

> Research

SKILLS SECTION	CROSS-CURRICULAR LINKS <i>Learners have opportunities to apply their knowledge and understanding of, and skills in:</i>	TOPICS MODELLED
Starting with	Geography: human geography <ul style="list-style-type: none"> Understand issues of water and its effects on people Language skills: reading <ul style="list-style-type: none"> Use scanning and skimming appropriately depending on the type of information required Language skills: speaking and listening <ul style="list-style-type: none"> Use language to convey ideas and opinions, with some detail Listen, reflect on what is heard and give a reasoned response Maths: statistics and probability <ul style="list-style-type: none"> Plan and conduct an investigation to answer a set of related statistical questions, considering what data to collect Science: thinking and working scientifically <ul style="list-style-type: none"> Ask scientific questions and select appropriate scientific enquiries to use Make predictions, referring to relevant scientific knowledge and understanding within familiar and unfamiliar contexts Collect and record observations and/or measurements in tables and diagrams appropriate to the type of scientific enquiry 	Water, food and farming
Developing	Language skills: reading <ul style="list-style-type: none"> Extract main points from a text, and group and link ideas Language skills: writing <ul style="list-style-type: none"> Explore and use different ways of making notes (e.g. bulleted lists, mind maps) and use them to inform writing Geography: human geography <ul style="list-style-type: none"> Understand distribution of natural resources including energy, food, minerals and water 	Keeping healthy Water, food and farming Reduce, reuse, recycle Looking after Planet Earth Moving goods and people
Getting better at	Maths: statistics and probability <ul style="list-style-type: none"> Use the language associated with likelihood to describe and compare likelihood and risk of familiar events, including those with equally likely outcome Science: thinking and working scientifically <ul style="list-style-type: none"> Collect and record observations and/or measurements in tables and diagrams appropriate to the type of scientific enquiry Make a conclusion from results informed by scientific understanding Language skills: reading <ul style="list-style-type: none"> Locate and use relevant information from a single text or different texts 	Water, food and farming Reduce, reuse, recycle

The cross-curricular links in this table are reproduced from Cambridge International curriculum frameworks. This Cambridge International copyright material is reproduced under licence and remains the intellectual property of Cambridge Assessment International Education.

Cambridge Primary Global Perspectives 5: Teacher's Resource

Starting with research skills: Lesson 1

In Lesson 1, learners focus on starting to construct research questions, by considering the process of creating and classifying questions, and by undertaking this process for themselves.

CAMBRIDGE STAGE 5 RESEARCH LEARNING OBJECTIVES

1.1 Constructing research questions: Begin to construct research questions with support

LESSON LEARNING GOALS

To start to:

- identify different types of question
- make my own questions to help me understand a topic.

Resources needed

Learner's Skills Book 5

Downloadables 1.1, 1.2 and 1.3

Challenge topic (e.g. Water, food and farming)

Either: Images of water being used: in the school, in the local community, in local industry or agriculture; news footage of local flooding (or drought)

Or: Images relevant to your chosen topic (uses and problems) in the region of your school. This unit lends itself to a wide range of issues where there are issues around the use and supply of resources

(Optional) https://www.unicef.org/cwc/cwc_58613.html is a useful resource

Prior learning (approx. 5–10 mins)

Good for: Activating previous knowledge.

Activity: Ask learners to think about different ways in which they personally use water; or different ways in which they use the focus of your chosen topic personally – for example, transport, communication or sports facilities.

Ways of working: Give learners time to think for themselves about ways in which they use (e.g.) water before discussing with their partner. Stage a class

discussion: can your learners suggest ways in which these uses can be grouped? For example, with water these could be health, growing things, leisure, making things. Or transport: going to work, travelling for leisure, for cultural reasons, and so on.

Differentiation: Support learners by showing pictures of different ways in which, for example, water is used locally and asking them to identify what the use is from the picture. Challenge learners to consider how to come up with examples of how, for example, water is used by different groups of people in the community. This approach could equally be applied to the different local issue used.

