



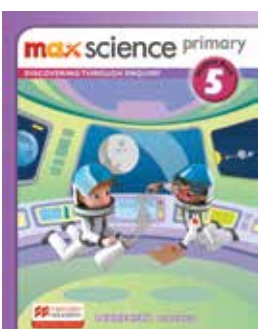
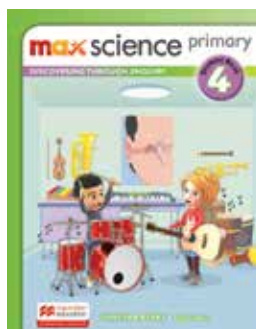
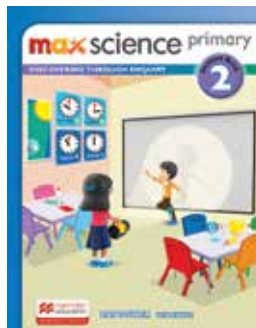
Unlock the power of learning science in English



max science primary

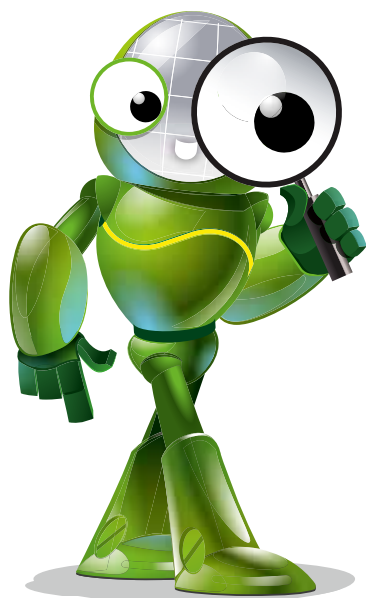
DISCOVERING THROUGH ENQUIRY

PRIMARY • YEARS 1 – 6



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"The Max Science primary: Discovering through Enquiry learning materials have been written by a skilled group of international science educators who have been guided by best practice in modern science pedagogy. Our guiding philosophy has been to design a course enabling a deeper understanding of science, building confidence in key conceptual areas through a set of thinking, talking and practical tasks where learners work together, are encouraged to share their own thinking and are aware of their own progress in the journey towards understanding. All our supporting text has been written with particular sensitivity and guidance for students whose first language may not be English."

Bob Kibble, Series Editor



The DNA of Max Science primary

Max Science primary: Discovering through Enquiry is a highly engaging and effective print and digital scheme based on the most successful teaching methodologies used in world science today. Over 6 stages (Years 1 – 6) Max Science primary introduces pupils to the key concepts and topics of primary Biology, Chemistry and Physics with carefully scaffolded resources that build knowledge and confidence throughout the course. The materials take the form of engaging Student Books, Workbooks, Journals and Teacher's Guides. The aim? To encourage curiosity, critical thinking and discussion through a vibrant and stimulating approach to science.



Dissecting Max Science primary

All the content has been written by a highly experienced and knowledgeable author team who share a philosophy of learning grounded in science education research and best practice.

- For Years 1-6, divided into six units of work per year/two units per term
- Supports the development of key scientific skills such as enquiry based learning and critical thinking
- Language support for teachers and learners whose first language may not be English
- Is part of the Macmillan Education International Curriculum 'Promise', meaning that the course includes ongoing assessment, school-home journals, digital resources, tools for independent learning and professional development support for teachers
- 100% match to the Cambridge Primary Science Curriculum Framework



PART OF THE **INTO** GROUP

Teaching through English: Primary Science Training

The Teaching through English: Primary Science teacher development programme has been designed in conjunction with NILE to support primary maths and science teachers with a specific focus on supporting international and English-medium schools where teachers and learners may not have English as their first language. The course aims to develop teachers' confidence and skills in supporting young learners to understand and apply scientific ideas and concepts in English.

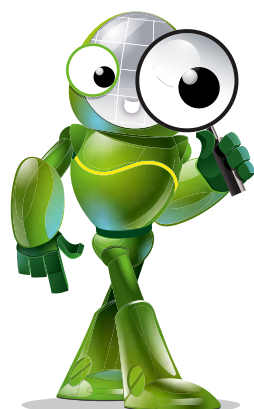


The Science behind the Science

Max Science: Discovering through Enquiry is underpinned by four concepts grounded in science education research and best practice.

