

**NATURAL
SCIENCE**

LEARN TOGETHER

TEACHER'S BOOK

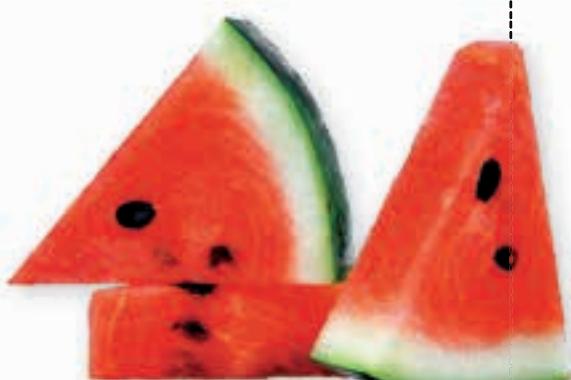
PRIMARY 3

BY
ME

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**TABLE
OF CONTENTS**

Introduction	3
Course components	4
How to use the Pupil's Book	8
How to use the Teacher's Book	14
360° evaluation	16
Cooperative Learning	18
Project Based Learning	20
Helpful tips	22
Welcome letter	25



HOW TO USE THE TEACHER'S BOOK

The Teacher's Book is specially designed to help Science teachers and provide English language support. It includes easy-to-follow lesson plans and practical support through each activity, highlighting teaching suggestions and tips.

CONTENT MAPS

Each unit begins with a content map, fully compatible with the LOMCE curriculum, to help the teacher see at a glance the contents, evaluation criteria, learning standards and key competences ahead.

UNIT STRUCTURE

It provides a quick overview of the different sections within the unit.

CONTENTS, EVALUATION CRITERIA, LEARNING STANDARDS AND KEY COMPETENCES

All key elements of the LOMCE curriculum are clearly mapped out for each unit.

UNIT SUMMARY

It provides an overview of what the pupils will learn in the unit.

LANGUAGE FOCUS & KEY STRUCTURES

It presents a summary of the key language and structures covered in the unit.

DIGITAL RESOURCES

An index of the materials and activities available for each unit through the Digital Resources.

TRACK LIST

An index of the audio tracks of the Teacher's CDs.

LESSON PLANS

LESSON INFORMATION AT A GLANCE

Lesson summary, language focus and materials to help prepare lessons ahead of time.

6 OPENING PAGES

SUMMARY

The aim of the unit opener is to develop pupils' observational skills and find out what they already know about the human body and the five senses. Elicit action verbs that describe what's going on in the scene and adjectives to describe the various characters and objects.

LANGUAGE

- Question words: who, how many, etc.
- Prepositions of place: in, on, under, next to
- There is / are ...
- Should
- Vocabulary: interact, organs, senses, heart, lungs, skeleton, joints, bones, sweet, soft, hard, smooth

MATERIALS

Digital flashcards

1.02 - 1.03 Five senses song

1 INTERACTION

Activity 1

LET'S BEGIN

1.02 - 1.03 Five senses song

7

1.02 - 1.03 FIVE SENSES

Five senses, five senses,
All together, the world is clear. [x2]

I can smell a pretty rose,
Smell, smell with my nose.
I can hear people talk,
Hear, hear with my ear.
I can touch things with my hands,
Feel, feel on my skin.
A tasty lollipop,
Taste, taste with my tongue.
I can see lots of colours and shapes,
See, see with my eye.
Five senses, five senses,
All together, the world is clear. [x2]

360° EVALUATION

Download, print and distribute the Diagnostic test and Self-evaluation test for the pupils to complete.

Activity 7

Play the song again and ask the class to sing along while they point to the parts of their body.

TARGETED QUESTIONS

What can you see in the classroom? Let all the pupils participate. You can extend the question by asking them to look for objects with different characteristics.

You can bring some objects to the class and let the pupils identify them. How do they feel?

How do deaf people communicate? Pupils can make up some gestures of their own for the rest to guess.

How many foods and tastes can you think off? Make a list on the board and let the pupils vote for their favourite food.

WRAP IT UP

Play 'Stand up, sit down' using the song to review the vocabulary of the sense organs. Explain to the pupils that they have to stand up and sit down quickly every time one of the sense organs is mentioned.

SOLUTIONS

- Eye, ears, nose, tongue, skin
- Wear sunglasses, gloves, etc.
- The brain
- Pupils' own answers
- Sweet (apple); soft (chair stretcher ...); hard (table, door, skeleton, shelf ...); smooth (glasses, sink ...)
- Nose, ear, skin, tongue, eye

GETTING STARTED AND WRAPPING ACTIVITIES

Each lesson begins and ends with activities that aim to preview and review important vocabulary and concepts.

STEP-BY-STEP LESSON PLANS

Teacher tips on presenting textual and graphic content, and instructions for guiding pupils through the activities.

TARGETED QUESTIONS

Questions which vary in level of difficulty to get pupils thinking more critically.

360° EVALUATION

Helps teachers personalise their teaching and target their pupils' needs through a series of evaluation tests: teacher, peer and self-evaluations.

360° EVALUATION

ByME Natural Science 3 Learn Together helps teachers personalise their teaching and target their pupils' real needs.

The material is supported by a 360° evaluation carried out by the teacher, the pupil and his or her peers. All tests and evaluations are tagged with the icon .

The 360° evaluation has three main stages within a unit:

- 1 Diagnostic stage: includes the teacher diagnostic test and the pupil's self-evaluation. Pupils are asked to take these tests at the unit opening page. These two tests help teachers plan the unit lessons according to their pupil's knowledge.
- 2 Work with peers stage: represented by the Cooperative Learning evaluation.
- 3 Assessment stage: made up by the end-unit evaluation and the evaluation grid.



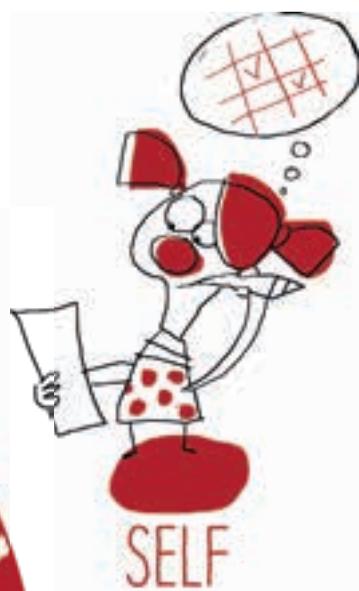
TEACHER EVALUATION

The evaluation tests carried out by the teacher include:

- **Diagnostic test:** teachers determine what pupils already know about the unit.
- **End-of-unit test:** pupils carry out a final unit test to check what they have learnt.
- **Unit evaluation grid:** teachers evaluate if the pupils have accomplished the evaluation criteria of the unit.
- **End-of-term test:** pupils take an end-of-term test which serves as an additional evaluation tool for the teacher.

The 360° evaluation wraps up with two term evaluations, the end-of-term test (teacher) and the project evaluation (peer).

All the marks can then be recorded in the unit or term log book made available to the teacher in the digital resources.



SELF

- **Pupil's self-evaluation:** pupils test their prior knowledge of the unit through a self-assessment grid.



PEER

- **Cooperative Learning evaluation:** pupils complete a self-evaluation grid of the cooperative tasks, evaluating its development, their own performance, as well as the performance of their teammates.
- **Project evaluation:** pupils evaluate the development of the project, their own performance, as well as the performance of their teammates, again from a Cooperative Learning perspective.

COOPERATIVE LEARNING

Cooperative Learning is an educational situation in which pupils are required to work together in small groups or teams to support each other in pupils to improve their own learning and that of others. Cooperative Learning goes beyond merely seating pupils together; simply telling them they are a group does not mean they will cooperate effectively.

Basic principles of Cooperative Learning

(Johnson, Johnson & Holubec)

1. Positive interdependence

Pupils recognise that with the help of their peers, they can better complete the group's task. Every group member must contribute, and members will depend on each other to complete the task. We can enhance positive interdependence by establishing mutual goals which "will help each pupil to learn and make sure all other team members learn" (Johnson, Johnson & Holubec, 2008).

2. Individual accountability

Each member of the group is responsible for completing their part of the work and must develop a sense of personal responsibility towards him or herself and the rest of the group, because individual performance will affect not only one's own result, but also the results of their team members.

3. Promotive interaction

Cooperative Learning implies face-to-face interaction. Pupils need not only to discuss and agree but also to produce a piece of work through combined effort, because Cooperative Learning is not about working individually to make a 'cut-and-paste' final product.



4. Social abilities

Pupils need interpersonal skills to be successful. Some of them are:

- effective leadership
- decision-making
- communication
- conflict resolution
- helping and asking for help
- organisation
- self-esteem
- self-confidence.

Pupils are not born knowing how to behave in a group. We have to teach them, giving them models, and opportunities to practise these skills.

5. Group processing

Developing Cooperative Learning methodology is not easy at first, nor are the effects immediate. Difficulties within the groups, resources and management may arise. That is why formative assessment is needed. This assessment involves both teachers and pupils. We need to know the strong and weak points in order to make the right decisions and develop the methodology in the right direction.

Cooperative Learning structures in NATURAL SCIENCE 3 Learn Together

The *Work together* section of the *ByME Natural Science 3 Learn Together* is designed to develop pupils' Cooperative Learning skills through the use of two different types of techniques, Cooperative investigation and Teammates consult.

These techniques are presented to the pupils in the opening unit with a brief explanation. Here's all you need to know about them!

Cooperative investigation

Already in groups of four, pupils are presented with a problem or question before carrying out an experiment.

The individual members of the group think about the problem or question and create a hypothesis before carrying out the experiment, share it with the rest of the team and decide on a hypothesis.

Next, they do the experiment and write down their conclusions.

Finally, the group compares the original hypothesis with the conclusions developed after the experiment.

Work together

Measure the fat in the food you eat

Think first

Different foods contain different levels of fat. You are going to find out which foods have a higher or lower fat content. Think about the following questions individually. Then discuss them as a group. Take notes about your group's answers.

- Do all foods contain fat?
- Which food contains the most fat?
- Which food contains the least fat?

Materials: brown paper, ruler, felt-tip pen, different types of food, for example: butter, crisps, muffin, yoghurt, chocolate, cheese.

Steps

- In groups, choose six different foods to test. Which do you think will have the most fat?
- Take a big piece of brown paper. Draw six squares for the samples and write the name of the food you are going to test.
- Rub the food onto its square on the piece of paper.
- Leave the paper to dry for at least two hours.
- When the time is up, check which squares are the greasiest. Number them from the greasiest to the least greasy.
- Write your conclusions.

Reflect

Revise your answers to the **Think first** questions. Has the experiment changed your ideas about the level of fat in food? Which of your chosen foods has the most fat? Which has the least fat? Which foods do you think are healthier?

Evaluate your cooperative learning

25

Teammates consult

In groups of four, each member of the team will get a question to answer.

Pupils put their pencils in the middle of the desks and start discussing the questions.

They take turns reading the questions to the rest of the group, expressing their opinions or doubts and decide on an answer as a group.

Each pupil takes back their pencil and writes down the answer.

They repeat the process with the rest of the questions.

Work together

Classification key

You are going to analyse a classification key to identify different animals. Get into groups and follow the steps.

Materials: paper, pen

Steps

- Each group member chooses a different animal from the photos. There is one extra animal.
- As a group:
 - look at the animal carefully.
 - read the first question to your group. Agree on the next step to take.
 - follow the answers until your group has decided on the name of your animal.
 - repeat the process for each member of the group.

1. Does it have six legs?	Yes	Go to question 2.
	No	Go to question 3.
2. Does it have hard wing cases?	Yes	It's a beetle.
	No	It's a fly.
3. Does it have eight legs?	Yes	It's a spider.
	No	Go to question 4.
4. Does it have more than 20 legs?	Yes	It's a centipede.
	No	It's a woodlouse.