Suggested answers: Look for and encourage any responses that acknowledge universal human need – for example, water for health and cleanliness. Contrast these with uses that are more specific to the learners' local community – for example, in some places waterways are significant transport links in others they are not. If you are working on a different topic, local–global comparison and contrast could equally be explored.

Starter activity (approx. 10–15 mins)

Good for: Knowing that something that is universally needed (e.g. water) has different uses in different locations. Understanding that availability may vary and that there are associated problems from which issues arise. Identifying different types of questions that can be asked about an issue.

Activity: Read through the learning goals for this lesson with learners at the beginning of this activity. After looking at the example, either ask learners to consider water uses and problems in their area – or consider relevant uses and problems with their challenge topic.

Ways of working: Learners work in pairs or small groups to complete the table. In a plenary session, encourage learners to share and respond to each other's ideas.

Differentiation: Support learners by checking their understanding of the example based on water by using questioning. Continuing with the issue, they can then consider how they use it personally, or look at problems it causes them in order to complete the table. Alternatively, challenge learners to develop their understanding and complete the table based on different groups of people in the community.

Starting with research skills: Lesson 2

Suggested answers: Look for and encourage responses that clearly identify a range of uses and problems. Encourage learners to talk about their personal experiences of any such issues. For a Worked Example on the communication topic, see Downloadable 1.1.

Main activity (approx. 20–25 mins)

Good for: Helping learners to start identifying different types of question that can be asked about a topic, and making up their own questions to develop a deeper understanding of it.

Activity: After looking at the example of how a mind-map can be used to generate questions about a topic as a class, ask learners to identify different types of question as uses or problems. Then ask them to consider either water in their own area or their challenge topic and to make up their own questions about the issue, following this model.

Ways of working: Learners work in pairs or small groups to identify different types of question in the table. Check

their answers in a plenary session before moving on to the second part of the activity.

Learners then work in pairs or small groups to write their own questions (either about water in their area or your own challenge topic) to complete another table (see Downloadable 1.2). Follow this with a plenary session, encouraging learners to share and respond to each other's ideas. (If time allows, ask each pair or group to read out one of their questions, getting others to identify whether it is a use or a problem.)

Differentiation: Support learners by checking their understanding of the questions in the mind-map by using questioning. Focus on their own experiences in the area, and encourage them to come up with one example of each type of question (What? When? Where? Who? Why?). Challenge learners to use the model and apply it to their own challenge topic, and to identify a number of questions (uses / problems / What? When? Where? Who? Why?) about it.

Suggested answers: See the Worked Example in Downloadable 1.3.

Starting with research skills: Lesson 2

In Lesson 2, learners focus on starting to develop their information skills, by devising questions and matching potential sources of evidence (both primary and secondary); and their skills in conducting research, by devising a questionnaire.

CAMBRIDGE STAGE 5 RESEARCH LEARNING OBJECTIVES

- 1.2 Information skills: Identify sources and locate relevant information and answers to questions within them
- 1.3 Conducting research: Conduct investigations using interviews or questionnaires to test a prediction or begin to answer a research question

LESSON LEARNING GOALS

To start to:

- recognise different sources that can help me to find out about a topic
- design a questionnaire to use in an investigation
- make simple predictions about what I think I will find out in an investigation.

Resources needed

Learner's Skills Book 5

Downloadables 1.4, 1.5 and 1.6

Challenge topic (e.g. Water, food and farming)

Whiteboards/pens (optional)

Prior learning (approx. 5–10 mins)

Good for: Activating pupils' awareness that different sources of information can be useful for different reasons.

> Cambridge Primary Global Perspectives 5: Teacher's Resource

Activity: Pupils match questions to potential sources of information.

Ways of working: This would lend itself well to paired discussion.

Differentiation: Support learners by encouraging them to work through methodically. For example, as part of a process of elimination, we can rule out a dictionary as a source of information about our local area. Challenge learners to evaluate other sources of information according to whether or not they can provide locally relevant information – for example, a national newspaper, talking to children in other schools.