The four concepts are:

<p>Social Constructivism</p>	<p>Encouraging the conceptual understanding of really big ideas.</p> <p>Recognising that students will have already formed ideas about why things happen.</p> <p>Listening to one another's ideas.</p> <p>Sharing knowledge.</p> <p>Thinking creatively and working out new and better explanations.</p>
<p>Formative Assessment</p>	<p>Used throughout lessons and topics.</p> <p>Feedback helps learners know how to improve. Uses many methods to assess what learners know, understand and can do e.g. listening to what learners say, looking at drawings, watching learners during activities.</p> <p>Often interactive between learner and teacher e.g. "what do you think if..."</p> <p>Can be very open-ended, meaning learners can go into lots of extra detail.</p> <p>Can have a huge benefit to learning – not just in science!</p>
<p>Cognitive Acceleration</p>	<p>Making neural connections and understanding ideas and concepts, which lead to the 'aha' moment.</p> <p>Getting learners to think rather than just learn information.</p> <p>Sharply focuses on a particular skill or concept.</p> <p>Uses exploration, discussion and challenges. Scaffolds learning so that learners can make rapid progress e.g. provide key words for learners to use when they explain a scientific idea.</p> <p>Provides cognitive conflict e.g. learners believe that plants need sunlight so how do some plants grow under trees in a forest?</p>
<p>The nature of science (scientific enquiry)</p>	<p>Science is just as much a way of working as a body of knowledge.</p> <p>Scientific understanding is based on a collection of big ideas.</p> <p>Scientific knowledge and understanding is just our best current explanation of the universe and everything in it.</p>



The Teaching Approach

Lessons are structured around three main components – orientation, exploration and accommodation - to ensure that the time in the classroom is one that is inspiring, accessible and engaging.

- **Orientation:** The ‘why’ behind activities. This phase gives direction to our learning journey by activating and then building on prior knowledge. What is being found out? Why is it important?
- **Exploration:** The ‘hands-on’ aspect of the lesson. Exploring, experimenting, investigating and finding out.
- **Accommodation:** The review. A consolidation of the lesson through the acts of explaining and discussing, writing of notes and a questioning of what has been learnt.

ORIENTATION

- What sort of learning does this orientation task encourage?
- What will learners be doing?
- What might they be saying?

6.2 Where do plants come from?

In this section, I am learning:

- what seeds and plants need to grow
- to make a prediction

Key words
grow
predict
seed
water

Look at Picture A. Talk about what is happening in your group.

Now look at Picture B. Can you predict how the plant got there? Why did it grow? Why are there no other plants there?

Picture A

Picture B

6 Growing Plants 85

EXPLORATION

- Guided group activity
- Clear structure
- Short, simple task

SCAFFOLDING

Illustration and hint to support learning.

DISCURSIVE ACTIVITY

- Clear images
- Shared ideas
- Formative assessment to close.

ACCOMMODATION

Directs learners to workbook task for this activity.

3 Investigating reflection

Work in small groups.

a. You will need a ray box and a mirror. With the room lights dimmed, learn how to make a single beam of light using the ray box.

b. Direct the single beam to a mirror standing in a holder. The mirror should be vertical. Observe what happens to the beam.

WB

Hint
Don't forget to put arrows on the light rays you draw to show their direction.

Some uses of mirrors

4 How we can use mirrors

a. Talk with a partner about how the mirrors in each of these photos above are used.

b. Write a sentence explaining how we use each of these mirrors or draw a diagram showing light rays to help explain each use.

WB

16 Sources of light and seeing

Investigating the effect of temperature

5 How does temperature affect how quickly sugar dissolves?

In your Workbook, record each stage in your investigation as you work through it. Look back to the diagram on the previous page to help you make decisions yourself.

a) Predicting

Predict the pattern you expect to find.

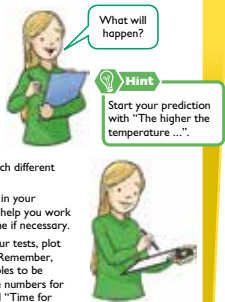
b) Carrying out and recording

Now start your tests.

Repeat them three times with each different temperature if you have time.