3 In your group, identify the name of the extra animal.

Evaluate your cooperative learning

45

PROJECT BASED LEARNING

The Buck Institute for Education (BIE) defines Project Based Learning (PBL) as “an extended process of enquiry” where “students work on a project over an extended period of time that engages them in solving a real-world problem or answering a complex question. As a result, students develop deep content knowledge as well as critical thinking, creativity and communication skills in the context of doing an authentic, meaningful project.”

ByME NATURAL SCIENCE Learn Together projects are clearly organised to help pupils make a successful start in Project Based Learning. Each project relates to what the pupils have learnt in the preceding units and the theme running through all the projects is to make the world a better place.

CHALLENGE

Every project begins with a challenging problem or driving question. The problem or question sparks the pupils' interest and motivates them to want to find the solution. In some cases pupils are asked to choose from a range of possible options to carry out the project, such as choosing a song that will be used to create a dance routine or a dish to create a healthy menu.

WHAT DO YOU KNOW?

These activities are meant to revise and activate the contents pupils have studied in the preceding units and that are related to the project. It is therefore a first chance to begin the enquiry process that will lead them to a satisfactory solution of the problem.

TEAM ORGANISATION

Cooperative work and each participant's role are key to their achieving the project. Before proceeding with the rest of the enquiry, pupils decide how they are going to organise themselves as a team. PBL applies Cooperative Learning techniques, therefore the team organisation is based on roles. The proposed roles are coordinator, secretary, materials manager and spokesperson, but you may decide to introduce other roles.

PROJECT

The anniversary dish

A local restaurant in your neighbourhood wants to create a new, healthy dish to celebrate their 10th anniversary. They would like the dish to be really special so they can present it on the day of their party. They want you to help them create it. Are you ready? Let's start!



- 1 Your first decision will be to choose a dish. Select one from these ideas.

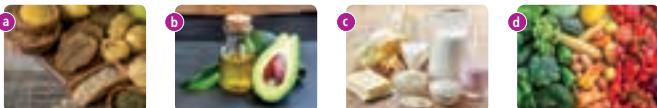
spaghetti and tomato sauce	salmon and potatoes	chicken and rice
carrot cake	pancakes and fruit	

Before you start, it is important to find out what you already know about healthy eating.

- 2 Answer the following questions in your notebook.

- a Which organ do you use to smell food?
- b Which organ do you use to taste food?
- c What different tastes are there?
- d What is a balanced diet?
- e Which organs take part in the process of digestion?
- f Why is a balanced diet important?
- g What health problems can you get if you do not follow a balanced diet?

- 3 Look at the photos. Identify the different food groups.



Have you got a team? What are you waiting for?! Get together in groups of four.

- 4 Decide on the roles in your group.

coordinator	secretary	spokesperson	materials manager
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PROJECT ORGANISATION

At this stage, pupils decide on the format of their project. They are given different options to choose from along with the materials required, however they are also free to choose their own format if they wish.

- 5 Choose how you want to present your healthy dish with your group. Think of what you will need. Here are some ideas.

materials	video file	presentation	audio file	cooking demonstration
<ul style="list-style-type: none"> • tablet • actors • fancy clothes 	<ul style="list-style-type: none"> • computer • digital images • video clips 	<ul style="list-style-type: none"> • voice actors • sound effects • tablet 	<ul style="list-style-type: none"> • cooking and eating utensils • ingredients 	

You can use many different sources to research your project: Units 1 and 2 from this book, cookbooks, magazines, food blogs, TV documentaries, or by asking your teacher or parents.

- 6 Look at these questions individually. Do research and write down the answers in your notebook.

- a What other ingredients could you add to the dish to make it special?
- b How could you present the dish?
- c What are you going to call it?
- d How would you describe it?
- e What nutritional information could you include in the description?
- f How healthy is the dish?

- 7 Share your individual findings with the group and decide on what information to use in your presentation. Is there any other information you need? Remember to make a checklist of the things you need to include in your project.

Your team will now show its most creative side!

- 8 Now it is time to create the presentation of your dish. Remember that each member of the team has to take part.

- 9 Present your dish to the class.

Evaluate your project.

Useful language

I think / don't think that ...
I agree / don't agree.
That's a good idea.
What about doing / showing ...?
Why don't we ...?

RESEARCH

Once pupils have decided how they are going to present their project, they undertake research to answer to a set of questions that will help them complete their project. In doing so, they will need to use various sources such as the Pupil's Book itself, the internet, books in the school library, magazines, visiting museums, or by asking the teacher or their parents.

CREATE

At this stage the team members will create their project or product. They have all the necessary information, they have discussed all their findings and they have agreed what they want it to be like, so there is no time to waste!

PROJECT EVALUATION

The pupils evaluate the development of the project, their own performance, as well as the performance of their teammates from a Cooperative Learning perspective.

PRESENT YOUR PROJECT

Pupils share their findings by presenting their project to the rest of the class, or if you choose, to the rest of the school. Remind the pupils that they should be ready to answer any questions at the end of their presentations!

HELPFUL TIPS

The following tips are arranged as an activity bank and will help you to get the most out of the ByME educational materials, add diversity to your classes, and maintain your pupils engaged and motivated.

PRESENTING KEY CONTENT

ByME NATURAL SCIENCE 3 Learn Together presents content in both textual and visual formats. At this level, pupils continue to develop their literacy skills. To encourage active participation and develop confidence at this level, teachers are recommended to use a variety of reading activities to help pupils develop fluency and confidence while reading. There are a variety of activities that can be done before, during and after reading to help pupils get the most out of the text.

Reading

To encourage active participation and develop fluency and comprehension skills at this level, teachers are recommended to use a variety of read-aloud activities.

Read and repeat: The teacher reads a sentence and the pupils read and repeat the sentence, focusing on proper intonation and pronunciation.

Choral reading: The teacher and all the pupils read the text aloud in unison to encourage word recognition and fluency while building confidence in reading.

Order reading: The teacher instructs pupils of the order in which they will read the text. The first pupil reads one sentence, and then the next pupil reads the following and so forth without interruption.

Cloze reading: The teacher reads the text and pauses at key words to have the pupils read the missing word (or phrase) in unison.

Small group reading: Pupils are divided into small groups to read the text. The groups can be heterogeneous allowing stronger readers to support other group members; or the groups can be homogeneous so that the teacher can work with the group of readers that needs the most support.

Partner reading: Pupils read with a partner. Each pupil takes turns reading and listening.

Silent reading: Pupils are provided with time to read the text silently on their own.

Re-reading: Pupils read texts multiple times to promote better understanding of the main concepts, increase fluency and ensure participation from all pupils.

Response to reading

Reading strategies can be explored before, during and after reading the text to provide pupils with a purpose for reading and aid comprehension:

Making predictions: The teacher asks pupils to look at the illustrations and photos on the page and scan the text for key words. Then the pupils make predictions about what they will be reading about.

Word meanings: Pupils look through the text to find unfamiliar words. These words can be defined by classmates, the teacher or with the use of a dictionary.

Word meanings in context: The teacher encourages pupils to define new words and important vocabulary by using the text in the sentence around it.

Main idea: Pupils look for the sentence(s) that describes the main idea of each paragraph.

Paraphrasing: Pupils use their own words to retell what they have just read.

Summarising: Pupils use key words to describe the main idea of the text.

Organising information: Pupils sort, categorise or classify the information from the text.

Cause and effect: Pupils look for examples of cause and effect in the text. The cause explains why something happened. The effect is the description of what happened.

Compare and contrast: Pupils take two main concepts and discuss how they are different and how they are similar.

Making connections: Pupils focus on new vocabulary or a new concept and make a connection to their personal life and experiences or to previous learning.

Sequence: Pupils discuss or write the sequence of a process or event.

Drawing conclusions: Pupils use the information they already know and the information from the text to draw conclusions.

Asking questions: Pupils use the information from the text to ask new questions that require further investigation.

Writing

Science learning gives writing practice an authentic context. Incorporating the use of science notebooks encourages ownership, builds understanding, and helps pupils organise the content in a personal way. Various ways of collecting, organising and displaying information are suggested in each lesson.

Journal entries: Pupils ask questions, make observations, summarise, make connections, and collect, record and interpret information.

Visual representations: Charts, tables, graphs, diagrams and drawings. A KWL is a graphic that helps pupils access prior knowledge, establish a purpose for reading and summarise what they have learned (K = what I know, W = what I want to learn, L = what I learnt)

Concept maps: Provide pupils with a tool to organise information while brainstorming, classifying, categorising, comparing and summarising new learning.

GAMES AND ACTIVITIES

Pupils learn in many different ways. The more experiences pupils can have around a new topic, the more likely they will learn and remember concepts and vocabulary. Games offer a wide range of opportunities for pupils to engage with and use what they are learning. They are also a chance to offer movement, a change of focus, and disguise language learning. The competitive element inspires pupils to participate and, what could easily be an uninspiring list of revision questions or words to define, can be transformed into a fun game.

I-Spy: Use the classroom, the playground, a poster or the opening illustration for a unit to say *I spy with little eye something beginning with (/k/)*. Pupils suggest words beginning with that letter to guess your word.

Pictionary: Divide the class into two teams. Start to draw an item on the board very slowly. In turns, teams have 30 seconds to guess what you are drawing. You

will need a timer! Once pupils are familiar with the game, they can play in threes. One pupil begins to draw an item from the unit or the Picture dictionary. The other two pupils in the group must guess what it is. The first to guess, becomes the drawer.

Picture snap: Pupils draw one item from the unit e.g. something they have for breakfast, their favourite animal, a machine in their kitchen. Pupils must keep their picture a secret and must not show others. Provide pupils with the sentence starter you would like them to use e.g. *For breakfast I have ...; My favourite animal is ...; In my kitchen there's a ...* Pupils must walk around the classroom repeating their sentence to as many classmates as possible. If they hear somebody say the same item as them, they must shout *Snap!* and show each other their picture. Check at the end how many pupils had the same item as somebody else.

Stand up if...: Pupils listen to the statements you make. If they think your statement is true, they stand up. If they think it is false, they remain seated. Between statements, pupils sit down. The game can also be played with flashcards. Hold up a flashcard and make a true or false statement about what is on the flashcard. Pupils stand up if it is true.

Repeat if true: Pupils listen to your statements. If they think your statement is true, they repeat it. If they think it is false, they shake their heads and remain silent.

Chinese whispers: Have pupils stand one behind the other, in three lines of equal numbers. Whisper a sentence to the pupil at the end of each line at the same time. They must whisper the sentence to the next person in their line, who whispers it to the next until it is passed down all the way to the first person in the line. The pupil at the front of the line puts up their hand when they think they know the sentence or runs and circles a flashcard or wordcard on the board.

Backs to the board: Divide the class in half, into two teams. Place two chairs at the front of the class, each chair facing a team. Ask one pupil from each team to come and sit in the chair, facing their team but with their backs to the board. Write a word or put up a flashcard on the board behind the pupil's backs and insist that they do not turn round. (Ensure the class understand the word you have written). Encourage the teams to mime the word on the board to their team



member who must guess what it is. The team member who guesses first gains a point for their team. Two new team members then come to the chairs.

Noughts and crosses: Draw a noughts and crosses grid on the board and write numbers in each square. Divide the class into two teams and choose one team to be *noughts* and one team to be *crosses*. For each number prepare a question or true false statement. Each team takes turns to choose a number. If they answer your question correctly, a team member can come up to the board and replace the number with a nought or a cross. The winning team is the first to get three noughts (or crosses) in a line.

Bingo: Pupils fold an A5 piece of paper in half, in half again, and in half one more time. When they open the paper up, they should have a grid with eight squares. Pupils draw (or write) eight items from your lesson (food, animals, machines, etc.). Draw a grid with eight squares on the board. Draw items one at a time in your grid. If pupils have that same item in their grid, they can cross it out. When a pupil has crossed all the items out in their grid that are the same as yours, they can shout *Bingo!* Use the other side of the paper to start a new game.

