

This Unit is the first of the four Units dealing with the outer circle of relationship. “Water” is an issue representative of many man-made issues in contemporary life, such as population growth and global warming. Shortage of water is already a problem in many countries around the world and promises to be an important factor in the future. Awareness about the need to save water therefore also represents the need to reduce, reuse and recycle in our daily lives. This is therefore the environmental Unit of the book and through it students are encouraged to think and talk about environmental issues.

## Page 121

### Brainstorming (Individuals)

- Students think about their water use. They also think about where the water in their taps comes from and where it goes afterwards.

As in the other Units, this reflection activity is setting the learning schema. It is also a consciousness-raising activity, getting students to think about aspects of their lifestyles.

### Task 1: Water Survey (pairs)

- Students A and B collect different data from 5 other students.

This is the first survey in the book and models the sort of social science survey that might be carried out when researching consumer behavior. Students collect the data in this activity and then analyze it in Task 2.

Students in pairs can ask the same 5 people or different people. The results are representative.

The instructions are minimal in this activity (Task 1). It will be interesting to see if students can figure out what to do. They have had 14 Units of reading and understanding the instructions, so they should be able to deduce what is to be done in this task. In fact Student A asks 4 questions to five people and receives feedback in terms of numbers (e.g. “I wash my face 4 times a day”). However, Student B receives feedback in terms of “Yes/No”.

### Task 2: Data Analysis (pairs)

- Students analyze their data.

The analysis of the (very small) data is done in terms of Everybody, Most people, Some people, Almost nobody and Nobody. Students make sentences to describe their results.

## Page 122

### Water Shortage (groups)

- Students talk about the title.
- Teacher: Play the audio CD (Track 51) and ask students to read the three paragraphs silently while they listen.
- Ask students to read the passage again together and discuss any vocabulary or idioms they don't know.

- While they read, students should [match the words and phrases](#) at the bottom of the page.

Third World	a large mass of snow and ice
developed countries	a long period without rain
cut back	countries round the world helping each other
Believe it or not,	countries that are already rich and industrialized
water table	increase in the earth's temperature
glacier	keep in good condition, look after
drought	the level below which the ground contains water
global warming	under-developed countries
groundwater	use less and less
global cooperation	water beneath the earth's surface
maintain	you might find this hard to believe, but ...

This reading passage indicates the severe state of water shortage around the world. It is easy to become depressed by such facts, so it is important for students to think about solutions. As the last sentence of the reading passage points out, wealthy countries need to replace aging water systems and fight water pollution. This is already happening in many countries. However, we can also make a contribution, as suggested in the Water Survey on page 121. Students can feel that they are part of the solution as well as part of the problem.

**Further Reading:** The note at the bottom of the page reminds students about the extra reading passages and other resources on the online site.

## Page 123

### Comprehension Check (pairs or groups)

- Students answer the questions to confirm their comprehension of the reading passage.

Students should by now be able to check their answers with each other.

Answers:

1. WWF means World Wildlife Fund.
2. No. Even developed countries face water shortage.
3. The water shortage is due to climate change and bad water management.
4. No, developed countries do not have plenty of water.
5. A lot of water is wasted in London every day because of old, leaking water pipes.
6. An example of the over-use of water is that 815 lakes disappeared from China's *Thousand-Lake Province* (Hubei).
7. Wars could be fought over water because many countries are suffering drought. Water is now very valuable and hard to find for many countries.
8. Our drinking water comes from groundwater, rivers, and freshwater lakes.
9. World Water Day is March 22.

### Think for Yourself

Students think about water related issues. They might want to look further into these issues for themselves. It will be good to understand the current state of water conservation, plus the concept of “Reduce, Reuse,

Recycle". This would be a good topic for a (speaking) project or an assignment, perhaps showing how it can be a way of life and indeed how it was a way of life for our ancestors.

Suggested answers:

- In my opinion the causes of global warming are greenhouse gases and pollution from cars and factories.
- Global warming and pollution reduces our water supply
- In order to save water, we need to reduce, reuse and recycle water. We also need to stop wasting water. we should manage our water resources.

## Background Information

This information here is about water. In addition to facts about water use, it contains some interesting trivia. Students might be surprised to learn about the unique properties of water.

## Page 124

### Discussion (groups)

- Students read the **Conversation Strategies** at the bottom of the page.
- Then they read and do the instructions.
- Students discuss the questions, using the Conversation Strategies: 'Sharing surprising information' and 'generalizing'.

