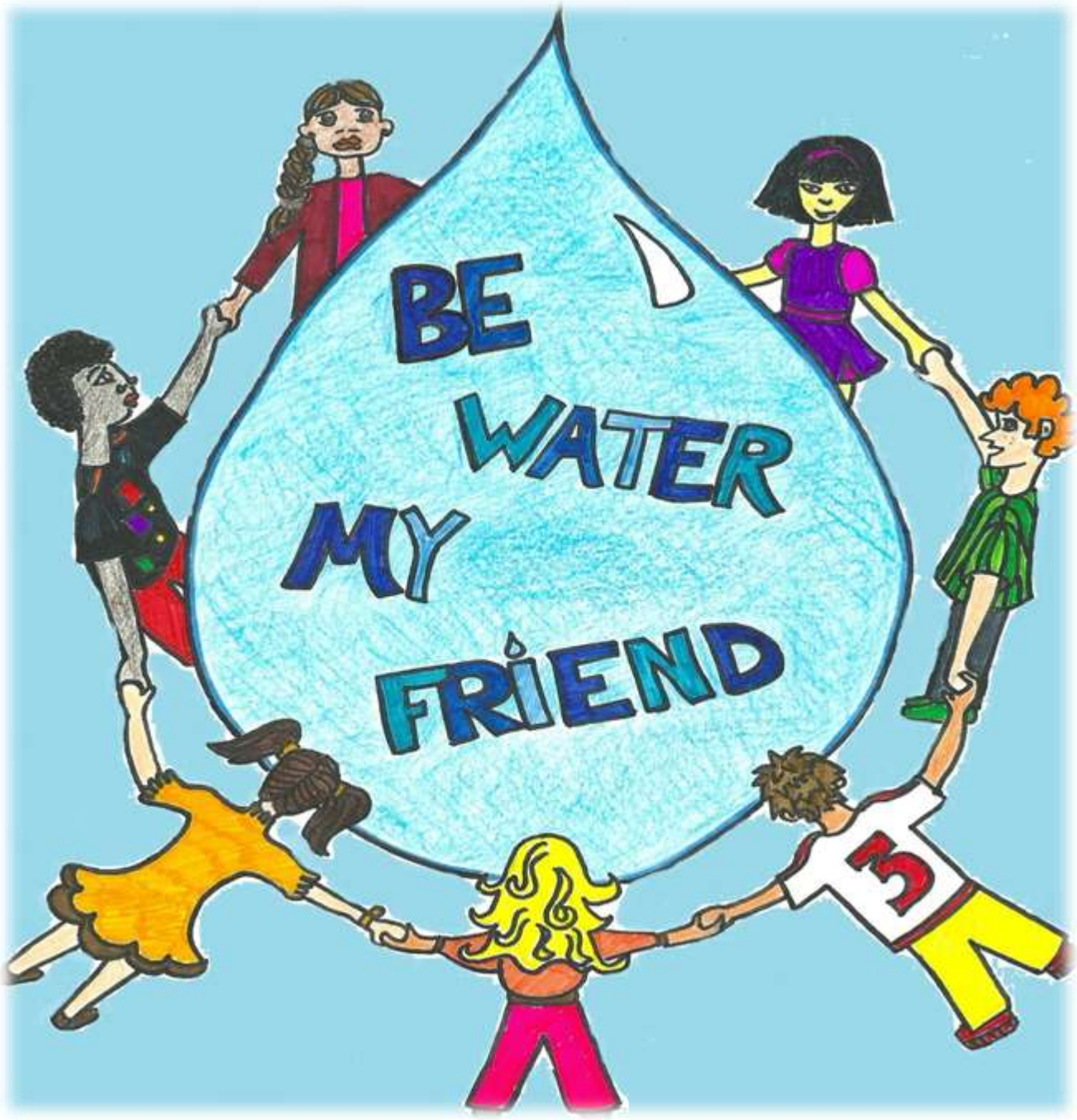

Tatiana Medina & Núria Serra

UAB tutor: Cristina Escobar
Mentors: Miquel Mas & María Jesús Pelegrina

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UAB

Teacher's Book

TED Master's Degree,2011

Acknowledgements

This teaching unit would not have been possible without the precious help of our UAB tutor, Cristina Escobar and our mentors at Institut Sabadell, Miquel Mas and María Jesús Pelegrina, whose support and words of wisdom have been essential for the development and implementation of this unit.