Listen and do: Pupils listen carefully to two instructions at the same time e.g. *Wiggle your hips. Make an angry face; Touch something made of wood with your elbow. Scratch your head.* When pupils get good at remembering and following two instructions at a time, increase it to three.

Run to the corners: This is best played in the playground or gym. Label the corners of the space you are in with different categories. Organise pupils into groups. Give names to the different groups (animals, professions, landforms, etc.). Call out the group name and a vocabulary item. The group must run to the correct corner.

Hangman (man on a raft): Instead of a hanging man, draw a man standing on a raft (ten circles under

him on a rough river or sea). Draw a crocodile or shark in a corner of the board. Draw spaces for the letters of a word you want pupils to guess. If pupils guess a letter in the word correctly, write it in the correct space. If the letter does not appear in the word, write it under the crocodile or shark, and rub out a circle of the raft. Pupils must guess the word before the raft is totally rubbed away (and the man is eaten by the shark or crocodile!).

Quiz makers: At the end of a unit ask the pupils to work with a partner or divide the class into groups and invite them to make questions for a quiz about the topic. Tell them that they can use the Pupil's Book to help them. Remind them that they must also supply the answers to their questions. Take in their papers and use the questions to give the class a quiz. Read the questions to the class and ask them to write their answers on a paper. Paraphrase the questions so the pupils can answer in a few words. They then exchange papers and the quiz is corrected collectively.

Vocabulary storms: As an introductory activity to a new topic, divide the class into groups and ask them to write down as many words as they can that are related to the topic that is going to be studied. At the end of the group activity, invite pupils to share their work with the rest of the class. Encourage the pupils to come to the board and use mind maps to organise the words from their lists.

Scrabble: Have sets of plastic alphabet letters, scrabble letters, and / or letter sets cut up on card. Divide the class into small groups. Give each group a set of letters. The groups spell the word you tell them.

Ready, Steady, Spell: Mini-white boards are a great learning aid! Say a word and have pupils spell it on their mini-white board and hold it up to show you. The boards also provide an easy opportunity for pupils to practise spelling a word before writing it in their books.

WELCOME LETTER**LETTER HOME**

Dear Parent / Carer,

This year, your child will be learning about Natural Science in English, developing an understanding of many different aspects of the natural world, all while being introduced to new vocabulary and reinforcing grammatical structures. This is the third level in a six-level course designed for pupils at the primary level.

Learning about science is very beneficial for children because it complements a child's natural curiosity and answers a lot of their questions they have about the natural world. The acquisition of science learning is practical and relevant, which children embrace without even thinking about it. This course aims to provide your child with the opportunities to learn and discuss the curiosities they may have about the natural world, while strengthening and building upon their English vocabulary and grammar.

In Level 3, your child will learn about their own body, how and why it functions the way it does, as well as explore all other types of living things and their characteristics, such as plants and animals. After discovering these new things, your child will look even deeper into the natural world and learn about matter and how matter makes up different materials with different properties. From there, your child will learn about the types of energy produced or used in different situations and which are utilised in simple and complex machines. They will be taught about the significance of machines invented in the past and how those machines have evolved over the years, influencing the society we live in today.

The opportunities to use new language will be present throughout this course, which integrates new structures and vocabulary in every unit. Your child will also be able to put this new language into use during hands-on learning situations when they carry out group experiments or projects at the beginning of each unit. Learning science and doing these group activities involves a lot of talking and listening to each other, as well as develops patience and problem solving, too.

You and your child will both find value in the life skills learnt from this course, which your child will be able to apply to real life situations throughout their life.

Perseverance, problem solving, independent thinking and researching along with the reinforcement of English communication skills are only to name a few.

Thank you in advance for your support and collaboration. Here's to a great year of growth and learning!

Best wishes,

Science teacher

Notes

MEET CARLA AND ALEX

4 MEET CARLA AND ALEX

SUMMARY

The aim of these opening pages is to introduce the pupils to the course characters, Carla and Alex, who will introduce each unit and the main topics covered in the book. There are a few different pair work activities to encourage pupils to work with their classmates. This is a good opportunity to mix the class up and get pupils working with different people, or to help the class to get to know any new classmates.

LANGUAGE

- He / She has got ...
- Brown / blonde / straight / curly hair
- Clothes: shorts, t-shirt, white / laboratory coat
- What's your name? / My name is ...
- I like learning about ... / I'm interested in ...
- My favourite topic is ... / My favourite topics are ...
- I love studying ... / I want to be a ...
- What do you know about ...?

GETTING STARTED

Organise a mingle activity to discover some of the interests your pupils have. Write on the board, for example: *What is your favourite science topic? What do you enjoy doing most in class? What do you want to be when you grow up?* Ask the pupils to copy the three questions onto a piece of paper. Tell them to get up with their paper and ask their questions to three pupils in class. Ask them to make a note of who they interview. At the end elicit answers from the class.

STEP BY STEP

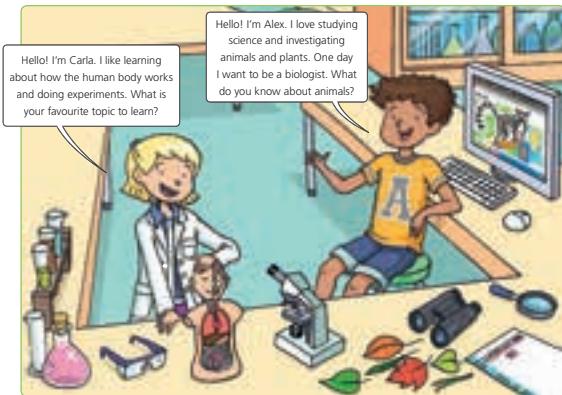
PAGE 4

Activity 1

- Indicate the picture and elicit who the characters are, some basic information about their appearance and their study preferences. Ask pupils to read the list of content in the book and think about what they most like to study. Encourage pupils to share their interests and preferences. Indicate the Useful language box to help them express their ideas.

MEET CARLA AND ALEX

1 Get to know Carla and Alex. Answer their questions.



In this book, you will learn about:

- how your body works
- all types of animals on the planet
- plant life
- energy and matter
- machines and amazing inventions
- ... and lots more!

Useful language

- My favourite topic is ...
- My favourite topics are ...
- Animals are ...
- They eat ...
- They have ...

4

- Change the pupils' focus to the laboratory setting. Elicit ideas from the class about where Carla and Alex are. Ask them how they know it is a laboratory, and what they can see in the picture that they associate with a laboratory. Play 'I spy...' using the objects in the picture, and elicit the names of the various objects and what they are used for. Focus on the safety glasses, and indicate Carla's laboratory coat. Use them to elicit ideas about working safely in a laboratory setting.

WRAP IT UP

Make an 'About me' hand. Give the pupils a sheet of paper each. Ask them to draw around their hand, leaving an outline on the page. Next, ask them to write five short sentences about themselves on each finger. Ask them to personalise and decorate their hands.

FAST FINISHERS

Use some of the information the class discovered in the mingle activity to make a class poster about their favourite science topics.

WORK TOGETHER 5

Work together

Let's work and learn together!

In every unit, you will find a section called *Work together* where you will be asked to work with your classmates in a cooperative way. You will be using the following cooperative techniques. Would you like to know a bit more about them?

Teammates consult

- 1 In groups of four, each of you will get one question to answer.
- 2 Put your pencils in the middle of your desks.
- 3 Now it is time to talk! Take turns reading your question to the rest of the group. All teammates express their opinions or doubts, discuss ideas and decide on one answer as a group.
- 4 Now, take back your pencils! It is time to stop talking and start writing the answer quietly on your own.
- 5 Repeat the process for each question.



Cooperative investigation

- 1 In groups of four, talk about your experiment.
- 2 Create a hypothesis on your own first, then share it with the rest of your team.
- 3 Decide on one hypothesis for the whole group to work on.
- 4 Do the experiment and write down your conclusions.
- 5 Compare your conclusions with your original hypothesis.



SUMMARY

The *Work together* pages contain activities that help pupils to learn to work cooperatively. There are two types of cooperative learning techniques in this book: *Teammates consult*, and *Cooperative investigation*.

LANGUAGE

- Work on your own / in your group
- Take turns / What do you think ...?
- Make a hypothesis / plan
- Develop conclusions / Test your hypothesis

5

GETTING STARTED

PAGE 5

- Explain that pupils will work together in their groups to solve a problem orally. Set them a logic puzzle, such as the 'fox, goose, and bag of beans' puzzle.

Once upon a time a man had a fox, a goose, and a bag of beans. On his way home, the man had to cross a river in a small boat. He could only take himself and one item: the fox, the goose, or the bag of beans. If left alone together, the fox would eat the goose, or the goose would eat the beans. The man had to take all three things across the river, without anything being eaten. How did he do it? (Answer: First he takes the goose and leaves it on the far side. Then he takes the fox (or beans) but brings the goose back. Then he takes the beans (or fox) and leaves the goose on the original side, and finally comes back for the goose.)

- Set a time limit and elicit ideas at the end. Discuss the benefits of group work, such as reaching solutions by working cooperatively, sharing tasks and respecting everyone's views.

Teammates consult

Tell the pupils that with this technique they will be working first together and then alone. Explain that

sharing ideas together is a good way of learning, but this means we also have the responsibility to listen to the ideas of others.

Read the steps out loud and check the pupils understand the instructions.

Cooperative investigation

- In *Cooperative investigation* pupils will also work in groups of four. Each group will decide on a hypothesis with contributions from all members, decide on a plan of action to test the hypothesis, and finally examine and compare the results with the hypothesis. As with *Teammates consult*, pupils practice cooperative learning techniques.
- Brainstorm classroom rules for working in groups, for example: *Listen to your partner. Help your group.*

WRAP IT UP

Show the pupils how to make a mini book using an A4 piece of paper. Ask the pupils to write *Class Rules* on the cover, and then to choose 5–7 of the rules from the brainstorming session to write in their mini books. Ask them to compare their rules with a partner.

Notes



INTERACTION

INTERACTION

CONTENTS	EVALUATION CRITERIA Pupils will be able to:
Vital functions in human beings: interaction	Know the systems involved in interaction.
The senses	Know how the sense organs work.
Introduction to scientific activity: sources of information	Use different sources of information.
Work and study skills	Develop work and study techniques, work habits and effort and responsibility.
Projects and reports	Plan and carry out projects, presentations and reports.

► OPENING PAGES

Song: *Five senses*

STORY

A trip to the doctor's

► WORK TOGETHER

Sensitive skin

► CONTENT PAGES

The nervous system
Sight
Hearing
Smell and taste
Touch
The locomotor system

► OUR WORLD

Sensing our world

► REVIEW

► UNIT SUMMARY

In this unit pupils will learn about:

- the nervous system and the parts of the brain
- the five senses and their organs
- the locomotor system

► LANGUAGE FOCUS

- Vocabulary to describe objects
- Bones, muscles and joints
- The senses
- Tastes
- The nervous and locomotor systems

► KEY STRUCTURES

- Should
- Made of ...
- Warn (sb) about ...
- Tell (sb / sth) to ...
- This / These
- Reason clauses: because
- Possibility: might
- Comparatives and superlatives

	LEARNING STANDARDS Pupils are able to:	KEY COMPETENCES						
		LIN	MST	DIG	LTL	SOC	AUT	CUL
	Understand the locomotor and nervous systems are involved in interaction, and identify the elements they are composed of.	●	●				●	
	Know how the senses play an important role in interaction.		●			●		
	Understand how the sense organs work.			●				
	Know some problems that can affect our senses and how to look after the sense organs.		●			●		
	Look for, select and organise concrete and relevant information; analyse, reach conclusions, communicate the results, reflect on the process and communicate information orally and in writing.	●		●	●		●	
	Express orally, clearly and in order, the contents related to the unit, displaying understanding of oral and written texts.	●	●		●			●
	Carry out simple experiments and investigations.				●			●

LIN Competence in linguistic communication

MST Competence in mathematics, science and technology

DIG Competence in the use of new technologies

LTL Competence in learning to learn

SOC Competence in social awareness and citizenship

AUT Competence in autonomous learning and personal initiative

CUL Competence in artistic and cultural awareness

DIGITAL RESOURCES

PUPIL'S IWB

LEARNING KIT

- Interactive activities
- Flashcards
- Presentation
- Song
- Multimedia

TEACHER'S KIT

- Test generator
- Wordlist
- Worksheets
- Lyrics
- Multimedia
- 360° evaluation tests

FAMILY CORNER

- Presentations
- Wordlist
- Family guide

① 1.02 Page 7, Activity 6 (*Five senses song*)

① 1.03 Page 7, Activity 7 (*Five senses song*)

① 1.04 Page 8, Story (*A trip to the doctor's*)

① 1.05 Page 10, The nervous system

① 1.06 Page 10, Brain and nerves

① 1.07 Page 11, Parts of the brain

① 1.08 Page 12, Eyes

① 1.09 Page 12, How do you see things?

