TO DO

(i) Baby butterflies and moths are hatched from eggs. Try to get some butterflies' eggs and watch the babies come out of them: you may find a cabbage leaf with butterflies' eggs on the back of it. In towns and cities you may be able to buy some from a shop where animals are sold.

Care of Eggs. Put the leaf on which the eggs rest into a small jar of water, but do

not let the eggs touch the water. Place a small wooden or cardboard box over the jar and cover the top of the box with a piece of fine net so that air may get to the leaf. Look at the eggs once or twice a day until you see the babies come from the eggs. If you have never seen a baby butterfly these young ones will surprise you very much.

Care of Babies. Take the leaf on which the baby butterflies rest and put it with one or two other leaves in a jar of water. Do not let the babies touch the water. Cover the box with a fine net. Look in at least twice a day and see that there are always fresh leaves for the babies to eat. Several changes will take place before these babies become full-grown butterflies, so watch carefully and draw a picture of what you see every time you find a change has taken place.

You will like to put these drawings in a small book. Call it *My Butterfly Book*. Write the date by the side of each drawing. Then you will know how long it took the babies to become full-grown butterflies.

(ii) Try to visit a museum where you can see the butterflies and moths that live in many different countries of the world.

(iii) When you walk out of doors, look for creatures that fly besides birds, butterflies and moths. Write their names in your *Butterfly Book*.

LIFE IN MODERN TIMES

Chart 32: The Seaside—On the Sands

EVERYONE enjoys a holiday by the sea. On this chart there are pictures of some of the jolly things that you can do there. Look at the sea as it rolls up on to the sand and the children paddling in the water. On a hot day it is good to feel your feet on the firm sand with cool sea-water flowing over them. Some boys and girls can swim in the sea, and others like better to paddle or dig in the sand and build big castles.

In the picture on Chart 32 you can see a steamship in the distance, a yacht with its sails spread and a rowing-boat. Many people like to go out in a boat to catch fish, while others go for a trip on a steamer.

There is a Punch and Judy show on the beach which you would enjoy watching when you tire of paddling, building castles and sailing on the sea.

Look at the pictures around the sides of the chart. At the top there are some fish—from left to right: whiting, plaice and bass—which are often caught in the sea; and at the bottom are sea animals—from left to right: crab, sea-horse, star fish, sea anemone and crayfish—that you may find as you walk among the rocks on the shore. It is fun to watch the crab hurrying sideways along the beach. The beautiful coloured sea anemones grow on the rocks. They are really animals but look like lovely flowers when the sea washes over them.

Look at the pictures of shells. Perhaps you have collected some and can remember the names of some of the creatures that live in them.

SOMETHING TO DO

(i) Make a book and call it "By the Sea." Write in it the names of all the animals, people and other things that you can see on Chart 32. Draw some of them.

(ii) If you have spent a holiday by the sea, write in your book about the things that you saw and did there.

(iii) If you have not been to the seaside, write about a place that you have visited and tell what you saw and did there.

(iv) Try to visit an aquarium and look for fish and other sea animals like the ones shown on this chart. Try to find some new ones.

LIFE IN MODERN TIMES

Chart 33: The Seaside—The Harbour

THIS chart shows you a picture of a harbour by the sea. It is the most important place in many seaside towns, for here the ships come to rest when they must be unloaded and loaded again. People who travel or take trips in ships must go to the harbour to get on to or leave a ship.

When there is a storm at sea sailors are glad to bring their ships into a harbour and anchor them at the quay or jetty where they can remain in safety until the sea is calm again. Look at the light at the end of the jetty. The look-out man on a boat is glad to see this bright shining light when he is bringing his boat into the harbour on a dark stormy night.

In the picture you can see some fishing-boats and yachts moored near to the jetty and another coming into the harbour. The yachts have beautiful white sails to help them move quickly over the sea when the wind is blowing.

The fishermen leaning against the wall may be waiting for the incoming boats. Perhaps they will help to unload fish from them. Notice the anchor with four prongs, which is near the men. This would hold a boat safely and steadily while it was being unloaded. The fishing-nets and lobster-pots are there, ready to take out in the next fishing-boat that leaves the harbour. The lobster-pots look like baskets.