Record your results in a table in your Workbook. Your teacher will help you work out the average (or mean) time if necessary.

When you have finished all your tests, plot your results on a line graph. (Remember, a line graph needs both variables to be measured – and here we have numbers for both “Temperature in °C” and “Time for sugar to dissolve (in seconds)”.)



INVESTIGATING

- Planning
- Predicting
- Measuring
- Interpreting



Student Books

Student Books 1 – 6

Print and Digital formats available

Written and designed by leading science educators, these books form the basis for active, enquiry-based classroom learning. They are in full colour throughout and match the requirements for the Cambridge Primary Science curriculum framework. Each topic is introduced through engaging activities designed to stimulate creative scientific thinking. Whole class teaching is focused on firmly embedding the concepts through active individual, pair and group activities and carefully scaffolded learning. Units end with checklists and consolidation sections to ensure learners understand the key concepts.



1 Skeleton and muscles

In this unit, I am learning:

- that our skeleton is made up of bones
- about the main jobs of the skeleton
- how the skeleton grows and moves
- how muscles and bones work together for movement
- about the role of drugs as medicines
- that there are different types of skeleton.

Key-words
 animal
 contract
 fracture
 invertebrate
 muscles
 relax
 skeleton
 vertebrae
 X-ray

What are the children doing? What helps them to move their bodies? How do they keep their bodies upright?



6

Student Book 4

1.1 Skeletons

In this section, I am learning:

- that bones form our skeleton
- about X-ray images.

Key-words
 animal
 discuss
 fracture
 picture
 skeleton
 X-ray
 bones
 fingers
 human
 vertebrate

What can the children find out from looking at these old bones?


Skeletons can tell us secrets
 Many animals have bones inside their bodies. Animals with bones inside their bodies are called **vertebrates**. The **bones** form a **skeleton**. Bones are hard. They exist for a long time after an animal has died.

Dinosaurs lived millions of years ago. No one has ever seen a living dinosaur. Scientists called **palaeontologists** look at dinosaur bones to get an idea of what these animals looked like.

Hint
 Think about how dinosaurs moved. What do you think they ate? How did they fight?

1 Drawing the dinosaurs

- Look at the picture of a dinosaur skeleton. Imagine what the dinosaurs looked like in real life. **Discuss** your ideas with your partner.
- Draw a picture in your Workbook.



WB 1

I wonder what this animal looked like when it was alive.
 Maybe we can join all the bones together to make a skeleton.

1 Skeleton and muscles 7

Student Book 4

2 Reversible and irreversible changes

In this unit, I am learning:

- how to distinguish between reversible and irreversible changes
- about dissolving and making solutions
- how to separate different mixtures by filtration and/or evaporation

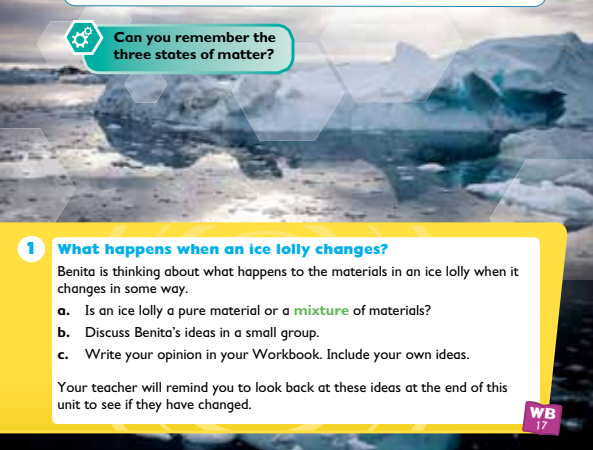
Key-words
 change
 mixture

Can you remember the three states of matter?

1 What happens when an ice lolly changes?
 Benita is thinking about what happens to the materials in an ice lolly when it changes in some way.

- Is an ice lolly a pure material or a **mixture** of materials?
- Discuss Benita's ideas in a small group.
- Write your opinion in your Workbook. Include your own ideas.

Your teacher will remind you to look back at these ideas at the end of this unit to see if they have changed.







WB 17

25

Student Book 6

4 Examples of reversible changes

Look at these examples of reversible changes in action. Work with a partner. Answer these questions in your Workbook.

- Why can cars not drive on a new tarmac road for a couple of days?