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A very special thanks goes to all the teachers and staff at Institut Sabadell – especially Elisabeth Eixarch, Montse Jiménez, Carles Moltó and Zigor Rodríguez - for their unconditional willingness to help.

TABLE OF CONTENTS

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CLIL PLANNING TEMPLATE

TITLE: BE WATER MY FRIEND

AUTHORS: Tatiana Medina and Núria Serra

CLASS/AGE: Recommended to students from 11 to 13 years old

SUBJECTS INVOLVED: Science and English

NUMBER OF SESSIONS: 9

COE LEVEL: Recommended for A1

INTRODUCTION TO THE UNIT

In this unit we will learn different aspects about water. We will study how water is distributed on Earth, what its properties are and how water travels (water cycle). In addition to this, we will become aware of the importance of being green by learning how to save water and avoid its pollution.

MAIN GOALS AND COMPETENCES

By the end of this unit, students will be able to...

- appreciate the importance of water for living beings
- describe the hydrosphere composition: salt water vs. fresh water
- recognize the water properties
- calculate the density of liquid and solid substances
- describe the water cycle
- justify the importance of not wasting water and give tips to avoid it
- identify the causes of water pollution and the water treatment process
- give tips to prevent water pollution

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CLIL~SI

DOMAIN OR TOPIC-RELATED CONTENTS

MAIN TARGET KNOWLEDGE

- Hydrosphere composition
- Water properties
- Water cycle
- Ways of saving water
- Causes of water pollution

DOMAIN OR TOPIC-RELATED CONTENTS

MAIN TARGET SKILLS

- Giving pieces of advice on how to conserve water and avoid its pollution
- Establishing cause-effect relationships between theory and practice (lab experiments)
- Calculating density
- Understanding and producing short texts (descriptive and explanatory)

CONTENT OBLIGATORY/CONTENT COMPATIBLE LANGUAGE

DISCOURSE GENRE or TEXT TYPE

TO UNDERSTAND

- Explanatory text on the hydrosphere
- Explanatory text on saving water
- Explanatory videos on saving water, water pollution and the water cycle.
- Instructions
- Mathematical process and operations
- Definitions of bodies of salt and fresh water

TO GENERATE

- Lab report on density
- Lab report on water treatment
- Mathematical operations

TERMINOLOGY

DOMAIN OR TOPIC SPECIFIC

- Hydrosphere, fresh water, salt water, swamp, stream, river, lake, ocean, sea, groundwater, glacier, cohesion, adhesion, density, climate moderator, solvency, dilation, solid, liquid, gas, evaporation, evapotranspiration, condensation, precipitation, surface run-off, infiltration, discharge, save, pollution, water treatment plant.

GENERAL ACADEMIC

- We should/ shouldn't...
- I can see...
- The video/text talks about...

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- Tips poster: do's and don'ts in saving water
- Explanatory text: oral presentation poster
- Definitions of salt and fresh water bodies
- Oral explanations of specific texts

- What's the meaning of...?
- How do you say "X" in English?
- Can you repeat, please?
- I don't understand
- I agree/ I don't agree
- I think...

PRAGMATIC STRATEGIES

- Turn-Taking
- Using non-verbal communication
- Face-saving (bald-on record, positive politeness)

SOCIO & CULTURAL VALUES and PERSONAL & EMOTIONAL DEVELOPMENT

SOCIAL&CULTURAL VALUES:

- Drawing the attention to the dangers of wasting and polluting water
- Highlighting the importance of water in our world
- Working collaboratively

PERSONAL&EMOTIONAL DEVELOPMENT:

- Lowering the anxiety in formal oral presentations
- Working cooperatively: negotiating, organizing and taking decisions

SUMMATIVE ASSESSMENT

TASK

- **Participation and Attitude**
  - Group work
  - Class work

SUMMATIVE ASSESSMENT

ASSESSMENT CRITERIA or ASSESSMENT MATERIALS

- **Participation and Attitude (15%)**
  - Self-assessment rubric (3%)