Away out on the sea there is a big steamer. It looks too large to come into a small harbour like the one in the picture. It must steam on to a large port where the water in the harbour is deep and there is a large quay at which it can be safely anchored.

SOMETHING TO DO

(i) Write in your Seaside Book the names of all the people and things that you can see on Chart 33 and say why they are there.

(ii) Draw pictures of different boats you have seen on the sea, on a river or pond, or in a museum. Write the name of each kind of boat and, if you know, to what places it sails.

(iii) Try to find out what other things besides fish are brought by ships into our harbours. Write down their names and where they are sent from.

LIFE IN MODERN TIMES

Chart 34: Puppet Figures

Chart 35: Puppet Stages

ON Chart 32 you will see a picture of a Punch and Judy show. These jolly shows are often found at the seaside and everyone enjoys looking at them. Look at Punch, Judy and their dog. These figures are called puppets. They are made to move by the hands of one or perhaps two people standing behind the curtain of the show-box.

Different kinds of puppets can be made with quite simple material and used in school or at home to entertain your friends and yourselves.

At the top of Chart 35 we have a scene taken from "Goldilocks and the Three Bears." This shows Baby Bear coming on to the stage with his dish of porridge. Two types of puppet stages are shown on this chart. The simplest one is made with cardboard which has been bent at each side so that it will stand easily. The second stage has curtains which can be drawn to close it. If you look carefully at the pictures of these two stages you will not find them difficult to make.

SOMETHING TO DO

(i) On Chart 34 you will see just how to make a simple puppet that can be moved by your hand. It is called a glove puppet. When you make the puppet move, you must speak so that it appears to the audience as if the puppet were both speaking and acting.

Look carefully at the drawings on the chart as you make your puppet.

The Head

(a) Roll a half-sheet of folded newspaper on your left-hand middle finger. Keep the roll on your finger and twist the top half of it downward and around, so as to make a thickness upon which to mould the head. Paste the edge of the roll which is on your finger so that it will not come undone.

(b) Cover the paper roll and twisted part with a thin layer of plasticine. Model the face, as shown in the picture, with more plasticine. Make the eyes, mouth and nose rather large, so that they can be seen from a distance.

(c) Tear a strip of white paper from the edge of a soft newspaper. Tear the strip

into small pieces not more than $\frac{1}{4}$ in. in size. With a brush, paint paste over the head and neck of your puppet and stick on the small pieces of paper. Let them overlap a little so that no plasticine can be seen.

(d) When the paper is dry paint the face and glue some dyed cotton wool on to the head to look like hair.

The Hands

While the head is drying take a quarter of a sheet of newspaper and fold it in half. Roll it over your middle finger and paste the edge to prevent it from coming undone. Fold down half the length of the roll and flatten it out. Keep the rolled half on your finger. Cover the flattened end with a thin surface of plasticine to form a hand. Paste small pieces of white paper over the hand and rolled wrist. When it is dry, paint the flat part to look like a hand and the round part to look like a wrist. Make another arm and hand in this way.

Dressing the Puppet

Use a piece of material wide enough for you to spread out your fingers inside it, but not any larger. Cut a round neck at the top and shape the sides a little to form sleeves. Turn down and gather the top opening around the neck of the puppet. Gather and stitch a sleeve opening to each wrist and hand. Be sure that you do not stitch across the rolls into which you must put your fingers to make the head and hands move.

Making the Puppet Play

Push your middle finger into the roll that holds the neck, and your thumb and little finger into the wrists. Practise making the puppet bow and nod. Soon you will be able to make a little play with some of your friends who have also made a puppet.

(ii) When you have made your puppet, join with one or two friends who have also made puppets. The first thing to do is to practise moving the puppets with your fingers. Then make up a play in which each puppet has a part. One might be father, one mother, one a boy, another a girl. Plan a conversation in which each of these people speak.

(iii) Make one of the stages and stand behind it so that you are not seen when the puppet moves. Plan and write a short play for two puppets.

LIFE IN MODERN TIMES

Chart 36: The Circus

Chart 37: The Fair

Most children enjoy going to a circus or a fair, whether they live in a town, city, in the country or at the seaside.

