

## Seedlings Programme



Dear Teacher

We are delighted to introduce you to our **Seedlings Programme** for primary schools. Aware of the ever increasing demands on your time and energy, we hope that the Seedlings Programme will assist you in a very practical, yet educational way.

Part of Bord Bia's role is to contribute to the health and wellbeing of the nation by promoting increased consumption of fruit and vegetables as part of a balanced diet. The Board also promotes the purchasing of plants and flowers and gardening as an enjoyable leisure activity, which also improves the environment we live in.

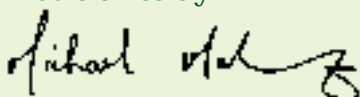
As part of promoting an awareness of healthy eating and living, we want to support you in your work and particularly in those areas of the primary school curriculum in which we have a mutual interest. By working through the Seedlings Programme you will cover a substantial part of the Science and S.P.H.E. curriculum as set out in the revised Primary School Curriculum, 1999. You will also be covering significant areas of the Language (English) and Arts (Visual and Musical) curriculum.

To date the Seedlings Programme contains two packs - one for the junior and senior infant classes and one for first and second class. In time this will be extended to the senior classes. The enclosed Seedlings Pack contains six original posters with corresponding lesson plans and worksheets. A wall planner highlighting the appropriate time of the year for each lesson is also included. In researching, planning and producing these lessons, we have sought to be of practical assistance, providing a classroom resource in which the preparatory elements of your work are available through this pack.

These lessons have been compiled by an experienced primary teacher with several years' expertise in the development of classroom based materials. As part of piloting this material, she has received the support and critique of teachers and their pupils in a representative sample of different schools in both urban and rural locations. Our own horticultural advisors have referenced the lessons too.

I hope that you and your class will benefit from the Seedlings Programme.

Yours sincerely



Michael Maloney  
Director of Horticulture  
Bord Bia



The enclosed lesson plans draw from the Primary School Curriculum as follows:

### SCIENCE

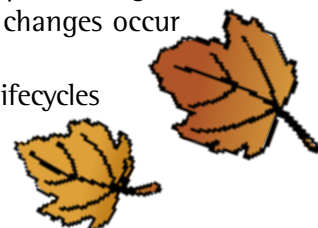
#### STRAND - PLANTS

##### *Variety and characteristics of living things*

- Identify common trees and other plants.
- Develop some awareness of plants from wider environments.
- Recognise and describe the parts of some plants - root, leaf, stem, trunk, branch, flower, petal etc.
- Recognise that trees are plants.
- Group and sort plants into plants we eat and plants we don't eat.

##### *Processes of life*

- Appreciate that plants have essential needs for growth.
- Explore through the growing of seeds, the needs of plants for water and heat.
- Design, make or adapt a suitable container for growing seeds.
- Investigate how plants respond to light.
- Understand that seasonal changes occur in living things.
- Become familiar with the lifecycles of common plants.



## ENGLISH

### STRAND - RECEPTIVENESS TO LANGUAGE

- Listen to a story or description and respond to it.
- Hear, repeat and elaborate words, phrases and sentences modelled by the teacher.

*Developing cognitive abilities through oral language*

- Listen to a story or narrative and ask questions about it.
- Focus on descriptive detail and begin to be explicit in relation to people, places, times, colours, processes, events, colour, shape, size etc.

*Developing emotional and imaginative life through oral language*

- Listen to, learn and retell a rich variety of stories, rhymes and songs.
- Respond through discussion to stories, rhymes and songs heard and learned.



## SPHE

### STRAND - TAKING CARE OF MY BODY

*Food and nutrition*

- Become aware of the importance of food for growth and development.
- Explore food preferences and their role in a balanced diet.
- Discuss and explore some qualities and categories of food.
- Realise the importance of good hygiene in relation to food preparation.

*Environmental care*

- Appreciate the environment and realise that each individual has a community and individual responsibility for protecting and caring for the environment (i.e. in this lesson, the classroom).

## ART

### STRAND - MAKING CONSTRUCTIONS

- Look at, investigate and talk about spatial arrangements and balance in collections of objects.
- Explore and experiment with the properties and characteristics of materials in making structures.
- Grouping, balancing and building with components that allow free play.
- Discovering the tallest, widest, lowest parts of the arrangement.

### STRAND – PAINT AND COLOUR

- Discover colour in the visual environment to help develop sensitivity to colour.
- Discover colour, pattern and rhythm in colourful objects.
- Discover the relationship between how things feel and how they look.

## METHODOLOGIES

The methodologies used will include:

- Discovery learning
- Teacher guided learning
- Poetry reading
- Talk and discussion
- Interpreting through art (drawing).