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- **Homework**
  - Video recorded experiment
  - Cool Water Cartoon
- **Glogsters**
  - Glogster 1: Oral presentation
  - Glogster 2: How to save water and avoid its pollution
- **Oral presentation**
- **Final test**

- Peer-assessment rubric (5%)
- Teacher's-assessment rubric based on teacher's chart on students' daily performance (7%)

- **Homework (15%)**
  - Experiment→ Checklist (8%)
  - Cool water cartoon→ Rubric (7%)
- **Glogsters (20%)**
  - Glogster 1→ Checklist (10%)
  - Glogster 2→ Checklist (10%)
- **Oral presentation (20%)** → Rubric
- **Final test (30%)**→Test criteria

MATERIALS AND RESOURCES

- Projector, computer, digital board, whiteboard, Internet connection, loudspeakers, science lab, Microsoft Office PowerPoint, Microsoft Office Word, yes/no cards, wall posters, youtube.com, prezi.com, wordle.net, Moodle, Glogster.com, pikistrips.com, voki.com, some sand, gravel, salt, cotton, plastic bottles, spoons, eggs, marbles, corks, fresh water, dirty water (mixed with rocks fragments, leaves, some plastic, small branches...)

CREDITS

- Oral presentation rubric from www. rubistar.4teachers.org
- Student's book fonts from www.dafont.com

ACKNOWLEDGEMENTS

- A special mention to our mentors, Miquel Mas and María Jesús Pelegrina, and to our tutor, Cristina Escobar.

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REFERENCES

- See annex 1

COMMENTS

- This is a CLIL unit that deals with the Science Curriculum Content.
- This teaching unit has been implemented in a school under a 1x1 project. That means, students always had access to their own laptops and Internet connection.
- On the first session the teacher should introduce the main topic of the unit, its main goals and how students will be assessed.
- Some activities have been designed to address the diversity existing in secondary education .
- This teaching unit focuses on cooperative learning. That is why most of the activities are designed as pair or group work. It is recommended to arrange the class into groups of four.

THE KEY COMPETENCES IN THE UNIT

According to current curriculum for secondary education in Catalonia Decret 143/2007 DOGC num. 4915)

COMMUNICATION IN THE MOTHER TONGUE AND FOREIGN LANGUAGES

Linguistic and audiovisual communication

- Producing oral, written and audiovisual interactions
- Comprehending oral ,written and audiovisual texts
- Describing, explaining and justifying facts
- Presenting a topic orally in public

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<u>Cultural and artistic competence</u>

- Creating a poster and using it as visual support for an oral presentation

MATHEMATICAL COMPETENCES AND BASIC COMPETENCES IN SCIENCE AND TECHNOLOGY

- Using units of measurement: mass and volume
- Deduction and interpretation of the mathematical model for density

DIGITAL COMPETENCE

- Using ICT's and media

LEARNING TO LEARN

- The fostering of cooperative learning
- Scanning and skimming for information
- Developing abilities to lower the anxiety during oral presentations

SENSE OF INITIATIVE AND ENTREPRENEURSHIP

- Scanning and skimming for information
- Working cooperatively: negotiating, organizing and taking decisions
- Develop abilities to lower the anxiety in oral presentations
- Present a topic orally in public

SOCIAL AND CIVIC COMPETENCE

- Knowing the dangers of wasting and polluting water
- Knowing the importance of water in our world
- Working collaboratively

ICON AND FONT KEY

ICON KEY


READING


LISTENING

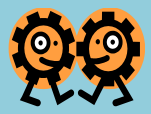

WRITING


SPEAKING


EXPERIMENT


ICT


VIDEO


PAIR WORK

INDIVIDUAL WORK


GROUP WORK (4 members)


LANGUAGE TIP


USEFUL VOCABULARY

FONT KEY

Bold and blue	words included in the glossary
Bold and italics	examples

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LESSON-BY-LESSON

OVERVIEW

Session	Activities	Timing	Interaction	Skills	ICT	Assessed	Comments
1 "What do we use water for?"	Presentation of the unit	15'	T-SS		X		Introduction of the topic, class routine and form of assessment.
	Elicitation activity: When do we use water?	15'	-- SS-SS		X	X	
	What happens if there is no water in the world? + Conclusion	15'	SS-SS T-SS		X	X	
	Closing activity: What have I learnt today?	5'	--				
2 "Where is water on Earth?"	Warm-up: What did we learn yesterday?	5'	T-SS			X	
	Intro: Presentation	10'	T-SS		X		
	Main activities	35'	S-S		X	X	
	Closing activity: What have I learnt today?	5'	--				
3 "Where is water on Earth II?"	Warm-up: What did we learn yesterday?	5'	T-SS			X	
	Main activities	45'	SS-SS			X	
	Closing activity: What have I learnt today?	5'	--				
4	Warm-up: What did we learn yesterday?	5'	T-SS			X	