On Chart 36 there is a picture of a circus. I expect you have seen a big circus-tent and the clever men and women performing wonderful gymnastic feats: climbing, jumping and swinging high in the air; and also the clowns doing their tricks, and others riding on horseback. You can see pictures of some of these people on Chart 36, and also pictures of animals, such as the elephant, dog, seal, horse and pony, performing their tricks. The men and women who teach animals to do these things must be very patient and kind. When an animal learns to like and trust a person it is often possible to teach it a number of tricks. If you have a dog, make a friend of him, and then you may be able to teach him some clever tricks which he will enjoy doing when you ask him, such as sitting up to beg or jumping through a hoop.

When a fair, such as the one shown on Chart 37, comes to a town, there is always much rejoicing. Children enjoy going on the swings, roundabouts and circling aeroplanes, or sliding down the helter-skelter and waving the many-coloured balloons which are sold at the stalls. Father likes to play at some of the games of skill, such as throwing balls to knock down coco-nuts, and to watch the boxing-matches.

There are many other interesting things to see and do at the circus and fair, especially to look at the caravans which are the homes of the people who work in the fair and circus. They travel from one place to another in the summer, but sometimes when the winter is very cold they leave their caravans and live in a house in towns until the days become warm again and they can go back to their caravans.

At home you might practise throwing balls at a mark, and then, when the fair comes to your town, you may be able to hit a coco-nut at one of the stalls.

SOMETHING TO DO

(i) Write about a circus that you have seen, name the animals and describe the part that you liked best.

(ii) Fairs often come to a town or village at a special time of the year. Write about a fair or one other event that takes place in your town at a special time each year.

(iii) Write and describe a trick which you have seen an animal perform, or about a gymnastic feat that you can perform yourself.

THROUGH THE AGES

Chart 38: Transport through the Ages

LONG ago people who went on a journey just walked from place to place. There were no roads and often difficult places had to be passed over, such as forests, rocky valleys and high mountains.

As time went on narrow paths and tracks were made, and upon these it is possible that some of our splendid modern wide roads may have been laid down. People became very tired when they had to walk for long distances, but gradually they found new ways of travelling.

On Chart 38 there are pictures of some of these ways, that man learned to use when a journey had to be taken. At first you see him just walking along. Later he learnt to make a *litter*. This was a most comfortable way in which to take a long journey or carry a sick person from one place to another. The man sitting or lying on the litter went the whole journey, while the bearers who carried it went only part of the way. When they became tired other bearers carried the litter on until they met more bearers, and thus the journey continued to its end. The *sedan-chair*, used mostly by women, was also carried by men.

In time horses were tamed and better tracks and roads were made. Then people rode on horseback or in covered carts. When the wheel had been invented, horse-drawn vehicles could be used. At first the wheel was made of a flat solid piece of tree-trunk with a hole in the centre. This was so heavy and clumsy that it made the cart shake uncomfortably as the horse pulled it along. In time men learned how to make wheels much lighter in weight by putting spokes all round the central axle and holding them firmly in their place by an outer ring of strong pieces of wood. Later they found out how to make wheels with metal and to put soft rubber tyres on them so that they could turn quickly and smoothly over the roads. You can see some of these good modern wheels on the motor-cycle and motor-car shown on this chart.

SOMETHING TO DO

- (i) Most of our modern vehicles have changed a great deal since they were first

made. Try to visit a museum and find one kind of vehicle and see how it has gradually changed. Many museums have different kinds of bicycles which would interest you very much. Draw each bicycle and paste your drawings into a book when you return home. Beside them write the date when they were first made. You will find this marked in or near each bicycle in the museum.

(ii) Begin to write a book about transport in this country. In a library you will find books which will tell you more about transport here and in all parts of the world.

THROUGH THE AGES

Chart 39: Transport of Goods

IN long-ago days people not only travelled themselves, but also found it necessary to carry or send goods from one place to another, just as we do to-day.

On this chart there are pictures which show some of the ways by which goods were transported then and other means of transport that men have since gradually learnt to build up.