1. Suggested answers
2. - By and large, I buy bottled water. It is not safe to drink tap water unless you boil it first.  
- As a rule, I drink tap water. I trust the water system.
3. I don't know what I would do if I had no running water. I would have to get water from somewhere. Perhaps I would have to buy bottled water for everything. Believe it or not, many people around the world have no running water. It must be very difficult for them.
4. I do many things each day that require water. For example, washing my face, washing clothes, having a shower, washing my teeth, drinking tea or coffee, and going to the rest room. Of course, I need lots of water when I go swimming!
  - I don't know how much water I need each day. But I know that the average American uses 300 - 375 liters of water every day (page 123).
5. - I think that the government owns the water in rivers and lakes. I think it also owns the water in seas around the country. It doesn't belong to any one person. So the government has to take care of the water. When the river goes into another country, then that country owns the water.  
- I don't think anyone owns the water in rivers, lakes or seas. Not even the government. U think water is free for everyone.
6. - Yes, I think access to water is a human right. No-one should stop us from using water. No-one should make us pay for water. It is there for everyone.  
- No, I don't think access to water is a human right. It is like everything else. You have to earn it. If water is on someone's land, it belongs to that person.
7. - Yes, on the whole, I believe water should be free. We cannot live without water, so we should not have to pay for it. Water falls from the sky on everyone.  
- No, by and large, I don't feel that water should be free. Nothing in life is free. We have to work for it. It is in short supply these days, so we shouldn't just give it away for nothing.

8. "We never know the worth of water till the well is dry." (Thomas Fuller, 1732)
  - Generally, I agree with Thomas Fuller. We don't know how valuable water is until we don't have any. Then we understand that water is life.
  - On the whole, I disagree. I think I understand the worth of water all the time.
9. "Water and air (...) have become global garbage cans." (Jacques Cousteau)
  - By and large, I agree with Jacques Cousteau. The air and the sea have become full of pollution. We just throw things away without thinking. Companies throw chemical waste into the sea. There are huge amounts of plastic waste in the sea. Fish are dying because of all the plastic. As for the air, it has become very polluted. People are having breathing problems. Many people die each year because of breathing disorders.
  - Strangely enough, I don't agree. Everyone thinks that the air and the sea are polluted, but I think things are changing. I think we are gradually cleaning things up. Soon the air will not be polluted and the sea will be clean. I am an optimist.
10. "The frog does not drink up the pond in which he lives." (American Indian proverb)
  - This proverb means that we should not harm the environment that we live in. Otherwise, we will not be able to live at all. Here are some similar proverbs:
  - The best time to plant a tree is twenty years ago; the second-best time is now.
  - It takes many years to grow a tree but a day to cut it down.
  - Earth is not a gift from our parents, it is a loan from our children.
  - Only when the last tree has died and the last river been poisoned and the last fish been caught will we realize we cannot eat money.
  - Earth is dearer than gold.
11. First of all, the government should do more to save water. The government should build more reservoirs. It should start a "Save Water" campaign. It should educate children in school to save water.
  - Companies should save water. They should stop polluting rivers. They should recycle water.
  - We need to stop wasting water. Next we need to be careful with water every day. We need to cut down the amount of water we use.

It can be helpful to ask students to use one conversation strategy phrase every time they speak.

These conversation strategies are particularly relevant to talking about water, since there is a lot of surprising information to share.

Students should be encouraged to think about the ways in which they can contribute to a solution (see page 128). They might feel inadequate, but they should remember that every drop counts. Every small effort is meaningful.

## Page 125

### Dialogue (pairs)

- Students read the instructions.
- They read the dialogue together, checking the vocabulary in the [Key Words and Expressions](#) box.
- The teacher plays Track 52 (CD-Rom).
- Students read the dialog again, changing roles.
- Finally, they answer the questions in the [Dialogue Quiz](#).

Answers:

1. The date of the dialogue is March 21, since tomorrow is World Water Day.
2. Jenny read about World Water Day in a magazine.
3. Ji-hye did not know about World Water Day?
4. They decide to do something to save water.
5. They decide to fix the leaking faucet in the bathroom, take a really short shower and make a list of things they can do.
6. After this dialogue they will show their list to everyone else. Then they will probably fix the leaking faucet and take a really short shower.

As in other Units, the Dialogue can be an inspiration and stimulation to make a mini-drama about the main topic. In this case, students could make a drama about water. It could be for an assignment or a project. Students could perform before everyone, make a video, and post it online.

Also as in other Units, it is not necessary for every student to do every activity. They can be chosen at the teacher's discretion or the students' preference. Teachers might like to focus on different pages in different Units.