WB 20
- Which material is changing state when we defrost a frozen meal? Name the change of state taking place. If you turn the microwave oven on too high, what will you see coming out of the oven when you open its door? Explain why. What will happen to this material when it meets a cold surface?

WB 20
- Describe the changes of state when you ice a cake using a bar of chocolate to start with.

WB 20
- The jeweller starts with solid gold to make rings. What do icing the cake with chocolate and making gold rings have in common? How are they different?

WB 20

Hint
 Think of the temperature of each material as it changes.

30 2 Reversible and irreversible changes

Student Book 6



Journals

Journals 1 – 6

The Journals provide a unique way to engage parents in their child's learning as well as providing the opportunity to consolidate their classroom learning at home through reflective practice. They are packed full of engaging practical activities that not only back up the scientific concepts introduced in the classroom but also show how science is all around us all the time.

Introducing the Max Science Primary Journal

The **Max Science primary Journal** complements the **Max Science primary** series by providing a link between learning at school and learning at home. It matches the topics from the course and the Cambridge Primary Science Curriculum framework with a topic-by-topic series of structured activities for learners to complete with an adult.

As a parent or carer, it is sometimes difficult to know what is being taught in school and how your child is really doing in a subject. Do they enjoy it? Do they understand the concepts and the vocabulary? This Journal lets you spend time with your learner at home in a supportive way and find out how they are doing in science.

Introducing the topic

A cartoon image and question introduces every science topic in a fun and engaging way.

1 Our bodies

1.1 The human body

Some things are the same, some things are different. Humans are not exactly the same as one another either. We have differences that allow us to fit into our world.

Look at the cartoon. Both children have a head. What other things do you see that are the same?

Practising my science language

Try to key sentences using some of the science words from this topic:

light dark hot cold dry damp

For example: "Plants like to live in light places."

Write your sentences in here:

In a sunny place it is _____

In a dark place it is _____

By a river it is _____

Practising my science language

This feature provides language practice of key words to improve scientific vocabulary and to make it easier to learn science in English.

Check my science

Each topic allows learners to check their understanding through this activity.

Check your science!

Using your senses

You can use different senses to recognise an object, such as the guitar in the picture. You can tell it is a guitar and not a different object. You can see its shape. You can hear the sound it makes. You can feel its shape. What senses do **you** help you to tell that it is a guitar?



From school to home

Ask an adult at home to help you -

- 1 Talk to someone at home about what you know of the topic.
- 2 Now ask someone at home to help you complete the following questions:
 - a. What did you like about this topic?
 - b. Which was hard to understand about this topic?

From school to home

You can work together at home to complete this section at the end of each topic. The Journal can then be taken into school for the teacher to look at and discuss, and acts as a record of the learners' progress.

I understand.



I understand a bit.

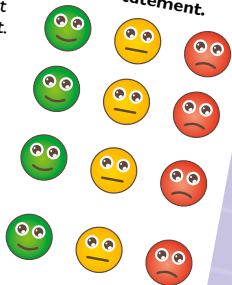


I need more time to understand this.

3

Look again at the checklist below. How are you doing now? Circle one face for each statement.

- I can name things that give off their own light.
- I know some objects only pass on light from elsewhere.



I can describe what "dark" means.

I can describe the difference between light, dim light and darkness.

Ask an adult at home to read and sign this.

We have shared some understanding at home.

Signed: _____

Date: _____

Teacher comment: _____

Date: _____



1 Ourselves

1.1 The human body

Some things the same, some things different

Humans are not exactly the same as one another. We have differences that allow us to tell one another apart.

Look at the cartoon.

Both children have a head.

What other things can you see that are the same?

One child is taller than the other.

What other things can you see that are different?



1

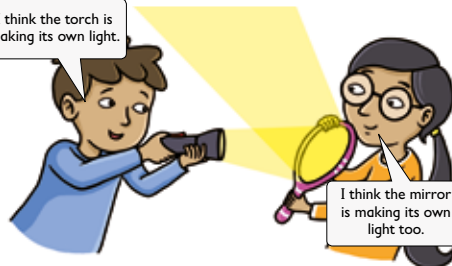
Journal Book 1

1 Light and dark

1.1 Where light comes from

Some objects give off their own light. The Sun gives off its own light. Other objects only pass on light from elsewhere. They do not give off their own light.