At first, goods were carried on the head or back of a man or woman or dragged along the ground. These were slow and tiring methods. After a time pieces of tree-branches were tied together, the load placed on them and dragged over the ground by more than one man. Sledges moving on rollers soon began to be used for the transport of heavy weights. After wheels were invented oxen drew loads in carts which moved on solid wooden wheels. They still do so in many lands to-day, but the wheels of modern carts are not so solid and heavy as they were in early times.

On Chart 39 you can see two ancient carts: a Roman ox-cart and a cart of Saxon times, which was used in England many hundreds of years ago.

Pack-horses were used in England during the Middle Ages. For a long while men called pedlars walked from town to town carrying the goods they wished to sell in a pack on their backs. A waggon drawn by two or more horses was used in the days of Queen Elizabeth I, and not long ago the carrier's van still travelled from village to village on our country roads.

Look now at the picture of a coach. Letters were carried and people journeyed long distances in coaches like this one not very long ago, before, and some time after, the railway was invented. To-day much transport of goods is done by large motor-lorries, and special containers are used on some trains, for instance, to bring milk from the country to the city. Milk is also taken through the street in special vans and hand-carts. You can often see vehicles in the streets, made in a particular way to carry petrol.

SOMETHING TO DO

(i) You will see many kinds of vehicle taking goods from one place to another as you walk in the street. Look at them carefully and notice what they are carrying. Write in your Transport Book the name of each vehicle and what it was carrying.

(ii) Notice different ways in which each transport vehicle is built. Draw each new type that you see and try to find out why it has been constructed in a particular form and the materials used for the purpose.

THROUGH THE AGES

Chart 40: Transport by Water

Chart 41: River-boats

Chart 42: Sea-going Vessels

THERE is hardly anyone who does not enjoy travelling in a boat on the sea, on the river or on a lake. These charts show many ways by which people have and do still travel on the water.

Charts 38 and 39 show ways by which people used to travel on land and how by much thought and careful work they gradually learnt to make better means of transport.

Now look at the pictures on Chart 40. They are of boats used in days gone by.

The First Boat. At first men floated on the trunk of a tree. This would not be comfortable or safe because the log might roll over if the sea became rough.

After a while someone thought of burning a hole in the tree-trunk. There were no tools to make such a long hole in those days. When the log was dragged on to the water a man could sit in the hole and guide it along with less danger of getting wet or being turned over into the water.

The Raft. Another type of early boat is shown on this chart: this will remind you of the carrying-litter and sledge on Chart 38. This boat is called a raft. It was made by tying together long bamboo sticks. Then inflated animal skins were fastened beneath the raft to keep it afloat. Several people could sail on such a raft at the same time.

The Arabian Coracle. This boat was made by weaving rushes, very much as some baskets are woven to-day. It was lined with animal skins in order to prevent water from soaking into it. The coracle is still used in parts of Britain to-day, especially Wales, where the water is not too deep or rough.

Ancient Egyptian Canoe. This was made by the people of ancient Egypt, by tying together the long rushes which grew by the river-side in their country.

Men now know how to build good sea-worthy ships and boats, which

are used for many purposes. Look at the pictures of some of them on this chart.

Perhaps you live near a busy river like the Thames at London, the Mersey at Liverpool or the Tyne at Newcastle. The river pictured on Chart 41 is part of the Thames close to the Tower Bridge. This wonderful bridge opens to let ships sail up the river. Near by you can see some *barges* with their loads and a *steam-tug*. Not far away is the *police-launch*. This is a motor-boat. It moves quickly up and down the river to see that every boat, barge and ship sails properly until each reaches its right berthing-place or steams away out to sea.

There is also a *dredger*, which keeps the river clear of obstacles, and two *pleasure-boats* which take people for river trips on fine days.

Many large sea-going ships anchor in the great docks along the river-side, as you can see on Chart 42. Docks are very interesting places where passengers embark and disembark, and goods are loaded and unloaded. The dock-workers are busy men, and work hard to load and unload the many ships that come and go. When the river tide is suitable, laden ships sail away to lands far over the sea, while others come in from distant places bringing many people and cargoes of goods which we need every day.

SOMETHING TO DO

(i) In your Transport Book, write the names of every boat and ship shown on Charts 40, 41 and 42.