① 1.10 Page 13, Ears

① 1.11 Page 13, How do you hear things?

① 1.12 Page 14, Smell

① 1.13 Page 14, Taste

① 1.14 Page 15, Skin

① 1.15 Page 16, The locomotor system

① 1.16 Page 16, The skeleton

① 1.17 Page 17, Muscles

6 OPENING PAGES

SUMMARY

The aim of the unit opener is to develop pupils' observational skills and find out what they already know about the human body and the five senses. Elicit action verbs that describe what is going on in the scene and adjectives to describe the various characters and objects.

LANGUAGE

- Question words: who, how many, etc.
- Prepositions of place: in, on, under, next to
- There is / are ...
- Should
- Vocabulary: interact, organs, senses, heart, lungs, skeleton, joints, bones, sweet, soft, hard, smooth

MATERIALS

Digital flashcards.

1.02 – 1.03 Five senses song

GETTING STARTED

- If you are using an interactive whiteboard, focus only on the picture of the doctor's office, not the questions. Either elicit ideas about what is happening in the picture, or ask questions, pointing to each part of the picture.
- Alternatively, use the whiteboard writing tools and ask the pupils to come up to the board, mark an area of the picture and describe what they can see. Help them produce full, correct sentences.

STEP BY STEP

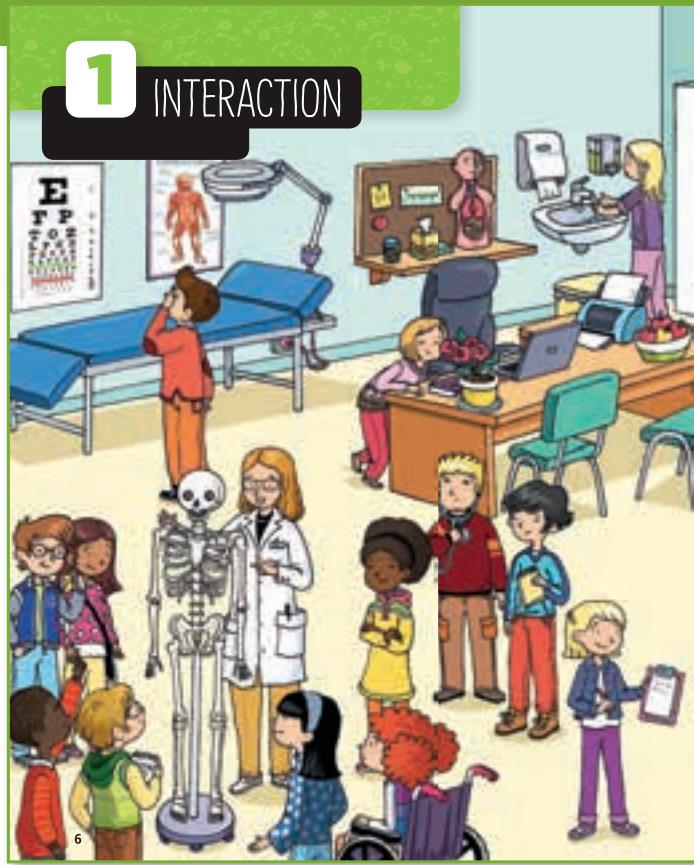
PAGES 6–7

Activity 1

Elicit the names of the organs of the five senses. Encourage the pupils to talk about the noises they can hear when they come to school, the things they can see, the odours they can smell, etc.

Activity 2

- Ask the pupils to discuss the question and then report back to the class. Draw their attention to the Useful language box to give their answers.



- You can refer to a person skiing or to a fireman to get the pupils to talk about how they protect their senses when they are working or doing sports.

Activity 3

If the pupils do not know the answer, give them clues by asking where all the information from their senses is processed.

Activity 4

Use the whiteboard writing tools to circle the answers easily.

Activity 5

As the pupils may not have encountered the adjectives before, the words may have to be explained. Elicit ideas about objects in the class which correspond to the different characteristics before moving on to the objects in the picture.

Activity 6 1.02

Indicate the parts of the body, asking the pupils to point to their own sense organs. When they are ready, play the song. Give them time to write their answers in their notebooks, and then play the song again to check.

LET'S BEGIN

- 1 Which organs do you use to interact with the world around you?
- 2 What should you do to protect your senses?
- 3 Which is the organ that controls the body?
- 4 Look at the picture and find someone who:
 - is using their senses.
 - is taking care of their body.
 - is helping somebody.
- 5 Identify objects in the picture with these characteristics.
 - sweet
 - soft
 - hard
 - smooth
- 6 Listen to the Five senses song. In your notebook, write the words in the order you hear them.
- 7 Sing the song. Point to the parts of your body.

What do you know? Let's find out!

Useful language

I should ...
I shouldn't ...

7

7

1.02–1.03 FIVE SENSES

Five senses, five senses,
All together, the world is clear. [x2]

I can smell a pretty rose,
Smell, smell with my nose.
I can hear people talk,
Hear, hear with my ear.
Cold water on my hands,
Feel, feel on my skin.
A tasty lollipop,
Taste, taste with my tongue.
Things around me, colours and shapes,
See, see with my eye.

Five senses, five senses,
All together, the world is clear. [x2]

Activity 7 1.03

Play the song again and ask the class to sing along while they point to the parts of their body.

TARGETED QUESTIONS

◎ **What can you see in the classroom?** Let all the pupils participate. You can extend the question by asking them to look for objects with different characteristics.

◎◎ **You can bring some objects to the class and let the pupils touch them. How do they feel?**

◎◎◎ **How do deaf people communicate?** Pupils can make up some gestures of their own for the rest to guess.

◎◎◎◎ **How many foods and tastes can you think of?** Make a list on the board and let the pupils vote for their favourite food.

360° EVALUATION

Download, print and distribute the Diagnostic test and Self-evaluation test for the pupils to complete.

SOLUTIONS

1 Eyes, ears, nose, tongue, skin

2 Wear sunglasses, gloves, etc.

3 The brain

4 Pupils' own answers

5 Sweet (apple); soft (chair stretcher ...); hard (table, door, skeleton, shelf ...); smooth (glasses, sink ...)

6 Nose, ear, skin, tongue, eye

WRAP IT UP

Play 'Stand up, sit down' using the song to review the vocabulary of the sense organs. Explain to the pupils that they have to stand up and sit down quickly every time one of the sense organs is mentioned.

8 STORY

SUMMARY

This page opens with a story in which your pupils have the opportunity to see Carla and Alex at a particular moment of their school trip to the doctor's office. They are talking to the doctor and showing their knowledge of parts of the body.

LANGUAGE

- Present simple of the verb to be
- Vocabulary: tongue, legs, nose, elbows, arms, knees, brain, limbs, joints, head, organ, skeleton, muscles

1.04 A trip to the doctor's

Story

A trip to the doctor's

Listen, read and act out.

1 Alex and Carla are learning about the human body ...
Hi Alex and Carla! Do you know any parts of the body?
Of course!
We can show you!

2 Here are the arms.
Arms and legs are limbs.
And here are the legs.

3 These are the elbows.
Elbows and knees are joints.
And these are the knees.

4 Your brain is inside your head.
It is a very important organ.
And don't forget, the skeleton is covered by muscles.

1 Read the descriptions and match them to the words below.
There are two extra words.

a This is a lower limb.
b This is a joint. It helps you move your arms.
c This is an upper limb.
d This is the organ that controls your body.

tongue leg nose elbow arm knee brain

8

GETTING STARTED

- Play a memory game with the picture on pages 6–7. With their books closed, pupils tell you details they can remember from it.
- Draw a stress pattern on the board and ask the pupils to find examples of it in the story: Oo (human, organ, body, elbow, muscles).

STEP BY STEP

PAGE 8

A trip to the doctor's 1.04

Ask three pupils to read the story from the book. The rest of the class should read along. The concepts can be further reinforced by dividing the class into groups of three and asking them to act out the story, each taking the role of the doctor, Alex and Carla. This is a good opportunity to work on intonation and expressive language.

Activity 1

Ask the pupils to read the sentences and match them to the correct words they refer to. When they finish, they can come up with a similar definition for the two words that are extra.

WRAP IT UP

Review vocabulary and spelling of parts of the body. Divide the class into small groups. Hand out sticky notes and ask pupils to choose one member of the group to be a model. The rest of the group labels their classmate with the parts of the body written on the notes.

FAST FINISHERS

In pairs, one pupil points to a part of his / her body and the other shouts out the correct name. Then, they can swap.

SOLUTIONS

- 1 a. leg; b. elbow; c. arm; d. brain; e. nose

WORK TOGETHER 9

Work together

Think first

Different parts of your body have more or less sensitivity. You are going to check this by touching different parts of the body with a variety of objects. In groups, choose three of four areas of the body to test, for example, palms of the hands, fingertips, arms, and cheeks. Think about the following questions individually. Then discuss them as a group. Take notes about your group's answers.

- Which is the most sensitive part?
- Which is the least sensitive part?
- Will you be able to identify the objects with your eyes covered?

Materials: variety of objects with different textures (feather, pine cone, sponge, tennis ball).

Steps

- Work in pairs. Blindfold your partner.
- Use the objects you have chosen to touch the different parts of your partner's body.
- Now swap places with your partner. Write your conclusions.
- Compare your conclusions with the other pair.



Reflect

Revise your answers to the Think first questions. Has the experiment changed your ideas about skin sensitivity? Could you identify the different objects?



9

SUMMARY

Pupils will use the *Cooperative investigation* technique applied to an enquiry-based activity to encourage their curiosity about the world around them. First, the pupils will discuss their ideas with a partner, then share them with the class, in order to form a class hypothesis. Next, they will agree on a plan and work in pairs to carry it out. With their partner, they will develop their conclusions and share them with the class. Finally, the pupils will test their hypothesis by comparing their conclusion to their original hypothesis.

LANGUAGE

- Comparatives and superlatives: more, less, the most
- Language of speculation: I think ..., I don't think ...
- Vocabulary: sensitivity, parts of the body

MATERIALS

Variety of objects with different textures, (feather, pine cone, sponge, tennis ball).

GETTING STARTED

- In this section, the pupils will develop their own hypothesis regarding skin sensitivity.
- Make sure you have a variety of different objects as pupils will need them in their experiment. Let them touch the objects and say how they feel. Alternatively, say a texture and ask a pupil to point to an object with that characteristic.

STEP BY STEP

PAGE 9

Set up the activity, then give the class two minutes to read through the first section and to think about their hypothesis. Then, divide the class into groups of four.