## SKILLS DEVELOPMENT

Skills developed will include:

- Working scientifically and imaginatively
- Imagining – what is possible in an imaginary world and in the ‘scientific’ world
- Questioning, predicting, sorting and classifying, investigating and experimenting, recording and communicating.

## ASSESSMENT

- Teacher observation.
- Teacher designed tasks (carrying out, recording results of experiment).
- Oral response in discussion.

## THE CALENDAR (Junior/Senior Infants and 1st/2nd class)

Fill in the children’s birthdays and write in the various ‘Special Days’.

### DISCUSSION

- How many seasons are there?
- What are their names?
- The characteristics of each season – what season has most sunlight, is coldest, has Christmas in it, has Halloween in it, has Easter etc.
- What season are we in now?
- What season comes next?
- What season is your birthday in?



**AIM:** To help children, through simple experiments, to learn a basic characteristic of all living things which is that: living things grow and that seeds are living things.

### DEVELOPMENT OF THE LESSON

You will need:

- Some watercress seeds
- Water
- Some empty yogurt pots (or similar)
- A few small pebbles or gravel
- Compost
- Some fingernail clippings (children might volunteer these).

### DISCUSSION

- What does the word 'grow' mean?
- Name some things that 'grow' . . . babies, grass, flowers, hair, nails, feet, puppies, kittens, trees etc.
- What helps you to grow?
- What helps animals to grow?
- What helps flowers grow?
- Can you think of anything which doesn't grow?
- Sort and group what the children offer into things that grow/things that don't grow.

### LET'S EXPERIMENT

Depending on numbers and manageability, children may set up experiments in groups or one experiment for the whole class. If the pots holding the watercress seeds were yellow and given a 'Bart Simpson' look, the watercress as hair would be a novelty to take home at the end.

- Give each group three pots and a spoon.
- Fill each pot with compost.
- Place a sample of pebbles, seeds and fingernails in the separate pots.
- Water all pots.

The teacher should set up two sets of control pots – one where none of the pots get water and one where the pots are covered i.e. deprived of light. Since these will not grow, it might be best if they are seen to be the teacher's. Organise a table/area of the classroom to accommodate whatever number of experiments you have.

### LET'S GUESS

- Speculate about which samples will grow and why.
- Draw a picture of each pot with its contents, putting a 'correct tick' beside it if they think it will grow and an X if they think it will not grow.

### RECORD

Observe, record by drawing and water the experiments at a particular time each day for the next few days.

### EVALUATION

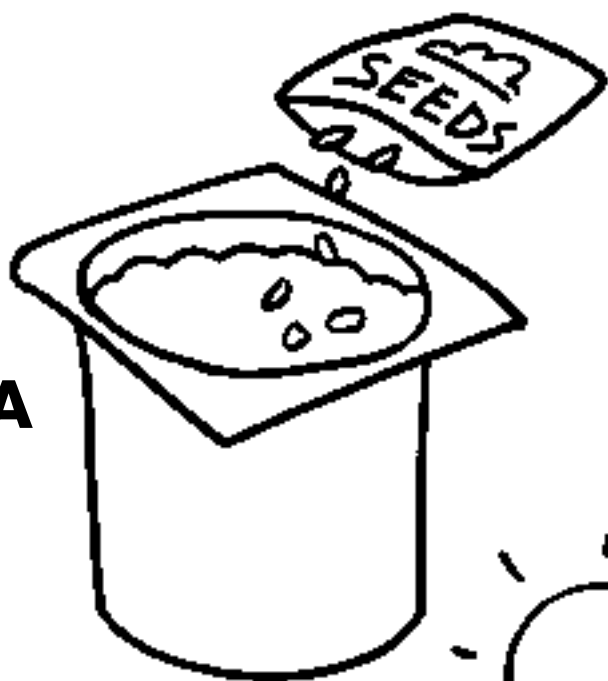
Discuss the results of the experiments.