I think the torch is making its own light.



I think the mirror is making its own light too.

Do you think Omar and Atiya are both right?

Choose one of the options in each sentence. Then give a reason for your answer.

I think Omar is right / is not right because _____

I think Atiya is right / is not right because _____

1

Journal Book 2

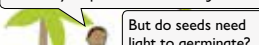
4 Investigating plant growth

4.1 Investigating germination

In Topic 4.1, you should be able to investigate the conditions that are needed for seeds to germinate.

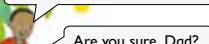
This will include predicting, planning, carrying out and evaluating your own investigation.

The seeds inside this packet are in the dark, so they cannot germinate before I'm ready to plant them in the garden.



Picture 1

I'll leave the packet out in the garden until I get time to plant them. I know the packet is made of paper, but it won't matter if the seeds get wet.



Picture 2

1. Look at picture 1. What do you think of Malik's dad's idea about seeds in the dark? Explain your answer.

2. Look at picture 2. What do you think of Malik's dad's idea about seeds and water? Explain your answer.

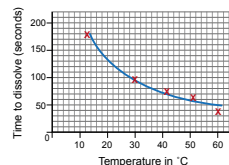
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Journal Book 5

Practising my science language

1. A group investigated how the temperature of water affected the time it took sugar to dissolve.

Look at this line graph of their results:



a. Use the graph to answer this question. How long did the sugar take to dissolve at 30 °C? _____ seconds

b. If the temperature is low, what happens to the time it takes the sugar to dissolve? Finish the sentence.

When the temperature is low, _____

c. If the temperature is high, what happens to the time it takes the sugar to dissolve? Finish the sentence.

When the temperature is high, _____

d. How does the time it takes sugar to dissolve depend on the temperature? Complete the pattern.

The higher the temperature, _____

e. The whole class were doing the same investigation. The teacher noticed that another group tested sugar grains at three different temperatures and a sugar cube at another two different temperatures. What did this group do wrong? Complete the sentence.

The group should have _____

50

2 Reversible and irreversible changes

Journal Book 6



Introducing the *Max Science* primary Workbook

The *Max Science primary Workbooks* accompany the **Student Book** for class and home use. All the numbered activities and extension activities found in the Student Book are expanded with clear answer spaces and support. Instructions carefully show if activities are to be done independently, in pairs or in groups.

Practising my science language

Supported activities focus on improving scientific literacy to make the learning of science through the medium of English more accessible.

Extending understanding

Extension questions encourage learners to go a bit further to improve the depth of understanding.

1.2 Parts of the human body

Practising my science language

1 The body song

Name of body part	Number of times it is named
head	

How many body parts are named in the body song?

2 Draw and label the body


Work in a group. One person lies down on a large sheet of paper. Draw around the person. Now copy the outline you drew here. Label three body parts. Use these words.

head hand leg

1.2 Parts of the human body

Extension

Look at the picture. Why is the toy a non-living thing?
I think it is a non-living thing because it



Checklist

Read each sentence and circle a face for it. Like this:

- I can say if something is alive.
- I know the differences between living and non-living things.
- I can name some living and non-living things.

I understand.
 I understand a bit.
 I need more help to understand this.

1.2 Parts of the human body

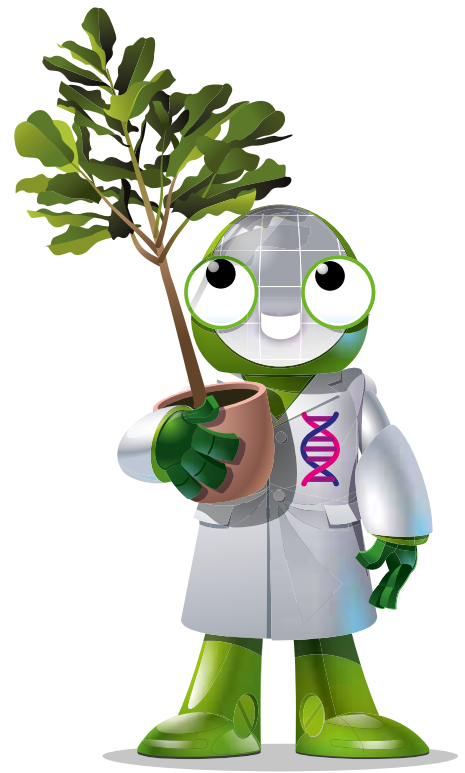
Exploring science further

Numbered activities from the Student Book are expanded with example answers for guidance. Learners can record their scientific progress, insights and results.