Suggested answers: 1 = i, 2 = g; 3 = d; 4 = f; 5 = f; 6 = b; 7 = a

Starter activity (approx. 10–15 mins)

Good for: Applying the prior knowledge.

Activity: Read through the learning goals for this lesson with learners at the beginning of this activity. Learners generate questions relevant either to a topic on water in their locality or to their own challenge topic.

Ways of working: In the Learner's Skills Book, it is suggested that learners work in pairs – with one responsible for questions, the other responsible for potential sources of information as modelled by the characters. This could equally be done as a whole-class activity (e.g. using whiteboards to take suggestions) or individually.

Differentiation: Support learners by pointing out the 'What? When? Where? Who? Why? How?' approach. Suggest one or two locally relevant questions to get the ball rolling. Challenge learners to develop their answers. If more than one source of information is identified for a particular question, what different information will each one yield?

Suggested answers: For a Worked Example based on a topic on farming, see Downloadable 1.4.

Main activity (approx. 20–25 mins)

Good for: Learners to understand how a research question:

- can be broken down into a series of smaller questions
- can be structured to give answers on a continuum.

Activity: Using the question stem 'How often do we... in our class?', learners devise a question based on their challenge topic and produce a questionnaire based on the template in Downloadable 1.5.

Ways of working: You may wish learners to devise their own question. You may wish to undertake the first part as a whole-class activity. The characters in the Learner's Skills Book make predictions for their investigation and give reasons based on their prior understanding. Give learners the opportunity to jot down their own prediction in the Learner's Skills Book prior to the class discussion. Use this as a stimulus for a discussion on their own topic.

Differentiation: Support learners by working with them to break down the broader topic question into component aspects. You may wish to follow the modelled topic of water if learners are less secure. Challenge learners to apply the modelled question and grid more independently.

Suggested answers: For a Worked Example of a questionnaire based on a farming topic, see Downloadable 1.6. For the class discussion, return to the characters' questionnaire; the characters in the Learner's Skills Book make predictions for their investigation and give reasons based on their prior understanding. Use this as a stimulus for a discussion on your topic.

Starting with research skills: Lesson 3

In Lesson 3, learners focus on starting to develop their information skills, by sequencing an investigation; and conducting research and recording findings,

by considering some of the difficulties of imprecise information when recording their findings for the class survey they devised in Lesson 2.

Starting with research skills: Lesson 3

CAMBRIDGE STAGE 5 RESEARCH LEARNING OBJECTIVES

- 1.2 Information skills: Identify sources and locate relevant information and answers to questions within them
- 1.3 Conducting research: Conduct investigations using interviews or questionnaires to test a prediction or begin to answer a research question
- 1.4 Recording findings: Select, organise and record relevant information from sources and findings from research using an appropriate method

LESSON LEARNING GOALS

To start to:

- find information in sources to answer my own questions
- think of my own questions to ask when interviewing someone
- recognise different ways of selecting, organising and recording information from sources.

Resources needed

Learner's Skills Book 5
 Downloadables 1.5 (from Lesson 2), 1.7 and 1.8
 Challenge topic (e.g. Water, food and farming)
 Learners' questionnaires from Lesson 2
 Whiteboards and clipboards could be useful

Prior learning (approx. 5–10 mins)

Good for: Activating learners' prior knowledge of finding things out through considering what the missing steps are in an enquiry.

Activity: Learners suggest what might have to take place before results of an enquiry can be shared but after a topic has been decided on.

Ways of working: This could be completed individually, in pairs or as a whole-class discussion – possibly using whiteboards.

Differentiation: Support learners by suggesting they work backwards from the end goal. What needed to be completed before the results could be shared? Challenge learners to develop their ideas by identifying what needs to be done in order for each stage to be successful – we have given some ideas for how these ideas can be developed in the additional right-hand column below.