- Step 1.** Make sure each pair in the group of four has a blindfold and access to the materials. Monitor the pupils as they are blindfolding their partners.
- Step 2.** Make sure the pupils are comfortable wearing the blindfolds and that the experiment is carried out correctly (touching parts of their partner's body with different objects).

- Step 3.** After the pupils have swapped with their partners and done the experiment, remind them to write down their findings in their notebooks.
- Step 4.** Explain to the pupils that they need to compare their conclusions with the other pair of their group so they can present their final conclusion to the rest of the class.
- Pupils should check their hypothesis in Think first and compare it to their conclusion of their experiment.

WRAP IT UP

Ask the pupils to discuss their experience of being blindfolded and how they identified the different objects.

360° EVALUATION

Download, print and distribute the Cooperative learning evaluation for the pupils to complete.

10 THE NERVOUS SYSTEM

SUMMARY

These two pages introduce the pupils to the nervous system. There is a lot of new vocabulary and concepts on this double page, so do not expect them at this stage to absorb all of the information at once. The main learning aim is to understand the purpose of the nervous system and to gain a basic understanding of how it works.

LANGUAGE

- Vocabulary: brain, nerves, skull, spinal cord, spinal column, cerebrum, cerebellum, brain stem, signals, balance, voluntary, involuntary
- Warn about ...
- Tell (sb / sth) to ...
- Reason clauses: because

1.05 The nervous system

1.06 Brain and nerves

1.07 Parts of the brain

GETTING STARTED

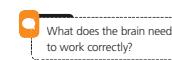
- Write this sentence on the board: *The nervous system controls everything we do.* In teams of four pupils, they have 30 seconds to write things the nervous system controls, such as walking, talking and breathing. Pupils compare their answers as a class.
- Indicate the initial question and elicit ideas (energy).

STEP BY STEP

PAGES 10–11

- Before you read the texts on page 10, ask the pupils to point to where the brain is in their bodies. Indicate the picture and pre-teach the vocabulary.
- Ask the pupils to say where the nerves in their body are (*There are nerves in every part of the body.*). Remind them of the results of their sensitive skin experiment from page 9. Ask the pupils why some parts of the body are more sensitive than others. (*Some parts of the body have a higher concentration of nerves than others.*)

The nervous system



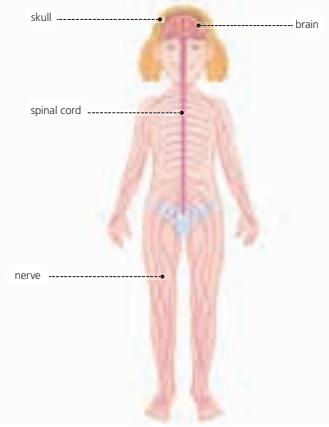
The nervous system controls everything you do: thinking, walking, talking, breathing, remembering, etc. It also allows you to interact with your environment and can keep you safe from danger. The nervous system is made up of the **brain**, the **spinal cord** and the **nerves**.

Brain and nerves

The most important part of the nervous system is the **brain**. This organ is inside your head and is protected by the **skull**.

The brain receives different types of information from the sense organs, through the **nerves**. In most cases this information goes to the brain from the **spinal cord**, which is like a two-way street for sensory information to travel inside your spinal column.

The brain reads the signals sent by the eyes, ears, nose, tongue and skin. Then it sends messages back to different parts of the body.



1 What are the three main parts of the nervous system?

2 Which parts of the body can send messages to the brain?

3 Why is the skull important?

10

- Indicate the diagram of the cross-section of a head on page 11. Ask the pupils why the brain is the most important organ in the body.
- Explain the different parts of the brain and draw the pupils' attention to the photos below. Ask questions about the texts to check understanding.

Activity 1

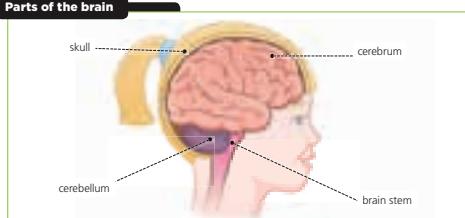
You can help them by giving the definitions and asking them to say the words. Encourage the pupils to write their answer in their notebooks.

Activity 2

If the pupils are having difficulty, tell them these parts of the body send messages to the brain via the nerves. You can help them by saying that there are five parts.

Activity 3

Ask the pupils to place their hands on their heads and gently feel their skulls beneath their hair. Ask them to think about the properties of their skull (*rounded, smooth, hard*). Ask the pupils what would happen if their skull did not have these properties.



Parts of the brain

The **cerebrum** controls voluntary actions. These are things you want to do, for example, talking, writing or reading.

The **cerebellum** controls balance, movement and coordination.

The **brain stem** controls involuntary actions. These are things you do not think about, for example, breathing and digesting food.

4 Which part of the brain helps you when you are riding your bike or skateboarding?

5 How can the nervous system keep you safe from danger?

6 With your partner, make a list of eight voluntary and involuntary actions. Which parts of the brain control them?

Useful language

The nervous system warns you about ...
The nervous system sends messages and tells the brain to ...

11

Activity 4

Ask the pupils what they need to have in order to ride their bike or skateboard (*balance and coordination*) and which part of the brain controls it.

Activity 5

Encourage the pupils, in pairs or in groups, to think of what would happen if they crossed the road in busy traffic and in what ways the nervous system would alert them of all the dangers. Sentences in the Useful language box can help them give their answers.

Activity 6

Refer back to the brainstorming activity or ask the pupils to write down five actions in their notebook. They should then match them to the different parts of the brain. Ask the pupils to compare their answers with a partner.

WRAP IT UP

Elicit which parts of the brain pupils have used in class today and what they used them for (*cerebrum for thinking, writing, speaking; cerebellum for putting their hands up, walking; brain stem for actions such as blinking, sneezing, etc.*).

FAST FINISHERS

If you have access to the internet in the classroom, you can ask the pupils to find out the name of the bones which protect the spinal column (*vertebrae*). If not, the activity can be done at home with the help of parents.

SOLUTIONS

- 1** The brain, spinal cord and nerves
- 2** The sensory organs
- 3** It is important because it protects the brain.
- 4** The cerebellum
- 5** The senses, reflexes, etc., help you avoid danger.
- 6** Pupils' own answers

12 SIGHT

SUMMARY

This page focuses on the sense of sight and introduces the pupils to a detailed explanation of how our eyes work.

Depending on the level of your class, this can be done in greater or lesser detail. The important learning aim is to provoke interest in the process of sight.

LANGUAGE

- This / These
- Sequence words: then, next, after that, etc.
- Vocabulary: sight, pupil, iris, lens, retina, eyebrows, eyelid, eyelashes, sweat, dust

1.08 Eyes

1.09 How do you see things?

GETTING STARTED

Indicate the initial question and ask the pupils to identify the iris in their partner's eye and compare with theirs.

STEP BY STEP

PAGE 12

- Pupils read the texts. Indicate the diagram and ask them to identify the different parts of the eye.
- Focus their attention on the framed diagram and ask what the eye is looking at (*cherries*). They should identify the different numbered parts of the diagram.
- After the pupils have read the process of how they see things, ask questions to check understanding.

Activity 1

Ask the pupils to close their books, draw a picture of an eye and label the parts that protect it from sweat and dust.

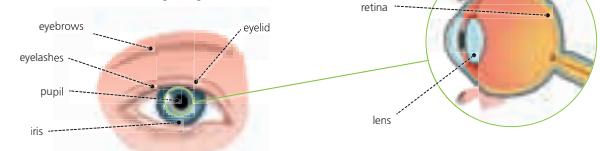
Activity 2

Make a class survey to find out each pupil's favourite eye color. You can also find out which one is the most common in the class.

Sight

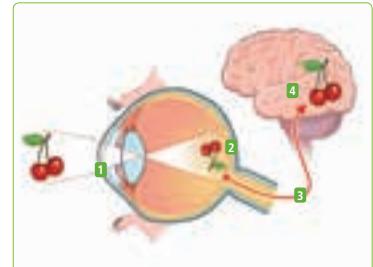
Eyes

Your eyes are the organs of sight. The eyes are very delicate and are protected by the eyebrows, eyelashes and eyelids. These stop sweat and dust from getting into your eyes.



How do you see things?

- 1 Light reflects off an object and enters the eye through the **pupil**.
- 2 The light goes through the **lens** and makes an image on the **retina** at the back of the eye. The image is upside down.
- 3 The **retina** sends the information to the brain.
- 4 The **brain** reads the signals and turns the image right side up.



1 Name the parts of the eye used for protection. What do they do?

2 What do you call the coloured part of the eye?

3 In pairs, look at each other's eyes and identify the different external parts of the eye.

Useful language

This is the ...
These are your ...

12

Activity 3

Allow pupils time to really examine each other's eyes and look at the way the pupil changes size. Encourage them to look at the Useful language box to give their answers.

WRAP IT UP

Play the 'Alphabet game' to list things they can see in the classroom. Pupils have to suggest something for each letter of the alphabet.

SOLUTIONS

- 1 The eyebrow, eyelid and eyelashes protect the eye from dust and sweat.
- 2 Iris
- 3 The eyelid, eyebrow, iris, pupil and eyelashes

HEARING 13

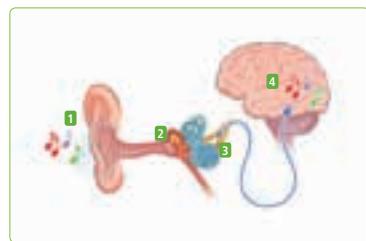
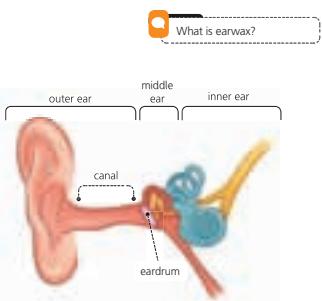
Hearing

Ears

Your ears are the organs of hearing. The ear has three parts: the outer ear, the middle ear and the inner ear. The ears are very delicate. Earwax is a sticky substance inside your ear canal. It protects your ears from dirt and infection.

How do you hear things?

- 1 Sound waves enter through the **outer ear**.
- 2 The waves hit the **eardrum** in the **middle ear** and make it vibrate.
- 3 This vibration makes the liquid in the **inner ear** move and send signals to the brain.
- 4 The **brain** reads the signals and tells you what you are hearing.



1 Look around. Which objects make sounds?

2 Which organ reads signals from our eyes and ears?

3 How do sound waves travel? Order the words.

brain sound wave middle ear
outer ear inner ear

4 What are some diseases that affect the sense of hearing?

5 What symptoms can occur if you do not clean your ears well and leave too much earwax?

6 What language do deaf people use to communicate?

13

SUMMARY

This page focuses on the function of the ear. Depending on the level of your class, this can be done in greater or lesser detail. The important learning aim is to provoke interest in the process of hearing.

LANGUAGE

- Vocabulary: hearing, outer ear, middle ear, inner ear, eardrum, canal, substance, earwax; interact, protect, reflect, vibrate; sticky, dirt, infection

1.10 Ears

1.11 How do you hear things?

GETTING STARTED

- Indicate the initial question and elicit answers (*It's a sticky substance that protects ears from dirt and infection.*).
- Ask the pupils to read the texts and look at the diagram. Then, ask questions to check understanding.

STEP BY STEP

PAGE 13

Activity 1

Ask the pupils to look around the classroom and identify objects that make pleasant and unpleasant sounds.

Activity 2

Pupils write their answers in their notebooks.

Activity 3

Use sticky notes with the vocabulary written on them and ask the pupils to put them in the correct order.

Activity 4

Tell the pupils about miniere's disease and how it affects the inner ear and causes vertigo.

Activity 5

Talk about hygiene habits people should follow.

Activity 6

This activity can be set as homework for the next lesson.

WRAP IT UP

Play 'Hangman' to review vocabulary from the page.