### LET'S DO IT

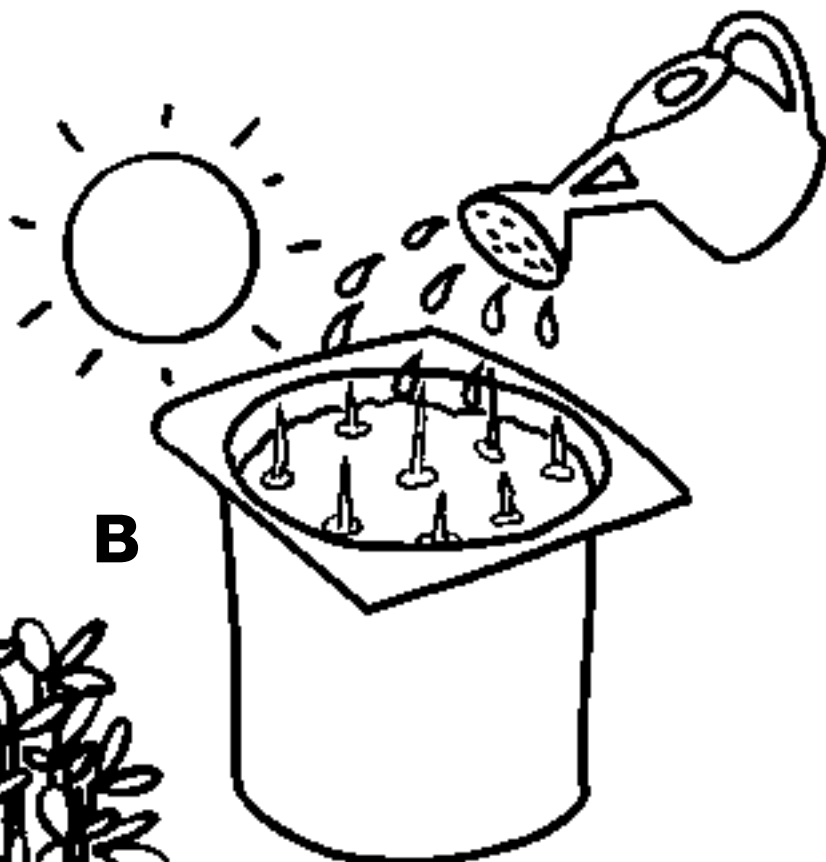
- Have the children do the actions in the poem *I'm A Seed* indicated in italics on the accompanying poster.
- Let the children take the watercress home so the whole family can see it and taste it.



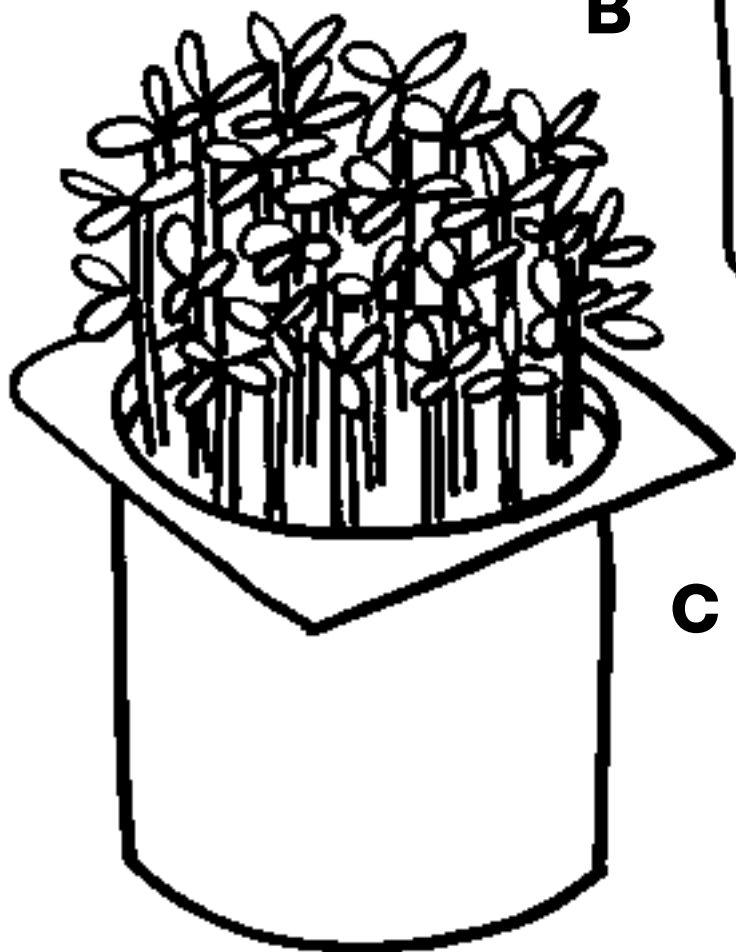
A



B



C



**AIM:** To develop the children's awareness of the Autumn season and their understanding of what happens, horticulturally, in Autumn.

### LOOK AT THE POSTER AND DISCUSS

- What time of year do you think it is?
- What is the farmer doing in Autumn?
- What is in the greengrocer's shop in Autumn?
- Where do you think the greengrocer got all these vegetables?
- How many of these vegetables can you name?
- Which of these vegetables have you eaten?
- Which is your favourite?
- What is the gardener doing in Autumn?
- Do you have a garden? What grows there?
- What is the child doing? Have you ever done this?