Suggested answers:

Step number	Action	Success criterion (challenge)
1	Decide on a topic we can investigate.	It is a topic that affects children in our class.
2	Think of some questions we can ask.	Check they can easily give answers we can record as numbers.
3	Make a questionnaire.	Try to ensure it can cover all possible answers.
4	Interview some people.	Make sure that the people we interview are people who can answer the questions based on what they know.
5	Record our results.	A tally chart would be good.
6	Tell others what we found out.	Summarise the information; give the main facts.

Starter activity (approx. 10–15 mins)

Good for: Learners to develop interviewing skills – especially when the respondent gives imprecise answers or the initial questions need further precision.

Activity: Read through the learning goals for this lesson with learners at the beginning of this activity. Learners then try to complete the table in the Learner's Skills Book based on sometimes vague answers.

Ways of working: This could be done in pairs, with each partner taking it in turns to act as Marcus with the other partner attempting to record the results.

Differentiation: Support learners by working with them to identify one thing that can be known for sure first – are there others? Challenge learners to complete the table based on a member of their class that they interview.

Cambridge Primary Global Perspectives 5: Teacher's Resource

Suggested answers:

Key

Underlined	Clarification needed
Shaded	Information that can be recorded

Marcus 'Everybody in my family brushes their teeth twice a day. My dad makes tea like literally *all* the time. My mum drinks coffee once a day but no one else likes it. We put the washing machine on several times a week. We water the garden every day in the summer. To be honest, we might not wash the car that much – maybe once a month. We wash the dishes several times a day. My sister takes a bath once a week, but the rest of us take showers.'

- 1 It could reasonably *assumed* that Marcus's dad makes tea several times a day!
- 2 Key here is how many are in Marcus's family. Working out on average how often Marcus's family waters the garden assuming a three-month-long summer could be an interesting Maths activity.

Downloadable 1.7 provides a Worked Example for Marcus's group's questionnaire.

For the class discussion questions, responses based on the Worked Example on the communication topic might be:

- 1
 - People use ICT without really thinking about it.
 - They may be shy to admit they don't have internet access.
 - Different people might have different ideas about what an education site is.
 - Different people might have different ideas about what a news site is.
 - People might not know about the other people they live with.
- 2
 - Tell people in advance about the survey and ask them to keep a log of their own use.
 - Assure them that the survey will be anonymous.
 - Give some examples of education sites.
 - Give some examples of news sites.
 - Tell people in advance about the survey and ask them to discuss this with people they live with.

Main activity (approx. 20–25 mins)

Good for: Conducting a survey and recording the results.

Activity: Learners use the questionnaire that they created in Lesson 2 (from Downloadable 1.5) to find out about their challenge topic from other members in the class.

Ways of working: Learners will need to move around to conduct their survey. Clipboards could be used to facilitate this.

Differentiation: Support learners by listening to how they conduct the interviews and suggest follow-up questions that might help them to obtain clarity. Challenge learners to evaluate whether or not their questionnaire design covered all possible answers. How could it be improved?

Suggested answers: These will depend on the challenge topic. Downloadable 1.8 provides an example of the kind of questionnaire that learners might use for a topic on communication.

Peer feedback (approx. 5–10 mins)

The peer feedback helps learners to evaluate the clarity of their questions. Pair each learner with a partner from a different group. Ask them to think about features of each other's questions such as their choice of topic, how clear the question was, what could have been easier to answer, and so on.

Taking it further: Lessons 1–3

Learners who readily grasped Marcus's summary of water uses and problems in his home area (Lesson 1) could be challenged further to investigate their own area, contrasting locality. They could present their findings in the form of annotated maps of the locations using ICT, identifying where water is supplied and issues (e.g. areas prone to flooding or scarcity).

Ask learners in groups to think of six ways that they use water at home, apart from drinking it. They then give each use a number from one to six, and play a game by rolling a dice or spinning a spinner. Whatever number is shown on the dice or spinner, the player whose turn it is must say a way of reducing the amount of water when using it in the way that corresponds to that number (so if '1' corresponds to 'brushing my teeth', the player who

Developing research skills: Lesson 4

throws a '1' might say 'turn the tap off while brushing'). Encourage players to come up with their own rules for the game (for example, awarding a point for each new way they think of saving water when using it for a

particular purpose). If players find it hard to come up with a variety of different ways of saving water for each use they have identified, encourage them to carry out further research.

