Oxford International Resources

2

Science

Student Book

Second Edition

Primary

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2

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Student Book

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How to Use this Book

This Student Book for *Oxford International Primary Science* forms part of your science lessons for this year. Your teacher will introduce the ideas through whole-class activities, then you will explore them in more detail using this book, before all coming back together to discuss what you have learned. Find out more at: www.oxfordprimary.com/international-science

Structure of the book

This book is divided into five units plus a *Being a Good Scientist* introduction and a picture Glossary:

Being a Good Scientist
Unit 1 Living and Growing
Unit 2 Growing Plants
Unit 3 Habitats and Food Chains
Unit 4 Uses of Materials
Unit 5 Day and Night
Glossary

Each unit covers a different strand of science. You will need a science notebook to write in and to record your investigation results and conclusions.

Being a good scientist

To be a good scientist you need to be curious and ask questions. This section will help you think about how to develop your scientific skills to work like a scientist.

What you will find in each unit

There are three types of lessons:

Wow introduces each unit's scientific ideas and key words. It tells you what you will learn in the unit and lets you discuss what you already know.

Focused lessons cover the scientific knowledge and skills you need to learn this year.

In **What have I learned?** you review your understanding and show your teacher what you have learned about the unit.

What you will find in the lessons

Although each lesson is unique, they have common features:

The words on the Wow pages are included in the picture glossary at the back of the book. You can add your own notes for each word.

Key words
bulb
grow
Gives you the key words for the lesson.

In this lesson you will sort materials into groups. Tells you what you will learn in the lesson.


Questions to help you talk to each other and share ideas about the science you are learning and the investigations you do.


Practical and research activities to investigate and report on science topics. Sometimes your teacher will ask you to use different equipment, which is available in school. They may also ask you to carry out a test in a different way, to make sure you are safe.

Challenges you to take your learning further.

Key idea Summarises what you have learned.

Additional features

Think back Reminds you what has been covered before.

Science fact Interesting and amazing science facts.


Highlights the skills needed to be a good scientist.


Important notes about how to stay safe.

Teacher's Guide

There is a Teacher's Guide to help your teacher to work out the resources needed and to offer alternative activities and approaches.