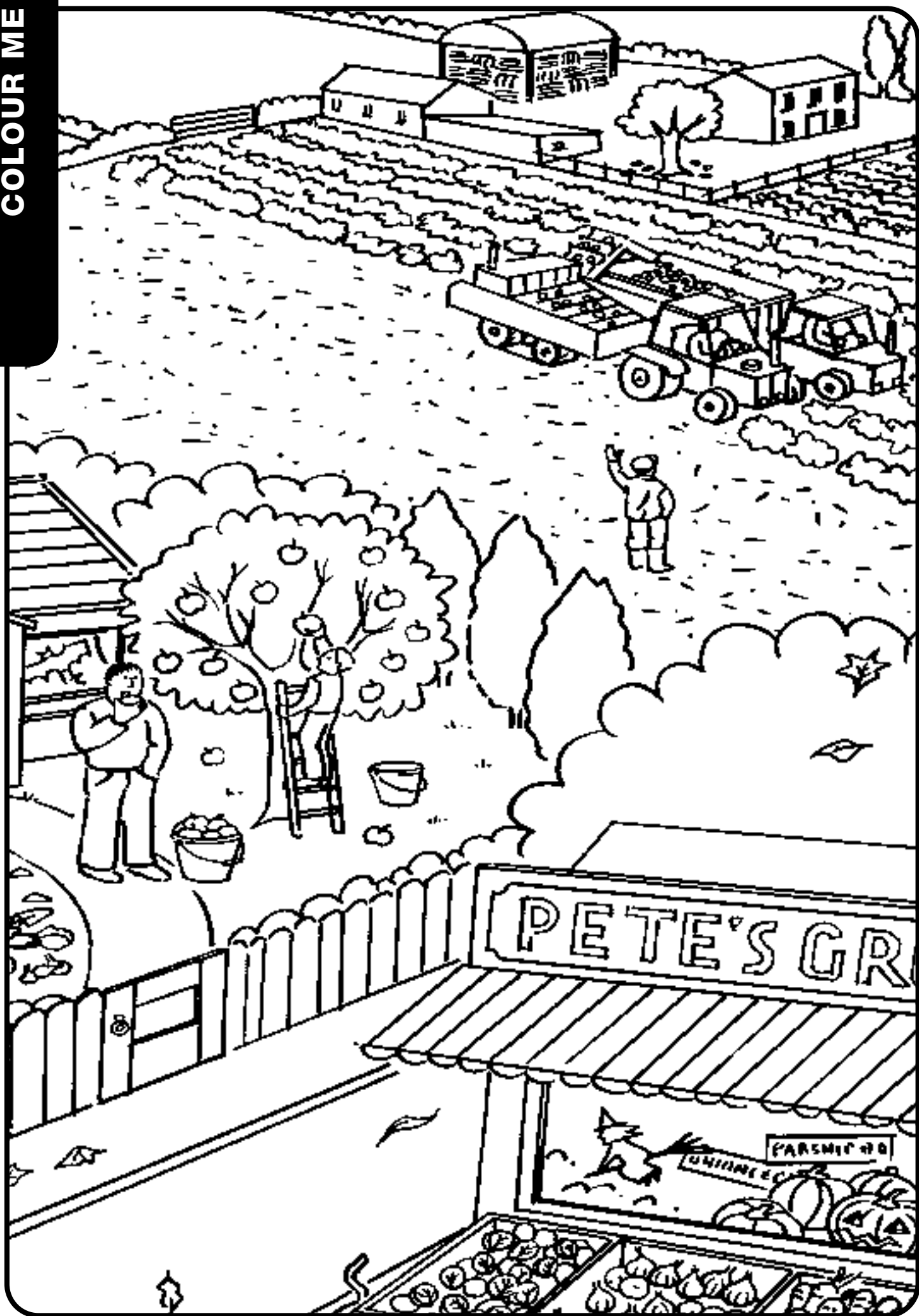
### WORKSHEET

- Colour the picture in.
- Name the fruit and vegetables you see in the picture.

### LET'S DO IT

- Invite the class to bring in pictures of or wrappers associated with any of the fruit and vegetables above e.g. crisp bag, juice carton etc. and assemble a fruit and vegetable montage called 'What we eat in Autumn'.
- Plant a class 'pot' with some snowdrop, daffodil or tulip bulbs. Point out the difference between these 'bulbs' and the seeds (watercress) the children have already planted in lesson 1. Explain that the bulb will be a source of food for the flower while it is under the ground.
- Ask children to bring in one vegetable or fruit. Dissect these, naming the more basic parts i.e. skin, flesh, seeds, roots, juice etc.