(ii) Look carefully at the yacht on Chart 40 and try to make one like it. When it will float on water, blow the sails at different sides, and notice how they make the yacht move.

(iii) Try to visit a museum where there are many kinds of boats to be seen. There is a splendid collection in the Science Museum at South Kensington.

(iv) If you live near a river or dock, watch the ships and boats as they come and go. Each time you see a new one write its name in your Transport Book. Find out all you can about the newcomer and write its story in your book.

THROUGH THE AGES

Chart 43: Transport by Air

Chart 44: Modern Aeroplanes

THE aeroplane is one of man's latest transport inventions. The air seemed to be so light that most people used to think that it was impossible for human beings to fly through it without falling. For years men watched the birds and studied their ways of flying and little by little they learnt how the birds were made and moved in order to fly.

Nearly two hundred years ago a *balloon* was made which floated high up in the air as it moved along. There is a picture of this first balloon on Chart 43.

About fifty years later one of the first *airships* was constructed. In those early days of flying there were many accidents, but the eager workers did not lose heart, and because of this we can now take long journeys by aeroplane, flying quite high in the sky.

On Chart 43 you can see pictures of some of the first planes and also one of the largest modern passenger planes.

The earliest aeroplane shown on Chart 44 is a *biplane* with a single engine; the other aeroplanes, excluding the helicopter, are monoplanes. Biplanes are rarely seen in these days, but are used for training purposes. Note particularly the jet, which is the latest development. The *helicopter* has what is the equivalent of propeller blades above, and its chief merit is that it can rise and land and hover in a very small area. These are drawings of some of the most wonderful planes of modern times. The name of each aeroplane is printed by its side.

Many museums have models of famous ancient and modern planes, from the very first to the latest types of those that can come to rest on land and on the sea.

Boys and girls who live in or near London should visit the Science Museum in South Kensington, where there is a wonderful exhibition showing the development of aeroplanes from the earliest days to the present time.

SOMETHING TO DO

(i) Obtain some paper. Fold it into the shape of an aeroplane. Keep it flying in the air by blowing at it.

(ii) Try to get a book which tells you how to make small aeroplanes and make one. Read about the different kinds, and the various means by which they keep in the air when flying.

(iii) Draw or collect pictures of aeroplanes and airships. Paste them into your Transport Book. Write the names beside each and anything interesting that you know about it. Learn the name of each part of a plane and write them in your book.

(iv) Write about an aerodrome, or an aeroplane journey about which you have read or an aeroplane flight that you have watched.

(v) If you have visited an aerodrome, write about what you saw there.

THROUGH THE AGES

Chart 45: The History of Lighting

HAVE you ever thought what it would be like if we were unable to see anything once the darkness of night came on? Long ago no one knew how to make a light, and so when the dark night came people had to go into their houses or caves and remain there until next morning.

At last someone found out that fire could be made by rubbing two sticks together or by striking a flint stone. These were two of the greatest discoveries in history and they happened so long ago that no one knows who the discoverers were.

The pictures on Chart 45 show some of the ways in which light has been developed since the early days when people began to rub sticks together. Look at the picture of the cave man with a torch in his hand. How glad he must have been to be able to see his wife and children when he came home at night.

The second picture is of a *Roman lamp*. It was made long after the cave man's torch. It is a little earthenware bowl filled with oil. There are two holes in it, one at the top through which oil was poured, and a smaller hole at the side in which a wick was placed. As the wick burnt it soaked up the oil and when this was all gone more could be put into the lamp through the hole at the top.

These lamps were usually kept in the house. Lighted rushes dipped in oil were carried out of doors at night-time.

After a long while *candles* were made from animal fat and wax. You can see three standing in a large candlestick called a candelabrum.

Soon *oil-lamps* were invented and before very long houses were lit by *gas*.

To-day we find candles, oil-lamps and gas-light in many houses, but the clearest light of all is *electric light*. The little boy on Chart 45 is reading by electric light and the great office is lit by electricity that shines from its roof. With this modern light we can see with much greater ease and comfort than before.

SOMETHING TO DO

(i) Look at the street lights as you walk at night and then look in the shop windows and see how they are lighted. In many cities there are beautiful coloured lights. Do you know what they are used for? Write about the lighting in your house and in the streets near your home.