Assessing progress

End of topic checklists provide opportunities for recording what learners have learnt so far.

iv



Other types of skeleton

Animals do not have a bony skeleton inside their body. They are called invertebrates. Some invertebrates have a hard covering on the outside of their body called an exoskeleton. Other invertebrates do not have a skeleton.

Where are the muscles, joints and skeleton on this animal?



It is not like us. It does not have a skeleton.

Is Azumi correct? Why do you say so?

16 1 Skeleton and muscles



Workbooks

Workbooks 1 – 6

Workbooks are designed for extended practice and consolidation in class or at home, where the learners are able to express and record the development of their scientific thinking through carefully thought out games, quizzes, questions and activities. The workbook pages are clearly cross-referenced with the corresponding stage in the student books.

Glossary

Fill in the meaning of these words in your own language.

dark	shadow
_____	_____
_____	_____
light	Sun
_____	_____
_____	_____
shade	torch
_____	_____
_____	_____

11

Workbook 2

Practising my science language

Cup 3 tastes _____
Cup 3 smells _____
What do you think is in cup 3?
I think it is _____

What is in the bags?
Your teacher will give you three bags with objects inside them.

- Get into groups. Take it in turns to feel the objects in the bag.
- Choose two words from the word box to describe each one.

hard soft smooth rough grainy
round square heavy light squishy bendy

The objects in bag 1 feel _____
The objects in bag 2 feel _____
The objects in bag 3 feel _____

- What do you think is inside each one? Look at the words in the box.

marbles dry beans sand wooden blocks feathers
rubber bands string cotton wool foam

I think bag 1 holds _____
I think bag 2 holds _____
I think bag 3 holds _____

2 1.1 Living things can sense their surroundings

Workbook 2

3.4 Pollination and fertilisation

1 Why do plants make pollen?
Work in a small group. Write a summary of your ideas about why insects regularly visit flowers.
Insects visit flowers because _____

Extension

a. Make some notes about hay fever. What is the role of pollen in causing hay fever?
b. Use your notes to produce a booklet about hay fever for people to read in a doctor's waiting room. Make sure you mention the role of pollen.

Practising my science language

2 Acting out pollination
Work in a group of five or six. On a separate piece of paper, plan a presentation of what happens in the process of pollination. You can either:

- act out pollination as it actually happens in nature
- or make up your own story to model pollination using the ideas of advertising, rewards and the movement of things from one place to another. You can create images as part of the story.

58 3.4 Pollination and fertilisation

Workbook 5

Practising my science language

2 Helping people to understand science

A factory owner and a fisherman live 80 km apart. The fisherman is angry because he has just found out what acid rain is doing to the fish. The factory owner cannot see what the fuss is about.

You know that you can explain what is happening. What will you say to these two people? Can you help both of them?

I will tell them _____

Extension

The gases and smoke from factories can be cleaned and some of the dangerous chemicals removed. This involves a filtration unit placed inside the factory, but it is expensive. Who do you think should pay for it?