**AIM:** To develop the children's awareness of the Winter season and their understanding of what happens, horticulturally, in Winter.

**LOOK AT THE POSTER AND DISCUSS**

- What season do you think this is?
- What is the farmer doing?
- What can you see on the greengrocer's shelves?
- Where do you think bananas and oranges etc. come from? (Warm countries like the ones where we sometimes go on holiday etc.)
- Why isn't the gardener out working in her garden?
- What are the family doing?
- What soup do you like?
- What is your favourite dinner when the days are cold?

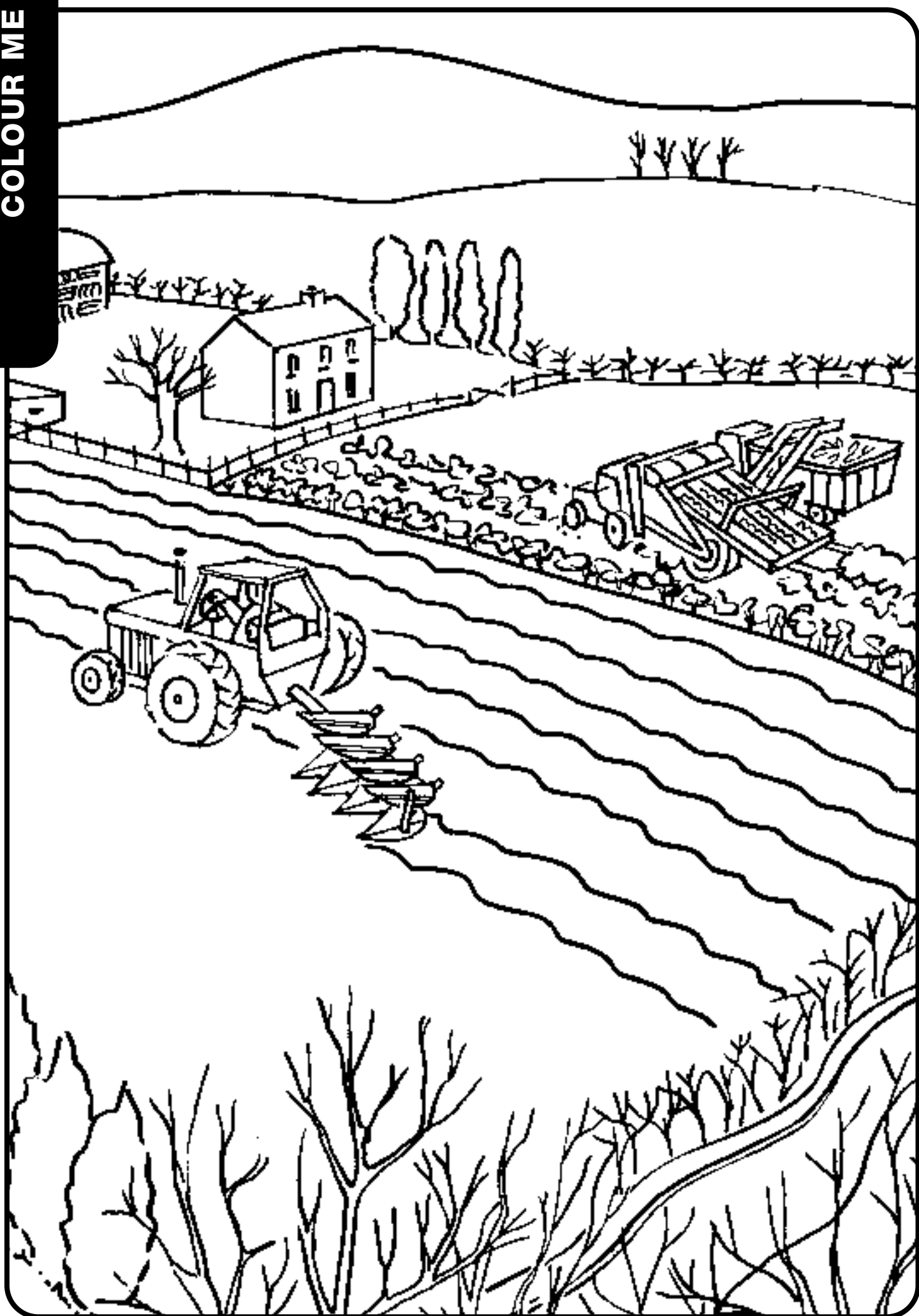
**WORKSHEET**

- Colour the picture in.
- Name the vegetable you see in the picture.