SOLUTIONS

- 1 Pupils' own answers
- 2 The brain
- 3 Sound wave, outer ear, middle ear, inner ear, brain
- 4 Ear infection, tinnitus, etc.
- 5 Dizziness, hearing problems, etc.
- 6 Sign language

14 SMELL AND TASTE

SUMMARY

This page revises the senses of smell and taste. This subject matter will be familiar to them by now. The main learning aim is to further their knowledge of how we smell and taste and which organs and parts of the body work together to do so. It is probably the first time they will reflect on how taste and smell are connected.

LANGUAGE

- Vocabulary: nose, nostrils, olfactory nerve, odour, tongue, taste buds, sour, bitter, sweet, delicious
- A / an ... tastes ...

1.12 Smell

1.13 Taste

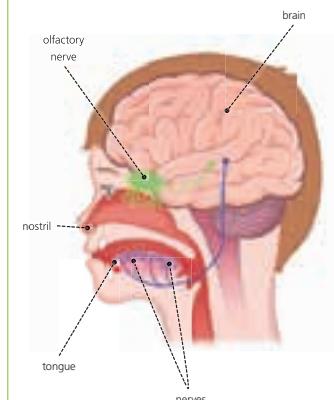
Smell and taste

Smell

Your nose is the organ of smell. Air enters the nose through the nostrils. The **olfactory nerve** sends information to your brain which tells you what you are smelling. You can smell about 10,000 different odours.

Taste

Your **tongue** is the organ you use to taste. The tongue is covered in **taste buds**. These identify different tastes. Nerves send information about the different tastes to your brain.



Project tips

Spices are ingredients which add flavour to food.

1 What does the olfactory nerve do?

2 What is the function of the taste buds?

3 Think of six different foods. How do they taste?

4 Why do we sneeze?

5 What are some diseases that affect the sense of smell and taste?

Useful language

A / An ... tastes sour / bitter, etc.

A / An ... tastes delicious / horrible, etc.

GETTING STARTED

Ask the initial question and elicit ideas (*We're unable to smell and taste because of the mucus in the nose.*).

STEP BY STEP

PAGE 14

Indicate the diagram and ask the pupils to identify what they can see.

Activity 1

Ask the pupils to complete this sentence: *The olfactory nerve sends ... to our* You can write this sentence on the board and ask for volunteers to spell the words *information* and *brain* to complete it.

Activity 2

Say names of different foods and identify their tastes. You can also talk about the new taste of 'Umami'.

Activity 3

- Pupils discuss their ideas in pairs or in small groups. They should use the Useful language box to help them express their ideas.
- Refer to the Project tips box as this content page will be useful for their project.

Activity 4

Pupils can discuss the question in small groups.

Activity 5

Ask the pupils if they have ever experienced a loss of sense of smell or taste and elicit how they felt.

WRAP IT UP

Play 'Hangman' to review vocabulary.

SOLUTIONS

- The olfactory nerve sends information to the brain.
- Taste buds identify different tastes.
- Pupils' own answers
- We sneeze when an irritant enters the nostrils or we have a cold.
- Colds, allergies, etc.

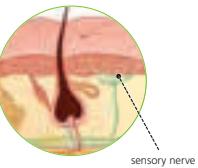
TOUCH 15

Touch

Skin

Your skin is the organ you use to touch. The body is covered in skin. Your skin can tell you if something feels hot or cold, rough or smooth, hard or soft. Sensory nerves send this information to your brain.

Which is the largest organ in the human body?



hot



rough



hard



cold



smooth



soft

1 Think of two objects for each characteristic.

smooth cold rough hot

2 Explain why touch is such an important sense.
Do you think taste and smell are as important as touch?

3 What are some diseases which affect the sense of touch?

Useful language

Touch is an important sense because ...

Without the sense of touch, you might ...

15

SUMMARY

Pupils are introduced to the sense of touch and will learn how their skin warns them from danger. They will revise adjectives to describe characteristics of objects.

LANGUAGE

- Reason clauses: because
- Possibility: might
- Warn (sb) about ...
- Vocabulary: touch, skin, sensory nerve, hot, rough, hard, cold, smooth, soft

MATERIALS

Variety of objects with different textures.

1.14 Skin

GETTING STARTED

- Pass around different objects and ask pupils to think of words to describe how they feel (*soft, hard, smooth, rough, hot, cold*). Alternatively, put objects in a bag and ask volunteers to feel one of the objects without looking, guess what it is and describe how it feels.
- Ask the initial question and elicit the answer (*the skin*).

STEP BY STEP

PAGE 15

- Explain that the skin is made of many layers of cells, which is why it is so flexible, and that as the cells flake off the surface, new ones replenish it from below.
- After the pupils have read the introduction to the section, they can think of other examples for the textures or temperatures reflected in the photos. Brainstorm ideas with the whole class and write them on the board as a reference.

Activity 1

Pupils can use objects from the class to talk about the different characteristics.

Activity 2

Ask the pupils to discuss the question in small groups or in pairs. Elicit ideas using the sentences from the Useful language box.

Activity 3

You can take the opportunity to talk about chilblains and what causes them. At this point, do not explain its relation to the circulatory system.

WRAP IT UP

Play a memory game with words from pages 12–15.

SOLUTIONS

- Pupils' own answers
- Touch is an important sense because it protects us from danger.; All of them are important to prevent us from danger.
- Chicken pox, burns, frostbite, etc.

16 THE LOCOMOTOR SYSTEM

SUMMARY

On this double-page spread, the pupils study the locomotor system. A particular feature of these pages will be the new vocabulary involved in naming bones and muscles. Depending on the level of your class, this can be done in greater or lesser detail.

LANGUAGE

- Superlatives
- Should
- Vocabulary: skeleton, bones (skull, scapula, rib, humerus, etc.), joints, muscles (pectoralis, biceps, trapezius, triceps, etc.)

1.15 The locomotor system

1.16 The skeleton

1.17 Muscles

GETTING STARTED

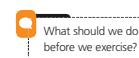
Ask the class the initial question. Elicit ideas about what exercise they do, and what they should do before and after (*stretch your muscles*).

STEP BY STEP

PAGES 16–17

- Indicate the diagram on page 16 and ask the pupils to place their hands gently on their head. They should remember information about the skull from earlier in the unit, so now it is a good time to revise their ideas. Read the names of the bones one by one, taking time to explain to the pupils how to feel them. Some bones such as the pelvis are easier to sense through movement.
- Ask the pupils to take a pen or a similar small object and to grip it in their hand. Ask them to put their other hand on their forearm and say if they can feel the muscle tense. Then, ask them to relax their grip and see what happens to the muscle in their arm. Finally, ask them to smile and ask if they can feel the muscles in their face move.

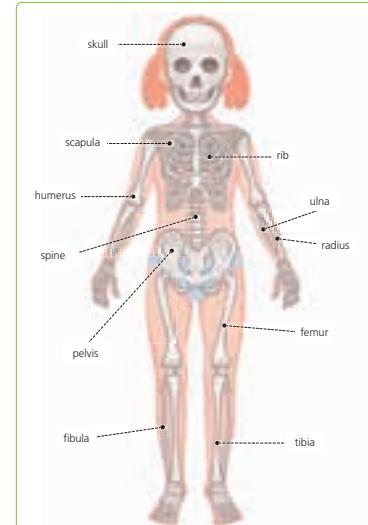
The locomotor system



The **locomotor system** lets you control the different parts of your body and allows you to move around. The locomotor system includes bones, joints and muscles.

The skeleton

All the **bones** make up the skeleton. Your bones are connected by **joints**. The joints in your knees, elbows and shoulders allow your bones to move.



1 Look at the picture of the skeleton and answer the questions.

- Which bone protects the brain?
- Which bones form part of the lower limbs?
- Which bones form part of the upper limbs?

2 How many bones do you have in your body?

3 Which is the longest bone in the body?

Useful language

The longest bone is the ...

16

- Refer to the diagram on page 17 and the introductory text. Ask questions to check understanding. Explain that the muscles are attached to the bones at the joints with tendons.

Activity 1

Explain to the pupils humans have four limbs (two arms and two legs). Tell them to identify which correspond to the upper and lower limbs.

Activity 2

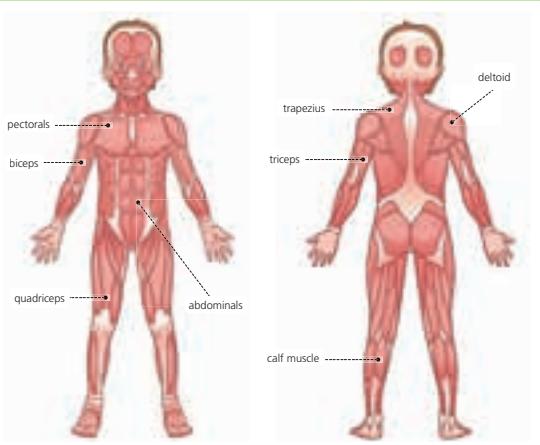
Write 206, 256, 270 and 305 on the board and ask the pupils which one they think is correct. Tell them to investigate why we have more bones when we are born and share their findings the following day.

Activity 3

Encourage the pupils to look at the diagram and draw their attention to the Useful language box to give their answer. They may mistakenly indicate the spine, so take this opportunity to explain that the spinal column is made of small interlocking bones called vertebrae.

Muscles

You have **muscles** around many of your bones. They help you walk, stand, sit, hold objects and make other movements.



4 Look at the pictures above and answer the questions.

- a. Which muscles help you walk and jump?
- b. Which muscles help you move your arms?
- c. Which muscles do you use to play tennis or pick up things?

5 The heart is a muscle too. What function does it have? Which bones protect it?

6 Can you control the movement of all your muscles?

17

Activity 4

Ask the pupils to walk a few paces. Explain that there are many smaller muscles in the body which allow us to move smoothly, but that there are two principle muscles which help us walk or jump. Elicit ideas. Then, ask the pupils to pick something up off the floor (or they can pretend to). Elicit the muscles they use.

Activity 5

Elicit ideas about the heart's function. Ask the pupils to put their hand over where their heart is and say which bones they can feel beneath their hands.

Activity 6

Write *involuntary movement* on the board and brainstorm what the pupils can remember from page 11. Which muscles do they have no control over? And limited control?

WRAP IT UP

Ask the pupils to draw a three by two grid in their notebooks. Play 'Bingo' to review vocabulary from pages 16–17.

FAST FINISHERS

Find out more about the heart. You can ask the pupils how often the heart beats in a day, how much blood it pumps around their body, the difference between an artery and a vein, etc.

SOLUTIONS

1 a. skull; b. femur, tibia and fibula; c. humerus, ulna and radius

2 206 (270 at birth)

3 Femur

4 a. calf muscles and quadriceps; b. biceps and triceps; c. all your muscles working together

5 The heart pumps blood around the circulatory system. It is protected by the ribs.

6 Only voluntary movements and some involuntary movements can be stopped for a short time, such as when you stare, hold your breath or stop a sneeze.

18 OUR WORLD

SUMMARY

This double-page spread focuses on the importance of looking after the senses and looks into the topic of blindness into depth. This provides pupils with the opportunity to learn about living without one of our senses and how visually impaired people can use specially prepared objects and tools to help them maintain their autonomy and carry out everyday tasks.

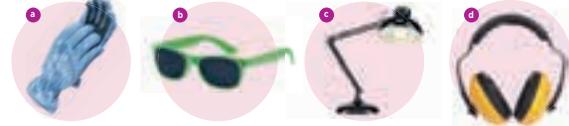
LANGUAGE

- You should always ..., you should never, it's dangerous to ..., it's safer to ...
- I think ..., I don't think ..., perhaps / maybe, I would change ..., a good idea would be ...
- Vocabulary: gloves, sunglasses, headphones, tool, drill, screens, white cane, guide dog, visual impairment

Our world

Sensing our world

What can you do to protect your senses? Look at the photos below. Which objects should these people use to protect their senses? Match the people to the objects they need.