Workbook

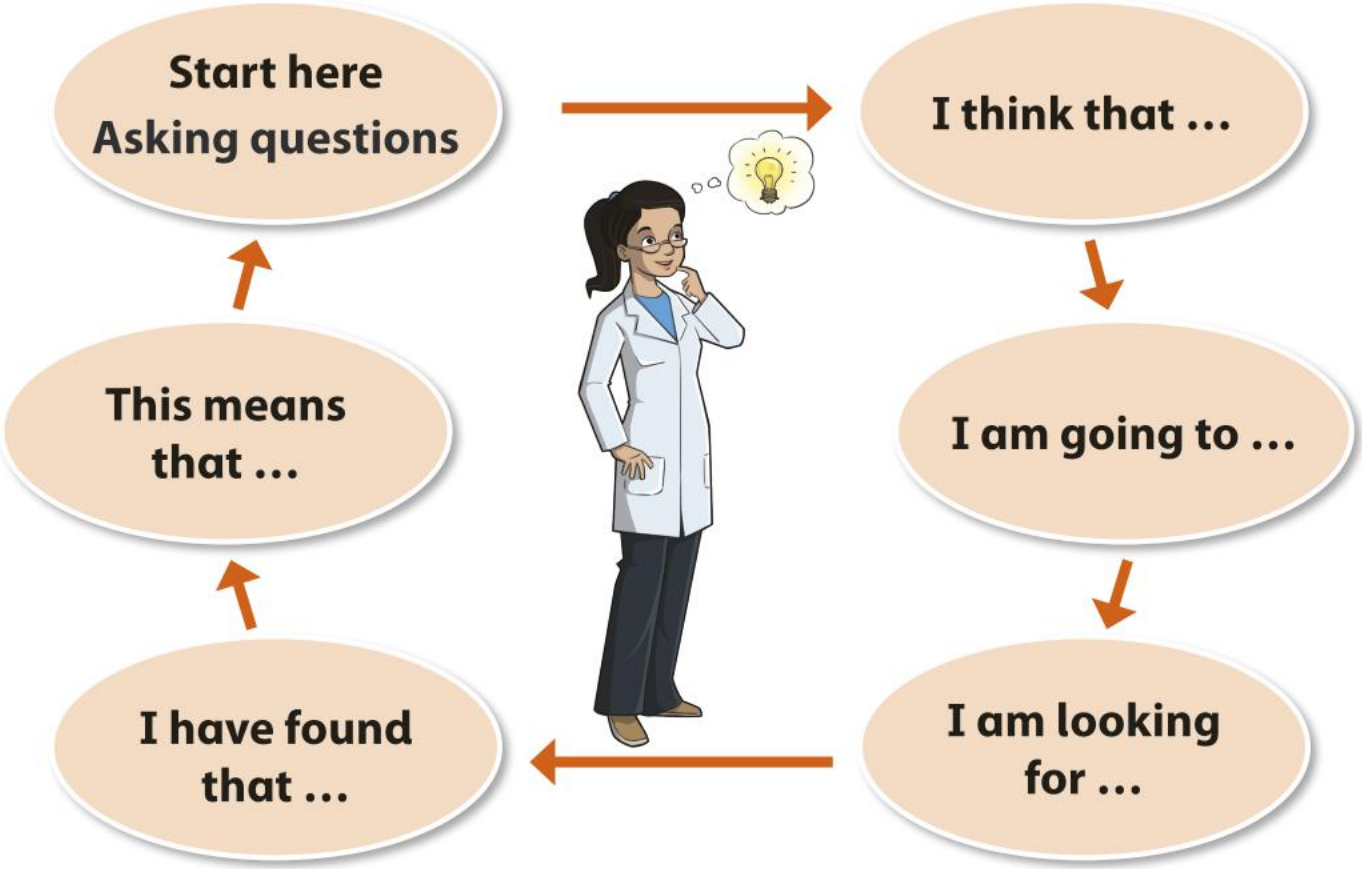
At the bottom of each page in this book is a link to a Workbook, where you can record your work and get extra practice to do in your lesson or at home.

Being a Good Scientist

Science is the study of the world around us. To be a good scientist you need to be curious and ask questions. This section will help you think about how to develop your scientific skills to work like a scientist.

Scientists look carefully at the world to explain why things happen and to guess if things may happen. Science is used to develop new technologies. It also helps us know more about health and diseases. This means we can develop medicines and machines to keep people healthy.

The diagram shows the steps you can take to find out about things (investigate) like a scientist.

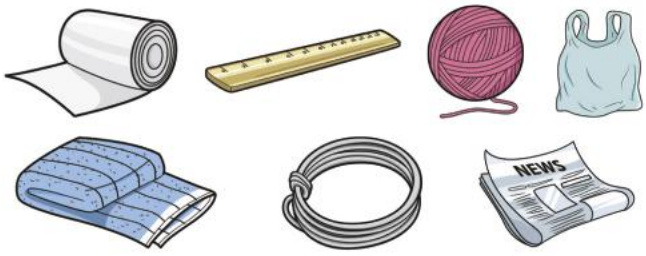


Learning to be a scientist allows you to develop scientific skills such as observing (looking), measuring and recording. It helps you to notice patterns in the things you observe and to sort things into groups. It also helps you to test our own ideas about how the world works.

Asking questions

Scientists ask questions about the world around them. This is called scientific enquiry.

A good way to start is to think of questions that start with words such as 'how', 'which', 'what', 'do' and 'does'.



How are these materials different?

Which materials will feel soft?

Think of your own questions to ask about the different materials.

The questions you ask will give you a good start to your investigation.

I think that ...

Next, scientists try to work out or guess what will happen. Scientists call this a prediction.

They need to talk about their ideas and what they think will happen.