**LET'S DO IT**

- Assemble a 'Winter' nature table including the pot containing the bulbs which the children planted in Autumn.
- Make a bird table or choose a spot in the school grounds to act as a bird table. Feed the birds every day with lunch leftovers. Name the birds which visit.
- Check the bulbs (to confirm that 'nothing is happening' yet).







**AIM:** To develop the children's awareness of the Spring season and their understanding of what happens, horticulturally, in Spring.

**LOOK AT THE POSTER AND DISCUSS**

- What season is this?
- What is the farmer doing? What do you think he might grow in this field?
- What has the greengrocer got on his shelves in Spring? Have you ever eaten rhubarb?
- Have you ever eaten any of these? Which is your favourite?
- What is the gardener doing?
- What is the child doing? Are there any flowers growing around where you live? Do you know their names?

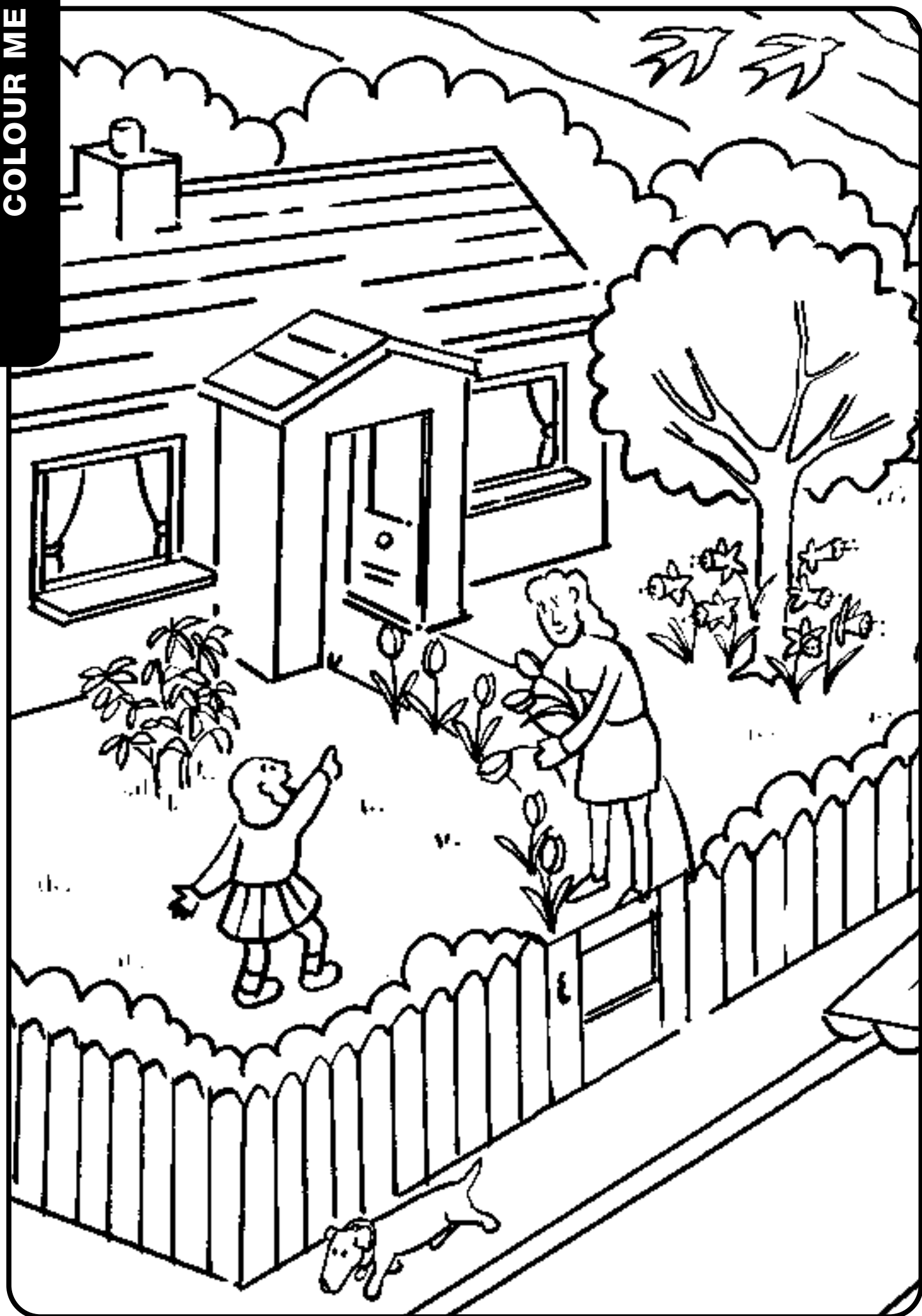
**WORKSHEET**

- Colour the picture in.
- Name the flowers you see in the picture.