1 Look at photos a–d. Which of these objects do you use to protect your senses?

2 How can you protect your sense of taste?

3 What else should you do to look after your senses?

4 Read the tip below. Which sense is being protected?

Looking at screens, including mobile phones, can cause eye damage. Make sure you take a break when working with screens and try to spend as much time as possible playing outside.

5 Prepare a list of five tips that you will try to follow every day to protect your senses.

Useful language

I should always / never ...

I shouldn't ...

It's dangerous to ...

It's safer to ...

GETTING STARTED

If it is a sunny day, come into the classroom with a pair of sunglasses, or a pair of gloves or hat if it is a cold day. Elicit ideas about what they are and what they are used for. Brainstorm ideas about other pieces of clothing we use to protect our senses. Draw five columns on the board, one for each of the senses and see how many protective objects the class can think of for each.

STEP BY STEP

PAGES 18–19

- Ask the pupils to read the introductory text on page 18 and identify what the people in the photos are doing and what the objects below are. Elicit which object is needed by each person (1.b, 2.a, 3.d, 4.c).
- Ask the pupils to imagine what it would be like not to see. You can blindfold a volunteer and ask them how they feel, which sense they are using more to help them, etc.
- Then, they read the introductory text on page 19 and look at the photos below. Check if they thought of all three things in the photos.

Activity 1

Pupils focus on the objects and say how they protect our senses.

Activity 2

Ask the pupils to think back to the work they did on the sense of taste from page 14. You can ask them what can harm our sense of taste, what measures they can take to prevent this from happening, etc.

Activity 3

Ask the pupils to make suggestions using the sentences in the Useful language box as a reference.

Activity 4

Elicit how much time the pupils spend in front of a screen each day and what they do to let their eyes relax.

Activity 5

Tell the pupils to limit their list to two or three points. Ask them to compare with a partner.

Activity 6

Pupils should think of ideas together from their own experience.

Visual impairment

Can you imagine not being able to see? Close your eyes, then think about what things you would need help with. Many people with visual impairments (total or partial lack of sight) live active lives. Look at the photos below. How can these things help visually impaired people? Which would be the most useful and why?



guide dog



white cane



braille



6 Think of other things that can help people with visual impairments.

7 How can visually impaired people use public spaces such as streets or parks?

8 What can visually impaired people use to read?

9 Imagine you need to design a house for a visually impaired person. It needs to be safe and comfortable. Here are some ideas that might be useful.

- Think about your house. Would it be safe for a visually impaired person? What would you have to change to make it safe? Which rooms would you change?
- What electronic devices might help visually impaired people? Where would you find them in a house?
- Draw the house plan.
- Share your ideas with your classmates.

Useful language

I think that ...

I don't think that ...

Perhaps / Maybe ...

I would change ...

A good idea would be ...

19

Activity 7

Pupils should think of what is in place to help the visually impaired, such as audible pedestrian crossings and textured pavements. Ask them to think of what else could be helpful.

Activity 8

Indicate the third photo and ask them how else they could access literature or the arts. Ask the pupils if they like or have used audio books. Encourage them to talk about their advantages.

Activity 9

Indicate the suggestions but emphasise that they should develop their own ideas too. Refer to the Useful language box for using the phrases listed.

WRAP IT UP

Search house plans online to create a wall display on visual impairment. Pupils could also visit some websites dedicated to assistive technology designed to help the blind to see if some of their ideas are featured online.

TEACHER TIPS

If pupils are using language incorrectly, give them a correct model and get them to repeat the corrected item twice.

SOLUTIONS

1 Pupils' own answers

2 Avoiding colds and allergens, etc.

3 Pupils' own answers

4 Sight

5 Pupils' own answers

6 Pupils' own answers

7 The use of bumps in the pavement to indicate there is a zebra crossing, the sounds produced at zebra crossings, etc.

8 Braille and audio devices

9 Pupils' own answers

20 REVIEW

SUMMARY

This double-page spread offers pupils the opportunity to organise what they have learnt in the unit by means of a concept map. Pupils review content by completing a set of autonomous review activities. They can also learn a new study skill: in this unit pupils can use a spider diagram to organise and review what they have learnt.

Pupils can undertake a simple End-of-unit test.

LANGUAGE

- Imperatives: write, add, order, choose, colour
- Should
- Encourage pupils to speak and write in complete sentences

MATERIALS

Digital flashcards.

GETTING STARTED

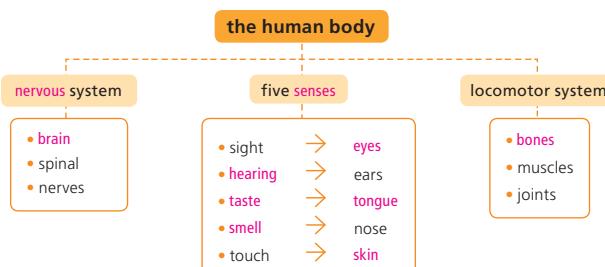
Play a race game with the picture on pages 6–7. Pupils look at it and point to what you describe. This works well on the interactive whiteboard as you can ask two pupils or teams to come to the board and use the writing tools to mark their answers.

STEP BY STEP

PAGES 20–21

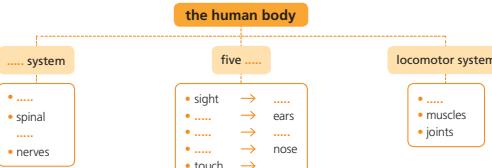
Activity 1

- Remind the pupils that when we organise new information, it is easier to understand and remember it.
- Focus the pupils' attention on the concept map and ask them to tell you what the missing words are. Pupils should copy and complete the concept map in their notebooks.

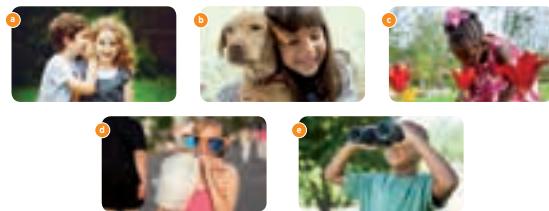


REVIEW

- 1 Copy and complete in your notebook.



- 2 Which sense organs are they using? Write the answers in your notebook.



- 3 Choose the correct words and write the sentences in your notebook.

- a The eye / brain is the control centre of the body.
- b A knee / leg is a type of joint.
- c The skin / brain is the largest organ in the body.
- d The arms are the upper / lower limbs.
- e The skull / spinal cord protects the brain.
- f The brain stem / cerebellum controls coordination.

20

Activity 2

Pupils can describe the photos and say which senses they focus on. Tell them we never only use one sense at a time.

- a. hearing
- b. touch
- c. smell
- d. sight, taste and touch
- e. sight

Activity 3

After doing the activity, they can make sentences with the words they have not chosen.

- | | |
|----------|---------------|
| a. brain | d. upper |
| b. knee | e. skull |
| c. skin | f. cerebellum |

Activity 4

- a. touch
- b. sight
- c. hearing
- d. touch

4 In your notebook, write which of the five senses these objects protect.



5 How do you see and hear things? Order the words in your notebook.

a. retina pupil brain lens light

b. middle ear sound brain inner ear outer ear

6 In pairs, put the words in order to make questions. Test your partner.

Pupil A

- a. organ / the / what / sight / is / of ?
- b. brain / does / do / what / the ?
- c. ear / parts / how / does / the / have / many ?

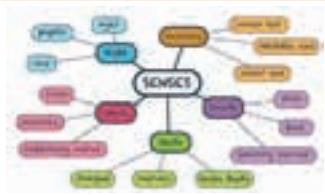
Pupil B

- a. does / what / locomotor / the / include / system ?
- b. organ / is / smell / what / the / of ?
- c. external / the / what / are / eye / of / the / parts ?

Study skills

Use a spider diagram to organise what you know about the senses.

- Write the main subject in the middle.
- Add legs for each section.
- Add information to each section.
- Use colours for the different sections.



What do you know now? Check your progress!

21

Activity 5

Review the process of seeing and hearing things. Encourage the pupils to use correct linking words (*first, then, next, etc.*).

a. light, pupil, lens, retina, brain

b. sound, outer ear, middle ear, inner ear, brain

Activity 6

Pupils should write out the questions in their notebooks before using them to test their partner orally.

Pupil A

a. What is the organ of sight? (The eye)

b. What does the brain do? (It reads the signals of the sense organs.)

c. How many parts does the ear have? (Three)

Pupil B

a. What does the locomotor system include? (Bones, joints and muscles)

b. What is the organ of smell? (The nose)

c. What are the external parts of the eye? (The eyelid, eyebrows and eyelashes)

Study skills

- Use a spider diagram to organise what you know about body systems.
- If this is the first time your class has used a spider diagram, spend some time explaining how they help learn and how to draw them (this type of diagram helps make connections between related concepts and work well for visual learners).
- Pupils should copy the diagram in their notebooks. Remind them to start in the centre of the page and leave plenty of space around the sides to add more words if they want (they could add more body systems to this diagram, for example).
- Encourage the use of colours and capital letters for key words.
- This could be a pair-work activity drawn on A3 card to display later on the wall.

360° EVALUATION

Download, print and distribute the End-of-unit test. Compare the test at the end of the unit with the ones the pupils did at the beginning. Ask: *What did you learn?* Elicit vocabulary and concepts for the unit.

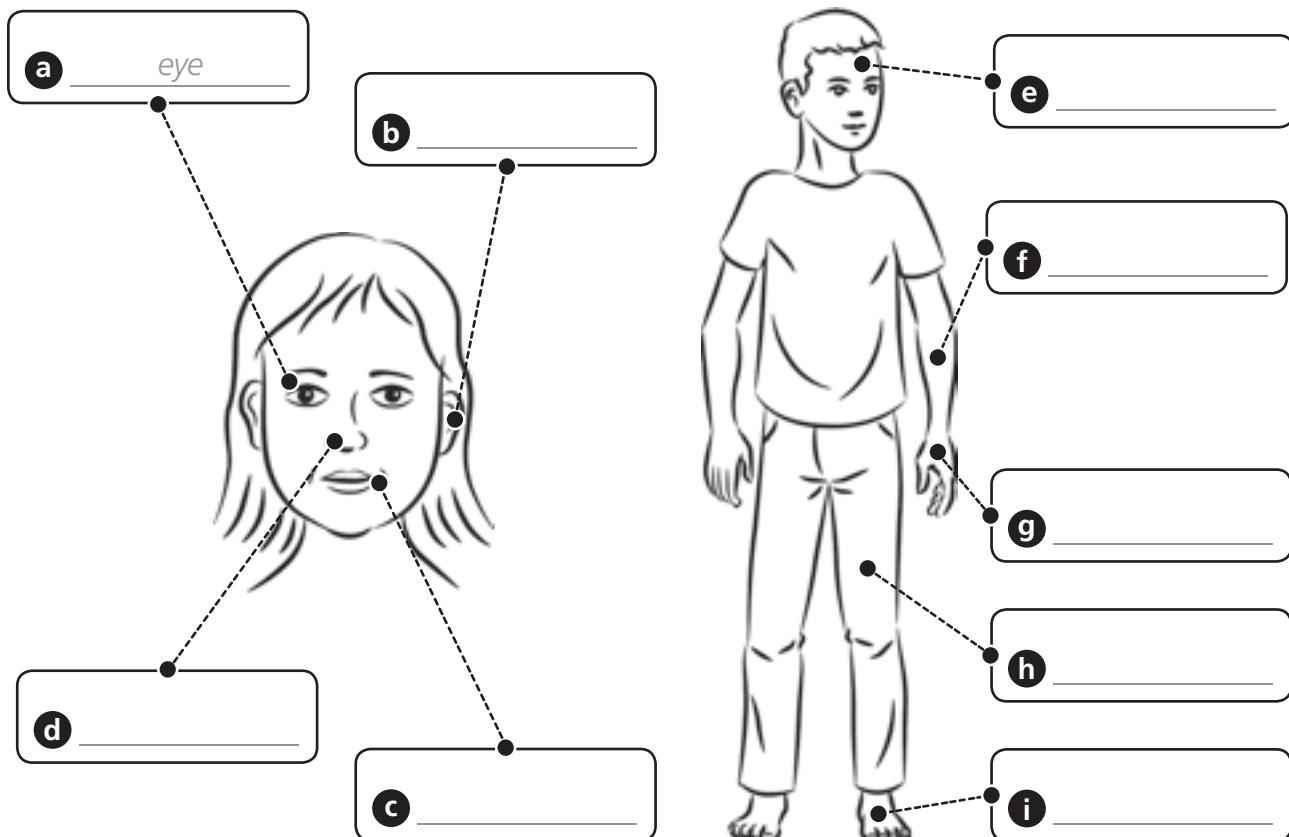
UNIT 1**DIAGNOSTIC TEST**

Name: _____

Class: _____

1 Label the parts of the body.

arm mouth leg nose foot ear hand -eye- head

**2** Cross the odd one out.

- a** Bones: pelvis / spine / lungs / skull / ribs
- b** Joints: wrist / ankle / cerebrum / elbow / knee
- c** Senses: smell / taste / touch / hear / talk
- d** Muscles: abdominals / wrists / deltoids / biceps / trapezius