## Page 126

### Let's Make a Courtroom Drama! (groups)

- Students in groups of 4 or 5 make a mock trial.
- They check out the courtroom language on this page and make notes on the next page.
- They might like to watch the trailer for the movie "Erin Brockovich" on YouTube: <https://www.youtube.com/watch?v=9TjEklyF7-E>.

Courtroom Drama Objectives: To promote increased confidence, poise, oral skills, critical thinking skills and teamwork skills, plus increased proficiency in basic skills such as reading, writing, speaking, analyzing and reasoning, and interpersonal skills such as listening and cooperating. ([www.classroomlaw.org](http://www.classroomlaw.org))

This activity combines elements of role-plays and debates. Students have had practice in both of these types of oral performance in Units 1 to 14, so they should be ready to take on a more challenging format. They need a judge, a prosecuting team and a defending team. These are similar roles to the debates in Units 7, 8, 10, 12 and 14.

There are many technical terms and courtroom phrases that can be used in this activity. These are too numerous to mention in this Unit (though some suggestions are offered on this page), so teachers who want to provide more vocabulary and courtroom phrases, might wish to look at online "Mock Trial" sites. A google search for "mock trials", "Courtroom vocabulary" or "Courtroom language" will come up with useful sites such as:

<https://sites.google.com/a/wcsga.net/mock-trial/learning-court-vocabulary> (courtroom vocabulary),

<http://www.uscourts.gov/glossary> (legal terms)

[http://nvcourts.gov/AOC/Programs\\_and\\_Services/Court\\_Interpreter/For\\_Public/Common\\_Courtroom\\_Phrases/](http://nvcourts.gov/AOC/Programs_and_Services/Court_Interpreter/For_Public/Common_Courtroom_Phrases/) (courtroom phrases).

However, it is not necessary for students to be advanced learners or in law school. Every level of EFL student can benefit from (and enjoy) the mock trial format. Teachers should therefore match their expectations to

the level of the students, giving them the appropriate amount of vocabulary and the appropriate number of courtroom phrases.

There are also lots of “mock Trial” videos on [www.youtube.com](http://www.youtube.com). It could be helpful to show some of these to the students, or ask them to watch them at home.

Finally, this activity is a great way of challenging and extending students who have experienced the role-play and debate formats. If they enjoy watching mock trial videos and learning courtroom language, it can be an exciting way of learning and using oral English.

If appropriate, the teacher might like to set up a mock trial for the whole class. In this case those who are watching the proceedings can be the jury and vote on the result - guilty as charged, or not guilty.

## Page 127

### The Trial (groups)

- Students make notes for their mock trial.
- They perform the trial.

Students make notes based on the phrases on the previous page and on their knowledge of trial procedures. The mock trials on YouTube can be very helpful for this. Students can watch them at home and make notes of the phrases used by people in their chosen roles (prosecutor, witness, defendant, judge, etc.).

Students should enjoy this activity and there should not be too much emphasis on correctness. Students should use the language they are comfortable with. However, the formal language in this activity is a good discipline for the students to learn, since much of academic and business English is quite formal - often more formal than students realize. Therefore a structure for the trial is offered on this page.

Here is a sample trial. If the students (and the teacher) wish(es), they could try performing this (they could just read it together as in Reader’s Theatre) or use it as a model. However, they should also try to make their own trial. There is a jury in this sample. Perhaps this could be the teacher or other students:

**Judge:** The trial of the XYZ company is now in session. The company is accused of storing poisonous chemical waste on its land. First, ladies and gentlemen of the jury. Please take the jurors’ oath.

**Jury:** I swear [by almighty God/by Allah/by Waheguru/on the Gita] that I will faithfully try the defendant and give a true verdict according to the evidence.

**Judge:** Defending team. How does your client plead?

**Defending team (Lawyer):** The XYZ company pleads not guilty.

**Judge:** Prosecuting team. Please give your opening statement.

**Prosecuting team:** Thank you my lord. We claim that the chemical waste has got into the local water supply. Families living nearby are suffering from poisoning, cancer and other diseases. We demand full compensation for all the families.

**Judge:** Defending team. Please give your opening statement.

**D lawyer:** Thank you, your honor. Our clients deny everything. They say the waste chemicals were properly stored. None of it got into the water supply.

**Judge:** Prosecuting team. Please call your first witness.

**P team:** Thank you my lord. If it pleases the court, we call Ms. Mercury to the stand. Ms. Mercury, do you swear to tell the truth, the whole truth, and nothing but the truth, so help you God?

**Witness:** Yes, I swear that the evidence that I shall give, shall be the truth, the whole truth and nothing but the truth, so help me God.