**LET'S DO IT**

- Set some seed potatoes on a tray on the nature table where they can sprout.
- Sow some bedding plant seeds in trays with compost e.g. the trays which carrots are bought in the supermarket. Some seeds may be too tiny for young children to work with; seeds such as Nasturtium may be more suitable.
- Check on the bulbs planted last Autumn.





**AIM:** To develop the children's awareness of the Summer season and their understanding of what happens, horticulturally, in Summer.

**LOOK AT THE POSTER AND DISCUSS**

- Why are the potatoes being sprinkled with water?
- What can you see in the greengrocer's shop?
- How many of these can you name?
- Which of these have you eaten?
- Which is your favourite?
- What is the gardener doing?
- Have you ever seen anyone doing this?
- Do you like strawberries?
- What is your favourite way to eat strawberries?
- What is the child doing?

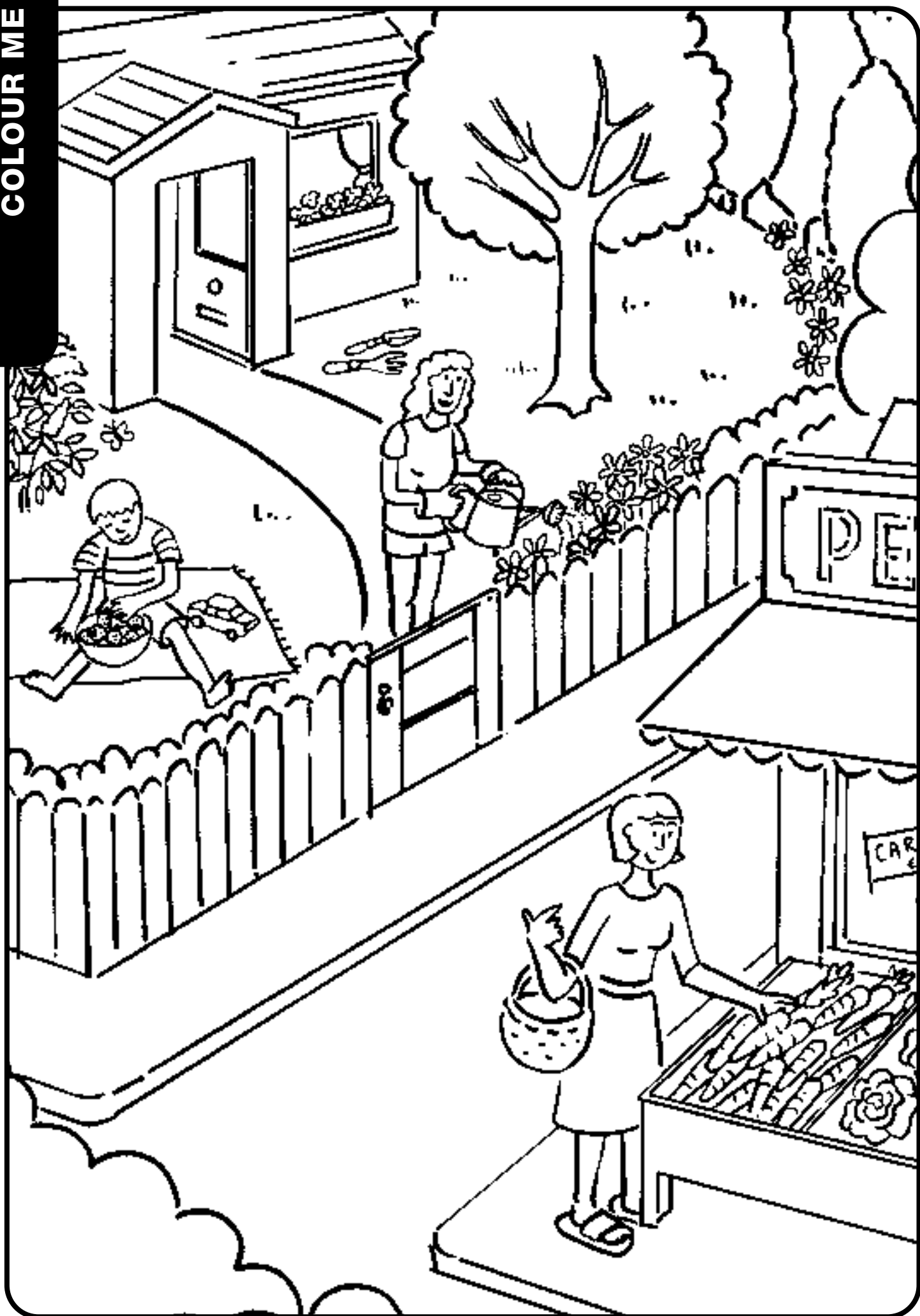
**WORKSHEET**

- Colour the picture in.
- Name the fruit and vegetables you see in the picture.