You might have already learned something about the question you are trying to answer. Scientists usually know something before they make predictions.

Use what you know about materials to help you think about this question.

Which of the materials will stretch the most?

Do you think the plastic bag will be very stretchy?

What did you think about to help you choose?

I am going to ...

Scientists plan what they are going to do. They always discuss their plans before they start. This helps to check that the plan will work.

Scientists make their investigations fair by following some simple rules:

- They think about what they will keep the same.
- They think about what they will change.

For example, when investigating which substances dissolve in water, you should use the same volume of water to test each one. You should also stir them for the same amount of time, and have them at the same temperature. This makes sure that the only change is the substance you are adding to the water.

Scientists think about the equipment they need. They make a list and make sure everything is available.

For example, if you are going to test substances dissolving, you might make an equipment list like this:

Science fact

Scientists do not always plan their own investigations. Sometimes they follow other scientist's plans. This is why it is very important to make the plans easy to follow.

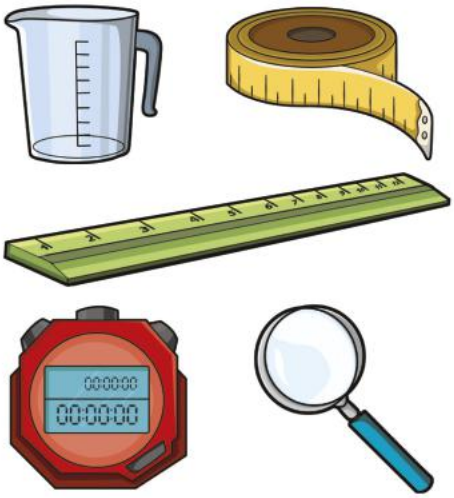
I am looking for ...

Scientists look closely at what is happening in their investigation. They use all of their senses. These are called observation skills.

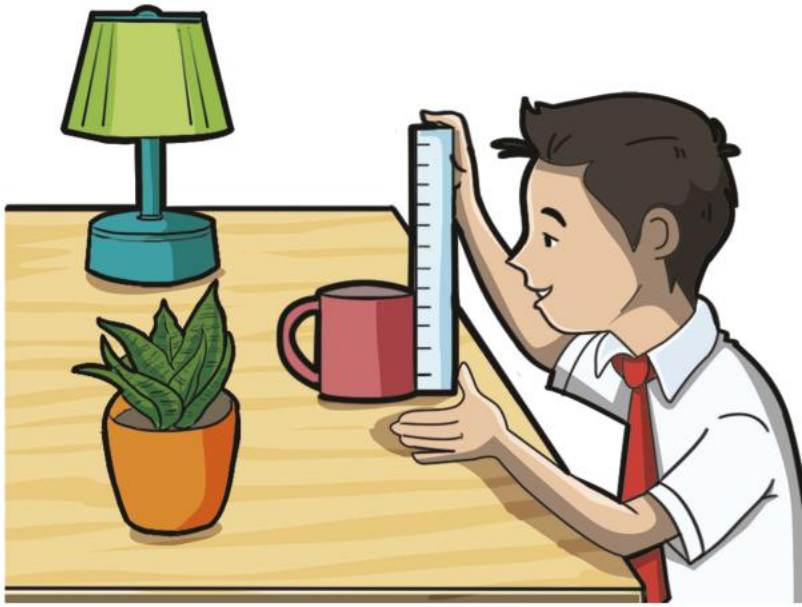
During an investigation you will look, listen, smell, touch and sometimes taste.

Warning! Only smell, taste and touch things if your teacher tells you it is safe. Many things can be poisonous.

You may need to use equipment to help with your observations. Some of the pieces of equipment you will use in this book are shown below.



Good scientists use equipment carefully. They take a measurement more than once. This is to make sure they have not made any mistakes.



You can practise measuring the heights of three objects to find out how many centimetres high they are.

Which piece of equipment will you use?

When measuring the plant where will you start from and where will you end?

Tell your partner your measurements.