3 Read the sentences. Circle *true* or *false*.

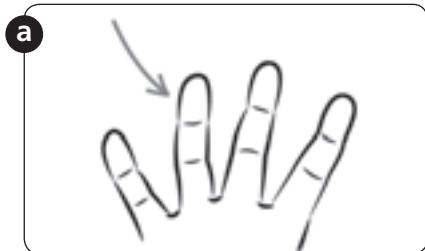
- a** The knees, elbows and shoulders are all examples of joints. *true* / false
- b** The nervous system allows you to interact with the environment. true / false
- c** Your eyes can tell you how something feels. true / false
- d** The brain, skin and heart are all organs. true / false
- e** Nostrils are holes which allow light to enter your eyes. true / false

4 Circle the correct words.

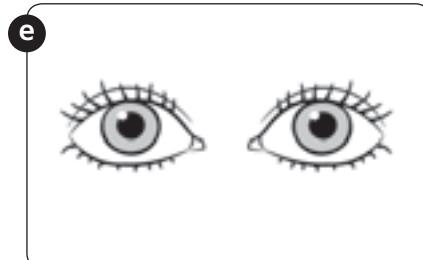
- a** The most important part of the nervous system is the brain / spinal cord.
- b** The cerebellum / brain stem controls balance and coordination.
- c** The cerebellum / cerebrum controls voluntary actions such as dancing.
- d** The cerebrum / brain stem controls involuntary actions such as digesting food.

5 Write the sense.

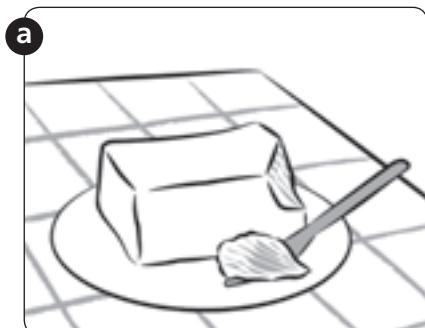
sight hearing smell taste -touch-



touch



6 How do these things feel? Circle two words.



smooth / rough

hard / soft

hot / cold

hard / soft

smooth / rough

smooth / rough

UNIT 1**PUPIL'S SELF-EVALUATION**

Name: _____

Class: _____

What do you know about how your body interacts with the environment? Tick.

	I'm an expert!	I know some things, but I have some questions.	I have lots of questions!
The nervous system: the parts and function			
Sight: the parts of the eye and how it works			
Hearing: the parts of the ear and how it works			
Smell: the parts of the nose and how it works			
Taste: the parts of the tongue and how it works			
Touch: the skin			
The locomotor system: the parts and function			

UNIT 1**COOPERATIVE LEARNING
EVALUATION**

Name: _____

Class: _____

Evaluate your cooperative learning. Tick.

Self-evaluation

	Great work!	Good job!	I can do better next time!
I worked well with my group.			
I waited my turn to speak.			
I listened to the rest of the group members.			
I asked for help when I needed it.			

Group evaluation

	Great work!	Good job!	We can do better next time!
We all contributed to the project.			
We shared our ideas and listened to each other.			
We respected each other's opinions.			
We finished our task on time.			
We all helped to prepare the experiment.			
We solved any problems we had effectively.			
We all enjoyed working together.			

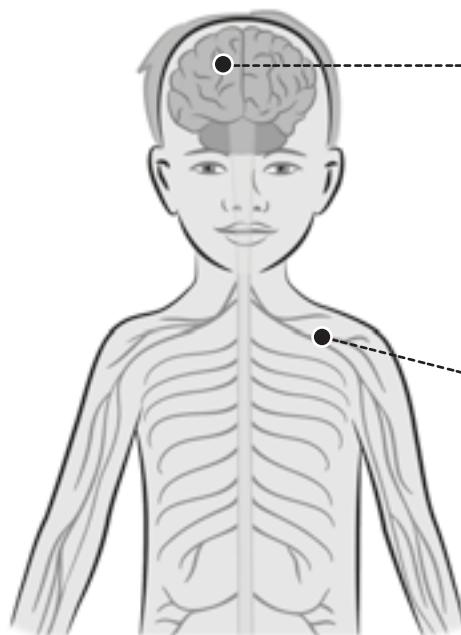
UNIT 1**END-OF-UNIT TEST**

Name: _____

Class: _____

1 Label the nervous system.

cerebrum brain brain stem nerves cerebellum

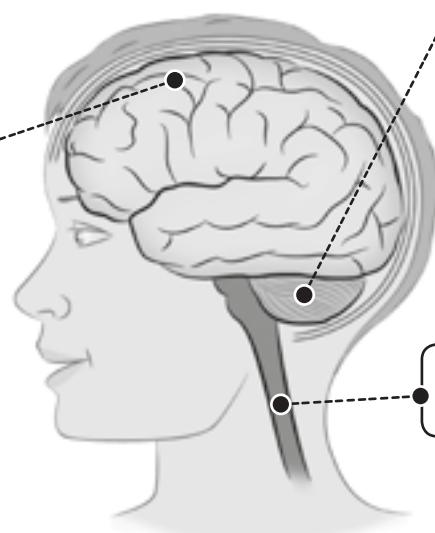


a _____

b _____

d _____

c _____



e _____

2 Complete the sentences.

cerebellum brain stem sense organs cerebrum

- a** The brain receives information from the _____.
- b** The _____ controls voluntary movements such as painting.
- c** The _____ controls balance and coordination.
- d** The _____ controls involuntary movements, such as breathing.

3 Are they bones, muscles or joints? What is their function?

- a The heart is a muscle. It pumps blood around the body.
- b The elbow is a joint. It connects your upper and lower arm.
- c The skull is a bone. It protects your brain.
- d The knee is a joint. It connects your leg to your body.
- e The ribs are bones. They protect your lungs.
- f The shoulder is a joint. It connects your body to your arm.

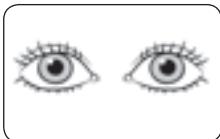
4 Complete the sentences about the senses.



a Your skin is the organ of touch.



b Your ears are the organs of hearing.



c Your eyes are the organs of sight.



d Your mouth is the organ of taste.



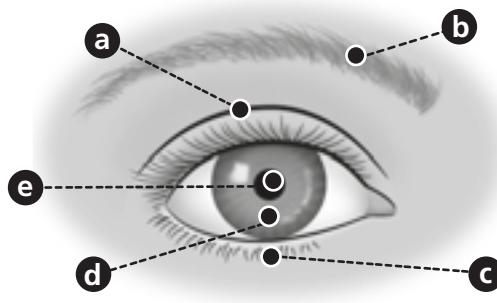
e Your nose is the organ of smell.

5 How do you see? Order the sentences.

- The light goes through the lens and makes an image on the retina.
- The brain reads the signals and tells you what you are seeing.
- Light reflects off an object and goes in the eye through the pupil.
- The retina sends the information to the brain.

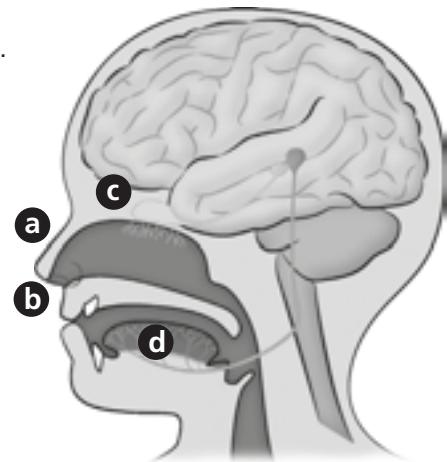
6 Label the parts of the eye.

- a eyelid
- b _____
- c _____
- d _____
- e _____



7 Label the diagram on how you smell and taste.

- a Your nose is the organ you use to smell.
- b Air enters the nose through the _____.
- c The _____ sends the information to your brain.
- d Your tongue is covered in _____ which identify all the different tastes.

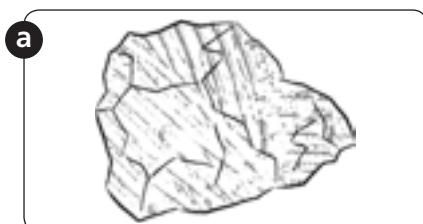


8 How do you hear? Complete the sentences.

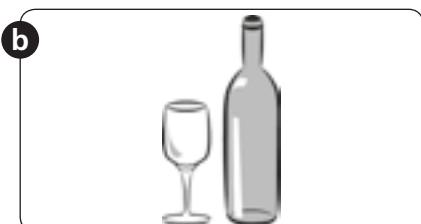
middle signals brain outer inner eardrum

- a Sound waves enter through the _____ ear.
- b The waves hit the _____ in the _____ ear and make it vibrate.
- c The vibration moves liquid in the _____ ear which sends _____ to the brain.
- d The _____ reads the signals and tells you what you are hearing.

9 How do these things feel? Write two properties for each.



Rocks feel rough and ...



Glass feels ...



Ice cream feels ...

Pupils

UNIT 1**LETTER HOME**

Dear Parent / Carer,

In this unit, your child will begin by looking at the vibrant illustration related to the body systems and the five senses on the first two pages. This illustration will act as a tool to help your child brainstorm ideas and opinions on the subject matter and to assess their previous knowledge. Your child will then listen to and read the story about the course characters, Carla and Alex, who are on a school trip to the doctor's office. The story will be accompanied by audio and fun illustrations which will ease your child into the unit subject matter while encouraging curiosity and participation.

After the story, your child will move on to the *Work together* section in which they will use a cooperative learning technique to carry out a group experiment. Your child will learn about how the sense of touch functions while also developing important teamwork and communication skills.

This unit on interaction will expand on your child's previous knowledge of the human body. Your child will learn more about the importance of the nervous system and the functions of its main parts, as well as the process of how the brain reads the information sent by each sense organ.

Finally, the *Our world* page will encourage your child to reflect on what life might be like for people with visual impairments, as well as ways they can take care of their own senses.

Useful language tips throughout the unit will provide your child with language support to help them improve their oral skills.

Key vocabulary

- Cerebellum, cerebrum, brain stem
- Eyes, ears, nose, tongue, skin
- Sight, hearing, smell, taste, touch
- Muscles, bones and joints

Materials

- Objects with different textures (feather, pine cone, sponge, tennis ball, etc.), blindfold

Have fun and happy learning!

Best wishes,

Science teacher

Notes

Handwriting practice lines for notes.



Notes