**LET'S DO IT**

- Plant the seeds (sown in trays in the Spring) outside in window boxes or hanging baskets in the school grounds. Use compost when planting. Your caretaker may help with this.





**AIM:** To develop the children's understanding of the role of food and especially that of fruit and vegetables in maintaining a healthy body.

### LET'S DO IT

In advance of this lesson, ask the children to bring in empty food containers of any kind and pictures to include milk, meat, fish, fruit, vegetables, cereals, bread, etc. as shown in the Food Pyramid poster.

### DEVELOPMENT OF THE LESSON (STORY)

## Mother Nature and the Jelly Baby!

You have heard of the Gingerbread Man who came to life, but do you know the story of the Jelly Baby who wanted to grow up? 'Grow up! Grow up! But you cannot grow up,' said the other Jelly Babies in the bag. 'Jelly Babies don't grow up'. 'I am tired of being a baby and I'm tired of being jelly. I am going to grow up to be a proper six year old,' this Jelly Baby insisted. It hopped out of its bag and tried to run off. But its jelly legs were not much good for running.

'What you need is some strong healthy bones that will carry your body wherever it wants to go'. The Jelly Baby looked up to see a funny old woman holding a glass in her hand. 'My name is Mother Nature,' she said. 'I am in charge of everything that grows. Here, drink this milk; it is good for babies; it helps them grow strong healthy bones,' she ordered.

The Jelly Baby gulped down the milk and immediately jumped up and ran off with all its new bones. But the day was hot and the sun shone down and soon the Jelly Baby had to stop again. 'Oh no!' it cried. 'I have strong bones but the rest of me is going all soft and sticky. What shall I do?' 'Here, eat this'. It was Mother Nature again. 'You have bones but your muscles are still jelly. Here is some meat and some fish'. The Jelly Baby gobbled the meat and fish. It grew strong healthy muscles which made the bones in its arms and legs run very fast, so fast in fact that it tripped over itself and fell like Jack and Jill headlong down the hill. Now the Jelly Baby bawled 'Boo hoo hoo' at the top of its voice.

'Dear me,' said Mother Nature. She wiped Jelly Baby's knees and nose which were bleeding. 'My good body,' Jelly Baby cried. 'Now it's ruined'. 'Don't cry,' Mother Nature said. 'Proper bodies are as good as magic – when a bone gets broken or skin gets cut or a tummy gets sick, it will heal itself to be as good as new – provided that person has been eating plenty of fruit and vegetables'. 'Here,' she said holding a bowl of fruit in one hand and a basket of vegetables in the other. 'Eat as much as you like'. The Jelly Baby took a carrot and an apple and gobbled them up. 'Yum,' it said. 'Look,' Mother Nature smiled. 'Your knees and your nose have stopped bleeding!'

The Jelly Baby was so happy that it jumped up and ran round and round – until it ran right out of energy and had to stop like a car that had run out of petrol. 'Oh no! What's wrong with me now – why have I stopped?' 'Six year old children need lots and lots of energy,' Mother Nature said. 'Here, have some bread or some potatoes or some cereal'. The Jelly Baby chose two slices of brown bread which it gobbled and was about to run off again.

'Before you go,' Mother Nature said, 'I have something to show you'. She reached Jelly Baby a mirror. It looked in the mirror. 'Who's that?' it asked. 'That is you,' Mother Nature replied. 'A fine, tall six year old child with curly red hair and a big smile'. 'Wow!' exclaimed Jelly Baby smiling. 'And look! I have teeth and I have hair. I have always wanted teeth and hair. Now I am not a jelly baby anymore'. 'Now I have something to give you, something all children love,' said Mother Nature and she held out a sweet – a red jelly baby.



### DISCUSS THE STORY

### DISCUSS THE FOOD PYRAMID (SEE POSTER)

Invite the children to finish the picture below of the Jelly Baby by adding in the following: bones, skeleton, muscles (perhaps using dotted black lines), teeth, eyes, hair.

HELP ME GROW UP