Developing research skills: Lesson 4

In Lesson 4, learners focus on developing their skills at constructing research questions, by thinking about a topic for investigation and identifying the most helpful type of question on which to base their research.

CAMBRIDGE STAGE 5 RESEARCH LEARNING OBJECTIVES

- 1.1 Constructing research questions: Begin to construct research questions with support

LESSON LEARNING GOALS

To develop my knowledge and understanding about:

- making questions that can help me investigate a topic.

Resources needed

Learner's Skills Book 5

Challenge topic (e.g. Water, food and farming, Keeping healthy)

Pictures illustrating the difference between bottled water and tap water, and/or locally available examples of brands of bottled water (e.g. advertisements). Learners could also bring in examples of their favourite local brand of bottled water

Prior learning (approx. 5–10 mins)

Good for: Building on previous knowledge.

Activity: Ask learners to rank questions according to how helpful they would be in eliciting information.

Ways of working: Learners work individually on the task to begin with before getting into pairs or small groups to discuss their work. Stage a plenary session to allow learners to share their ideas and respond to others.

Differentiation: Support learners by checking their understanding of the questions and the context by using questioning. It may be helpful here to discuss the difference between 'closed' questions (usually those with a limited range of answers, such as 'YES/NO' questions) and 'open' questions (usually those starting with a question word such as what, why, how, etc.), which elicit more information. Challenge learners to explain the reasoning behind their decisions about ranking the questions.

Suggested answers: There are no definitive answers. Encourage learners to justify their decisions. Questions 1, 4 and 6 are 'closed' questions. Questions 1 and 6 might still be 'helpful' in the sense that they elicit information about students' opinion of the visit, and could tell the school something about the success of the visit. Questions 2, 3 and 5 are 'open' questions, although Question 3 is not eliciting new information. Questions 2 and 5 are 'helpful' from the school's point of view, as they elicit specific information about the visit, which could inform future planning. Question 5 is probably the most 'helpful' of all, as it would tell the school if the trip had been successful from an educational point of view.

Starter activity (approx. 10–15 mins)

Good for: Developing thinking about a topic that could be investigated, in order to provide learners with a context for making their own research questions.

Activity: Read through the learning goals for this lesson with learners at the beginning of this activity. Ask learners to read a short paragraph giving the context for an investigation, and then to explore their prior knowledge of the topic.

Ways of working: Learners can work on the task individually to begin with. Then pair or group learners so that they can share their ideas. Encourage learners to discuss the questions for class discussion in their pairs or small groups before staging a plenary session.

Differentiation: Support learners by showing pictures related to the topic (see Resources above) and checking their understanding using questioning. Challenge

Cambridge Primary Global Perspectives 5: Teacher's Resource

learners to come up with a range of 'pros and cons' of drinking bottled water, taking into account a range of different perspectives.

Suggested answers: The 'pros' of drinking bottled water might include its taste, its safety (for example, in places where tap water is of poor quality), its health benefits (for example, if it includes certain minerals, or if it is compared with other soft drinks that contain a lot of sugar), its convenience (you can carry bottled water with you wherever you go), its cost (when compared to other soft drinks), among others.

The 'cons' might include cost (when compared to tap water), and various environmental impacts (for example, if not recycled, plastic bottles contribute to the problem of plastic pollution; bottled water may not come from local sources, so needs to be transported over long distances, using energy and creating more greenhouse gases, etc.) Some learners might also point out that the claims made by advertisers are not always true (tap water may taste just the same as bottled water, be safe to drink and have just as many health benefits), and that tap water can also be carried in reusable bottles for convenience.