I think _____ should pay for it because _____

70 5.1 Spaceship Earth – the atmosphere

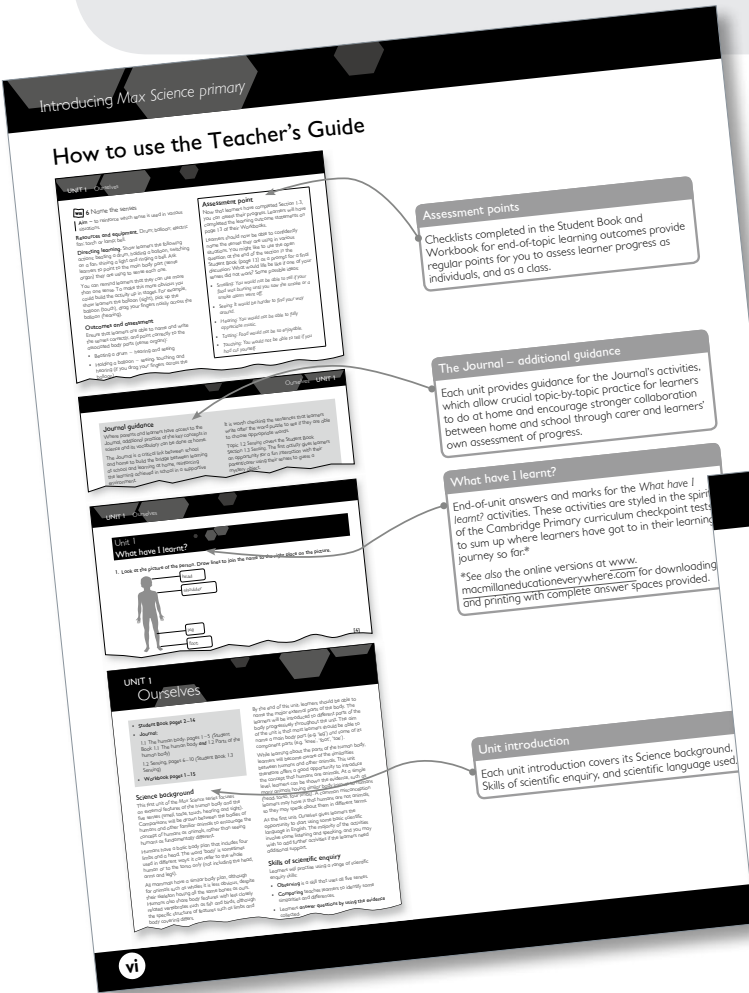
Workbook 6



Teacher's Guide

Teacher's Guide 1 – 6

The Teacher's Guide comes with full support to help teachers plan and deliver active, engaging and productive lessons giving guidance on assessment and differentiation. Each topic includes a section on potential scientific language challenges students may face. Full answers to all activities are also provided.



Teacher's Presentation Kit 1 – 6

The Teacher's Presentation Kit offers a suite of easy-to-use, materials for interactive whiteboards or projectors. It includes a digital version of the Student Book enhanced with scientific language activities for front of class teaching as well as a packed resource centre full of activity sheets that can be downloaded and printed for whole class engagement. These help focus on the development of scientific skills, word cards and audio glossary for scientific vocabulary learning and teacher's notes and full answers are included for all activities.

Assessment points
Checklists completed in the Student Book and Workbook for end-of-topic learning outcomes provide regular points for you to assess learner progress as individuals, and as a class.

The Journal – additional guidance
Each unit provides guidance for the Journal's activities, which allow crucial topic-by-topic practice for learners which also encourage stronger collaboration to do at home and school through carer and learners' own assessment of progress.

What have I learn?
End-of-unit answers and marks for the 'What have I learn?' activities. These activities are styled in the spirit of the Cambridge Primary curriculum checkpoint test to sum up where learners have got to in their learning journey so far.
*See also the online versions at www.macmillaneducationeverywhere.com for downloading and printing with complete answer spaces provided.

Unit introduction
Each unit introduction covers its Science background, Skills of scientific enquiry, and scientific language used.

The pedagogy of Max Science primary

and the results do not always need to be recorded. The effect is to build an ongoing conversation about learning between the teacher and learner, and between the learners themselves.

In *Max Science primary*, the Cambridge objectives for learning are clearly displayed in the Student Book at the start of each unit, and section by section. The learning outcomes for those objectives are given as checklists for the learner to complete in their Workbook after they have done the activities. These checklists provide a record of learner achievement for every learning outcome, topic by topic. Teachers and learners can work together to make sure learning outcomes have been completed. The Workbook's structured activities can also easily be used to record and assess progress.

Teaching and learning in the classroom

All sections in the Student Book involve learners in a number of activities that give a shape and structure to each unit's learning outcomes. However, learning key scientific concepts is not limited by the start and end of one activity or lesson but develops over time. Six activities, for example, do not result in six learning outcomes. We see the learning as a journey that extends across the activities and can take one or more lessons.

You might wish to adapt our materials and create some engaging tasks of your own. To encourage this, we have designed a light structure into our learning journeys, section by section, that will help you plan, assess and adapt as teaching and learning progresses.