(ii) Many people use lanterns when they work. Find out all you can about lanterns. Draw one and write about people who use one and why they use it.

(iii) Look for books in a children's public library which describe how gas and electric light are produced. Compare the ways by which gas and electricity are brought into our houses.

THROUGH THE AGES

Chart 46: Timepieces Old and New

How often we hear people speaking about time during a day! There is a time to get up, a time for breakfast, time to go to school, time to come home, time for dinner and many more times to remember.

Have you ever thought about time and what a help it is to us, especially when we wish to go out with our friends and to come home again?

Of course, to-day we look at a clock and watch when we wish to know the time, but this has not always been so.

Look at Chart 46. There you will see some of the ways by which people told the time in days before there were any clocks and watches.

First of all look at the *shadow-stick*. This is a very, very old method for telling the time. The stick used to be put in an open space where the sun could shine full upon it. People then knew what time of day it was by the length of the stick's shadow which was seen on the ground as the sun shone on the stick.

Sundial. You will find this at the foot of the chart. Sundials can often be seen in public gardens to-day. Try to find one. Then look at the shadow which the sun makes on the dial at different times of the day.

Water-clocks. These tell the time in quite a different way from the shadows of sundial and stick.

The first water-clock was a dish holding water. Through a small open pipe in the dish the water gradually dripped away. The dish was marked so as to show the time as the water became lower and lower in the dish.

The second water-clock consisted of a bowl of water in which there was a small object which gradually sank as the hours passed by.

Candles. These were used to tell the time in the days of great King Alfred. Each candle was marked to show the hours; and as it burnt away mark after mark disappeared. The time could be told by looking at the marks that were left as the wax melted away.

Hour-glass. This contained sand. As it ran from the top to the lower part the time was told by the marking on the glass. Many people use a

glass like this to-day to be sure of boiling an egg for the right number of minutes.

After many years clocks were invented. There is a picture of a pendulum wall-clock on this chart. As the pendulum swings to and fro the clock ticks out the minutes.

Big Ben, which you will probably have heard strike when you have been listening to the wireless, is shown on this chart. I expect you know that it is in the tower over the House of Commons in London.

The last three timepieces here are an *alarm-clock* which helps us to wake in the morning, a *wrist watch* and a clock which works by *electricity*.

SOMETHING TO DO

(i) Set up a shadow-clock in your garden or schoolyard. Firmly fix a stick about four feet long into a flower pot. This will enable you to move it from one place to another. Place the pot where it can get the full light of the sun. Watch the shadow thrown from the clock for a day or two. Then put a mark at the end of each shadow at each hour of the day. Write the time on the ground beside the shadow. If you draw a circle to pass through each shadow line you will be able to mark the half-hours as well as the hours of the day.

Write about your shadow-stick and say why this is not the best way to tell the time.

(ii) Visit a museum where you can see many kinds of clocks. You can buy a little book about them at the South Kensington Science Museum. You will enjoy reading it after you have seen the clocks there.

ANIMALS OF THE WORLD

Chart 47: Wild Animals—Hot Climate

Chart 48: Wild Animals—Cold Climate

Chart 49: Wild Animals—Temperate Climate

ON Chart 21 there are pictures of some of England's wild animals. You will have had some happy times if you have tried to get to know and make friends with a few of them.

Many animals living in other parts of the world are larger and more attractive to look at than those of this island, but you would not wish to try to make friends with all of them, though I am sure you would enjoy seeing them at a large zoo where they live in comfort and are properly cared for. At Whipsnade, in Bedfordshire, there is a wonderful zoo where animals live naturally, as they would in their native lands.