For the class discussion questions:

- 1 Encourage learners to give reasons for their preference (see 'pros and cons' above).
- 2 See 'pros and cons' above, although this is not a definitive list. Encourage learners to explore perspectives on the topic other than their own. For example, some people may choose to drink bottled water because it is considered fashionable to do so; others may drink tap water because they cannot afford to buy bottled water.
- 3 Encourage learners to think of ways they could carry out their own primary research into this topic (e.g. by interviewing other people, or conducting a survey using a questionnaire) as well as using secondary sources (e.g. information available on the internet, or in printed articles, etc.)

Main activity (approx. 20–25 mins)

Good for: Developing ideas about the type of research question that is likely to elicit the most useful information about a topic.

Activity: Ask learners to consider different questions and to identify one that would lead to the most

informative research on a topic. They then think of what different responses the question might elicit as a way of beginning to predict the outcome of an investigation.

Ways of working: Learners can work individually on the task to begin with before getting into pairs or small groups to discuss their work. Give learners the opportunity to discuss the questions for class discussion in their pairs or groups before staging a plenary session. Ensure that the class discussion has taken place before moving on to consider possible responses to the research question chosen by Marcus. A further plenary session can then take place.

Differentiation: Support learners by checking their understanding of the questions and the context by using questioning. Challenge learners to explain their choice of question, and to come up with other questions of their own which could help Marcus to investigate this topic.

Suggested answers:

- 1 Question b is the most helpful question, as it will elicit information that explains why an individual chooses to drink bottled water. Note that it is an 'open' question.
- 2 From the list given, Question c might also be helpful in understanding whether bottled water forms a major part of what an individual drinks every day, or is only one of many different drinks they consume. On their own, Questions a and d are unlikely to elicit information that would help Marcus to understand the reasons for an individual's choice of drink.

Learners can also be encouraged to think of other questions that might help Marcus to understand more about this topic. For example, he could also ask the question 'What would make you change your mind about drinking tap water?'

- 3 Accept any reasonable answers, especially if supported with reasoning. Encourage learners to think about how Marcus could conduct primary research using his question. For example, he could ask people the question in an interview, giving himself the opportunity to ask more questions depending on the answer he gets. Alternatively, he could design a questionnaire using the question, perhaps with other questions (such as Question c) to elicit further information. He could also decide to whom he is going to address the question

Developing research skills: Lesson 5

(e.g. classmates, other students at his school, parents and teachers) and how many people he will ask.

Responses to the questions in Main activity part 2 might be:

1 I prefer it because I think it's safer and more healthy than tap water.

2 Because I like the taste / Because it is better for you than sugary drinks / Because it's cheaper than other drinks.

3 By asking lots of different people, and recording their answers.

Developing research skills: Lesson 5

In Lesson 5, learners focus on developing their information skills, by finding information about a topic in a source; and on recording findings, by recording the information they find using note-taking techniques.

CAMBRIDGE STAGE 5 RESEARCH LEARNING OBJECTIVES

- 1.2 Information skills: Identify sources and locate relevant information and answers to questions within them
- 1.4 Recording findings: Select, organise and record relevant information from sources and findings from research using an appropriate method

LESSON LEARNING GOALS

To develop my knowledge and understanding about:

- finding information in sources to answer my own questions
- choosing a suitable way of selecting, organising and recording what I find out.

Resources needed

Learner's Skills Book 5

Downloadables 1.9, 1.10 and 1.11

Challenge topic (e.g. Water, food and farming, Keeping healthy)

Pictures illustrating the difference between bottled water and tap water, and/or locally available examples of brands of bottled water (e.g. advertisements). Learners could also bring in examples of their favourite local brand of bottled water

Prior learning (approx. 5–10 mins)

Good for: Building on previous knowledge.

Activity: Ask learners to read a short source in the Learner's Skills Book and identify techniques used in an example of note-taking.

Ways of working: Learners work on the task individually to begin with before getting into pairs or small groups to discuss their work. (If preferred, learners could be assigned this task to complete at home before the lesson and then checked in the lesson.) Stage a plenary session to check answers with the whole class.