We can think of the science learning journey as having three phases: Orientation, Exploration and Accommodation. Each phase overlaps with the next.

Orientation. The arrival of learners into a classroom is a lively, busy and exciting time. Everything that happened during break time and in previous lessons will be on your learner's minds. One of the first tasks of a teacher is to help learners settle and focus. Being prepared for this phase is important. In *Max Science primary* each section offers an opening task during this orientation phase designed to stimulate and learner thinking. The purpose is to establish the focus for the lesson and to help learners consider what they already know.

Science as enquiry

To learn how science works is to experience the joys of finding out, and the sense of wonder in the process of science enquiry. We want learners to develop their critical thinking skills and the practical skills of an enquiring scientist. To know how to measure, record, plan investigative tests, and make sense of data are all skills that are needed in all scientific work. Not every learner will eventually become a scientist but every learner should have experience of the enquiry process. Experiencing the challenges of practical, hands-on science will help learners appreciate the work of real scientists. Investigating the effect of temperature on dissolving sugar is not new science to a scientist but it is new to a young learner, and the experiment becomes their very own science research exploration. By doing hands-on, enquiry-based activities, learners can be scientists for a day.

The skills of science enquiry need to be introduced at an early stage, then practised and developed. Using simple measuring instruments and recording values will lead on to gathering data and interpreting patterns. These skills can then be used as part of a planned experiment revealing particular results. Eventually learners will be confident in planning and carrying out their own investigations, controlling variables and evaluating data. We have suggested enquiry and skills tasks suitable to the age and stage of learners throughout *Max Science primary*. Science enquiry doesn't need expensive resources; the activities in this course use simple everyday materials to explore most concepts.

Assessment

How can we tell if a lesson has been successful? How can we tell if learners have progressed and if they have understood the key learning outcomes?

Teachers who listen to learners, and adapt their teaching according to what they hear and see happening in the lesson are using formative assessment. Learners should also be encouraged to share their thinking, ask their own questions and think about their own learning. This allows both the teacher and learner to use formative assessment to respond to the process of learning and improve the progress of learners as the learning is happening. Formative assessment can happen at any time during a lesson. It is often informal



PRIMARY • YEARS 1 – 6

The *Max Science Enquiry Box* series is a flexible resource that supports the development of scientific skills and follows the Cambridge Primary Science curriculum framework.

Over 6 stages, each Enquiry Box contains a range of activity cards to facilitate enquiry-based learning across the subjects of Chemistry, Biology and Physics.

Activities throughout the series support a student-centred, hands-on approach, and guide learners through the stages of collecting ideas, planning work, presenting evidence and drawing conclusions. The *Max Science Enquiry Box* series helps students develop their understanding of concepts through practical application, while teachers are supported in delivering a modern and relevant science class.

A 'Scientific Enquiry' strand is also included to support teachers and students who need to focus on the development of enquiry-based learning skills, and raise confidence with the approach.

The *Max Science Enquiry Box* series features:

- four strands to support the Cambridge international primary curriculum: Biology, Chemistry, Physics and 'Scientific Enquiry'
- support for teachers who are focusing on the development of enquiry-based learning skills with their students
- embedded language support for learners and teachers whose first language may not be English
- over 100 free, downloadable online resources for each stage which includes Worksheets, Teacher's Notes and Answer Keys (with language support) and Answer Keys
- step-by-step guidance for teachers on how to approach and scaffold lessons appropriately to encourage students to work both independently and collaboratively on key tasks.



Endorsed by Cambridge Assessment International Education for classroom support.



Sample material from *Max Science Enquiry Box 1*

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- 120 laminated student cards (A4 size):
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- A comprehensive, full-service Teacher Resource Book with digital resources



The challenge
Gives the challenge parameters and general guidance, including questions to consider. Also outlines the key scientific learning linked to the topic.

Key vocabulary
Lists key terms that are important for understanding the concepts explored in the investigation. Definitions and ideas for developing investigation-related vocabulary are provided in the Teacher Resource Book.

Key concepts
Identifies the key concepts associated with the challenge.

Key actions
Gives an overview of the main actions students will be expected to perform. Actions may also form part of student assessment.

Design thinking stages
Gives an overview of the main activities associated with each stage of the design thinking process.

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