On Chart 47 you will find pictures of some wild animals that live in hot countries. There is the *elephant*, who lives in India. How large it is! Look at its long trunk, with which it can pick up quite small things. It would be pleased to take an apple from your hand and put it into its mouth with its trunk. Look at its strong ivory tusks, with which it can drive away its enemies. The people of India are glad to have elephants in their land. Elephants work for them and allow them to ride on their backs when they wish to travel. The *lion* also lives in India, and in Africa and America as well. Though he is wild, he is a noble animal, and is often called the King of Beasts. There is a small elephant which lives in Africa, but it is not so intelligent as the Indian elephant. The *rhinoceros* and *hippopotamus* are large animals which live in Africa. They both like to take long cool baths. The rhinoceros often covers itself with mud to stop the forest insects biting it. Look at the long-necked *giraffe*, whose home is also in Africa. He stretches up to tall trees and eats the leaves on them. The giraffe must always have plenty of leaves to eat. The *zebra* comes from the plains of South-east Africa. It likes to gallop like a horse. Its wonderful striped coat hides it from many enemies. The *leopard* is a large wild cat. It likes to climb trees in the forests of South-east Asia. *Monkeys* live among the forest trees of India, Africa and South America.

Some are very small, while others, like the gorilla of Ethiopia, are as large as a man. I expect you have enjoyed watching the many monkeys climb and jump at one of the zoos in this land. I hope you remembered to take some nuts for them to eat.

On Chart 48, you can see the *polar bear* and *reindeer* which live amongst the snow and ice near to the North Pole. The reindeer is a most useful animal. It draws sledges over the ice and snow for the people of Lapland. They also make cheese and butter from its milk. *Sea-elephants*, *sea-lions* and *seals* enjoy swimming in the cold icy northern waters. The *snow-hare* and *arctic fox* like grassy spots in the far north of Canada. In winter they change the colour of their dark coats to a snowy white, so that enemies cannot see them as they move about. The *caribou*, which also lives in the cold north and Canada, is like the reindeer of Lapland, but rather larger.

The animals shown on Chart 49 are not so large as most of those you have seen on Charts 47 and 48. The *puma* is a wild cat like the leopard. Its home is in the Rocky mountains of Canada, amongst the thick reeds and long grass. The *lynx* is found on the northern plains of Siberia and Canada. It has very bright eyes, which make it sharp and quick to see. The *skunk* and *coyote* also have their homes in America. The skunk sends out a most unpleasant smell in order to keep its enemies away. The coyote is a wolf which runs wild on the northern prairies. The *cola-bear*, *wallaby* and *opossum* live in Australia. They all like to climb trees. The wallaby and opossum are better climbers than the bear. The cola-bear is rather lazy. He just likes to climb into a tree and go to sleep. The *Grecian goat* is found in Southern Asia and, like all goats, is a great mountain-climber. The *red deer* lives in the Highlands of Scotland. It has very large antlers, which grow bigger, with more points, every year. It fights every enemy with these great antlers.

SOMETHING TO DO

(i) Try to visit a zoo and get a book about wild animals from a children's public library. Read about the wild animals shown in these charts and also about other wild animals which live near them.

(ii) Make a Zoo Book. Divide it into three parts: one for each of these charts. Write down the animals shown for each region, and add the names of as many others as you can find.

(iii) The lion and tiger are both great wild cats. The tiger is not liked by anyone. The lion is much admired. Write about the animals, and say why one is admired and the other is not.