**P team:** Please tell us your evidence.

**Witness:** I collected water from the land around the company's factory. I sent the water to be analyzed. It contains lots of poisonous chemicals. These chemicals cause cancer and other illnesses. The people living around the factory have cancer and all the other illnesses.

**D lawyer:** I object, your honor. That is not true. There is no proof that these chemicals cause cancer.

**Judge:** Objection overruled. please continue, Prosecuting team.

**P team:** And what did you do next, Ms. Mercury?

**Witness:** I contacted the XYZ company and showed them the results.

**P team:** And what did they say?

**Witness:** They told me to get lost.

**D lawyer:** Objection, your honor. There is no record of Ms. Mercury visiting the company.

**Judge:** Objection overruled. please continue, Prosecuting team.

**P team:** I have no further questions, your honor.

**Judge:** Defense team. Defense team. You may cross examine the witness.

**D lawyer:** Thank you, your honor. Ms. Mercury, I remind you that you are still under oath. Isn't it true that you asked for a million dollars to keep quiet?

**P team:** Objection!

**Judge:** Objection sustained.

**D lawyer:** Let me rephrase the question. Isn't it true that you are making a lot of money from this case?

**Witness:** Not at all. I am here to help the people living round the factory.

**D lawyer:** Really? Then why did you ask them for 30% of the money?

**Witness:** That's the deal. If we win, my firm gets 30%. If we lose, my firm gets nothing.

**D lawyer:** So you are in it for the money.

**Witness:** We have our costs, just like you. How much are you getting?

**D lawyer:** No further questions, your honor.

**Judge:** You may step down, Ms. Mercury. Defendant, please take the stand. Do you swear to tell the truth, the whole truth, and nothing but the truth, so help you God?

**Defendant:** Yes, I swear that the evidence that I shall give, shall be the truth, the whole truth and nothing but the truth, so help me God.

**D lawyer:** What do you have to say?

**Defendant:** We followed the waste laws. We did everything we could.

**D lawyer:** Anything else?

**Defendant:** There is no proof that we caused cancer in these people.

**D lawyer:** No further questions.

**Judge:** Prosecuting team. You may cross examine the defendant.

**P team:** Thank you, your honor. I present this letter to the court as exhibit A. *(To the defendant)* Let me call your attention to this letter. Do you recognize it?

**Defendant:** I've never seen it before in my life.

**P team:** I think you have. Let me remind you that you are still under oath.

**Defendant:** You can't prove anything.

**P team:** This letter was written by you to the head office in New York. Let me read from it: "It seems that our waste chemicals have got into the groundwater and are causing cancer in the people living round here. We have to do something."

**Defendant:** That's rubbish. How did you get that letter?

**P team:** That's none of your business. The prosecution rests.

**Judge:** (*To the defendant*) You may take your seat. Prosecuting team, please make your closing statement.

**P team:** Thank you, your honor. It is obvious that the XYZ company knew about the waste and the cancer all the time. They tried to cover it up. They also tried to bribe the witness to keep quiet. I ask for the maximum fine.

**Judge:** Defense team, please make your closing statement.

**D lawyer:** Your honor, this is all circumstantial evidence. There is no proof. My client is innocent.

**Judge:** Jury. Please consider your verdict.

**Jury:** We have come to a decision, your honor.

**Judge:** Do you find the defendant guilty or not guilty?

**Jury:** Guilty.

**Judge:** Will the defendant please rise. (*Pause*) Do you have anything to say?

**Defendant:** My company accepts the verdict. We are very sorry that people have suffered. However, we didn't know that the waste was so dangerous.

**Judge:** You have been found guilty of poisoning the water around your factory and causing cancer and the illnesses in the people around the factory. I order you to pay 2 million dollars to every person living within 1 mile of your factory. I declare that the court is now closed.

## Page 128

### Tips for Saving Water (Pairs)

- Some tips are offered for saving water.

Students can look at these at any time. They are referred to on page 124 (Discussion, Question 10) and are important in that they show students how they can make a contribution to alleviating the water problem. The significance of these tips lies in the awareness raising that they can promote. Their relevance to the students is also that they showing not only that there is hope, despite the urgency of the issue, but also that the students can be part of the solution. This is an important message when discussing all the current environmental issues such as pollution, global warming and overpopulation.

### The Bridges of Königsberg

- This is another thought-provoking puzzle.

This puzzle is an authentic one and was tackled by Leonhard Euler in the 18th century. This led to graph theory and prefigured topology. Students should enjoy trying to find a solution, putting themselves in the places of the citizens. If they do a google search for "the bridges of Königsberg" they will find lots of interesting facts about this problem.