Differentiation: Support learners by checking their understanding of the different note-taking techniques listed in the activity by using questioning and/or giving examples. Challenge learners to identify examples of the techniques, and to come up with other possible examples and/or different techniques.

Suggested answers: For a Worked Example of the table, see Downloadable 1.9. Other techniques used here include missing out unnecessary/irrelevant words or phrases ('It is estimated that on average...'), not writing in complete sentences, using numbers/figures instead of words, and so on.

Starter activity (approx. 10–15 mins)

Good for: Developing ideas about what questions to ask about a topic before starting research into it, and predicting what answers to those questions might be found in sources.

Activity: Read through the learning goals for this lesson with learners at the beginning of this activity. Ask learners to predict answers to questions about a topic, to identify sources where those answers might be found, and to think about how they could record their answers.

Ways of working: Learners should be given the opportunity to talk about the questions for class

Cambridge Primary Global Perspectives 5: Teacher's Resource

discussion in pairs or small groups before taking part in a plenary session in which they share their ideas with the whole class and respond to others' ideas.

Differentiation: Support learners by checking their understanding of the four topic-based questions by using questioning. Challenge learners to predict answers to the questions, using their prior knowledge of the topic.

Suggested answers:

- 1 Encourage learners to explore their prior knowledge of the topic, accepting any reasonable answers, especially ones supported by evidence or reasoning.
- 2 Secondary sources such as articles published online or in print, and/or audio-visual documentaries (videos, podcasts, etc.) will be the most likely sources.
- 3 Encourage learners to see note-taking (rather than copying out, or copying and pasting, passages of text) as a way not only of recording information, but also of processing it (for example, by selecting only what is relevant, and recording it in the most efficient way), making it more likely that the information will be retained and learnt.

Main activity (approx. 20–25 mins)

Good for: Developing skills of identifying relevant information in a source, and recording it in an efficient way.

Activity: Ask learners to select a question that they will find answers to by reading a source (Downloadable 1.10). They take notes of relevant information found in the source (Main activity part 1), and share it with others in their group. (If preferred, learners can be assigned a question and given the source to read and make notes on at home before the lesson.) They can then share their information with other group members in the lesson (Main activity part 2).

Ways of working: Learners work in small groups, ideally of four per group. They make a group decision about which question each member will focus on. Each learner is then given a copy of the source to work on individually while finding information relevant to their question. Learners get into pairs for the peer feedback activity. They then work in their groups to share the

information they have found in the source, and to talk about the questions for class discussion before a final plenary session is held.

Differentiation: Support learners by checking their understanding of key vocabulary in the source by using questioning. Encourage them to use techniques such as highlighting or underlining sections of the text that contain information relevant to their question. Challenge learners to find all information relevant to their question in the source, and to record it in the most efficient way.

Suggested answers: For a Worked Example for the notes that might be taken from the source, see Downloadable 1.11. Any of the information from these notes could also be noted down when learners share their information with each other – for example, you could say:

'Now share the information in your notes with the others in your group. Listen to what the others in your group tell you. Note down three more pieces of information about bottled water:

- 1 >50 percent bottles → landfill or litter → oceans (= 8 m tonnes per yr)
- 2 Energy to make BW = 2000× more energy than TW
- 3 USA = 1500 bottles drunk per sec'

For the class discussion questions:

- 1 Accept any reasonable answers, especially ones supported by evidence or reasoning. (E.g. less than half of the plastic bottles used for bottled water are recycled. This matters, because it means that most plastic bottles end up in landfill or in the oceans, causing pollution.)
- 2 Encourage learners to think about how Marcus could use the information from the source to make people change their behaviour, for example by informing them about the pollution that is caused, or about the resources that are needed.

Peer feedback (approx. 5–10 mins)

Pair each learner with a partner from their group. Ask them to look at each other's notes, and to respond 'YES' or 'NO' to two statements. Where the answer is 'NO', encourage learners to offer each other advice on how to improve their note-taking skills.