ANIMALS OF THE WORLD

Chart 50: Tiger Story

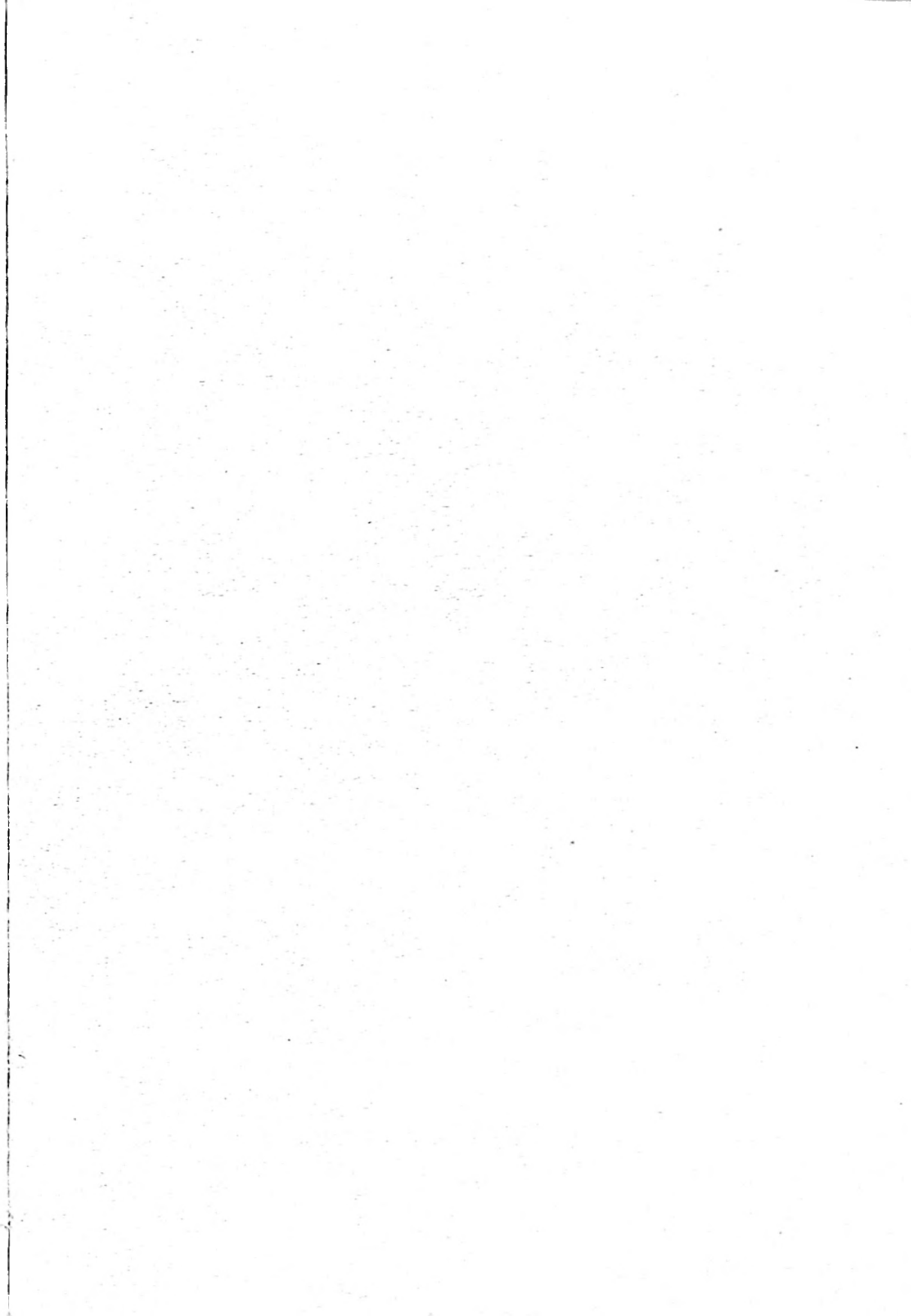
THE *lion* is the largest member of the cat family. With his large mane and handsome head he looks a very noble creature. Father Lion never turns his back upon an enemy. He kills only when he is hungry, and does not usually attack small animals. With his eyes he can see all round him, and thus save himself from many troubles.

The *tiger* also belongs to the cat family, but he is a very different animal from the lion. He will hide in the bushes and long grass, near to a river, and watch for thirsty animals which come to drink. Then, whether he is hungry or not, he will spring out and kill them. Not only does he kill other animals, but he will fight, and try to kill his own brother tigers if by accident they come near to him. Nobody likes the tiger. He is the most hated animal in the jungle. Yet when this great wild creature meets something that it does not understand it is not always able to overcome it and obtain what it really needs. Look at the pictures on Chart 50. They tell a true story of two tigers, one of which is larger and more handsome than the other. Both were thirsty, and longed for a drink of water. Near to them there was a pool of fresh clear water but the early morning was cold and the water on the pond had frozen. The large handsome tiger was easily discouraged when it could not find an easy way to get at the water and so quench its thirst. The second tiger stayed a while by the pool, and being more patient and adventurous than the first it found a way to overcome the difficulty.

SOMETHING TO DO

(i) Look carefully at each picture and write the story about these two tigers who were both thirsty.

(ii) Read "The Jungle Book," written by Rudyard Kipling, and stories about animals by Ernest Seeton-Thompson.



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