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Water Properties	Intro: Presentation	15'	T-SS		X		
	Main activities	30'	S-S SS-SS --			X	
	Closing activity: What have I learnt today?	5'	--				
5 At the lab: Sink or Swim?	Warm-up: What did we learn yesterday?	5'	T-SS			X	
	Intro and Hypothesis	10'	T-SS			X	
	Experiment and worksheet	30'	SS-SS			X	
	Conclusions	10'	T-SS			X	
6 The Water Cycle	Warm-up: What did we learn yesterday?	5'	T-SS			X	
	Main activities	40'	SS-SS SS-CLASS		X	X	
	Closing activity: What have I learnt today?	10'	--				
	Homework: Cool water cartoon		--		X	X	
7 Saving water	Warm-up: What did we learn yesterday?	5'	T-SS			X	
	Intro: Video and Presentation	10'	T-SS		X	X	
	Main activities	40'	-- SS-SS			X	
	Closing activity: What have I learnt today?	5'	--				

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8 Water pollution	Warm-up: What did you learn yesterday?	5'	T-SS			X	
	Intro: Presentation	10'	T-SS		X	X	
	Main activities	35'	S-S SS-SS		X	X	
	Closing activity: What have I learnt today?	5'	--				
	Homework: finishing the last activity (Glogster)				X	X	
9 At the lab: Cleaning Water	Warm-up: What did you learn yesterday?	5'	T-SS			X	
	Intro and hypothesis	10'	T-SS S-S			X	
	Experiment and worksheet	30'	SS-SS			X	
	Conclusions	10'	SS-T			X	
10 Let's get ready	Main activity	55'	S-S		X	X	
	Homework: finishing preparing the oral presentation		S-S		X		
11 Oral Presentations	Main activity	60'	SS-SS		X	X	
12	Final test	45'	--			X	

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Final test And Feedback	Self and peer assessment	10'	--			X	
	Unit feedback	5'	--				

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Session 1

Resources :	* Digital board * Projector * Computer * MS Office.
Materials:	* Yes/no cards * Wall posters * Student's book * Science in English power point presentation (see CD-ROM; Presentations Folder)
Assessment:	* Participation: rubric and daily performance chart (see CD-ROM: Assessment folder)

Intro: Presentation of the unit	
Description and instructions:	Introduction of the topic, class routine and forms of assessment. Follow the guidelines in the box below. As this is a unit based on cooperative learning you should arrange the class in groups of four people. It is advisable that the teacher creates the groups taking into account the weaknesses and strengths of the pupils. Students with different levels should join together.
Materials:	* 'Science in English' power point presentation (slides 1 to 5)
Assessment:	---
Skills Addressed:	
Interaction:	T-SS
Grouping:	---
Timing:	15'
Answer Key:	---

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Guidelines for the power point presentation:

SLIDE 1: Cover. If it is the first time students have been part of a CLIL project, we need to explain to them how it works.

SLIDE 2: Before having a student to read the comic aloud, ask students to look at the images and tell you what they think they are going to study/learn.

SLIDE 3: Tell students what you expect from them and how you are going to assess them.

SLIDE 4: Present the different materials they are going to use:

* The student's book. Show students their book, explain them the font key and icon key so that they know there are different types of exercises and ways to work (individually, in pairs and in groups). Show them that at the end of the book they will find a glossary with the words highlighted in blue and bold.
* The Yes/No cards are an easy and quick way to know if the students are following the class and they understand you. Ask them to raise their cards from time to time (see page ??).
* The wall cards hanging around the class are aimed at helping students to make questions in case they have doubts.

SLIDE 5: Tell your students enthusiastically that it is time to start.

Activity 1.1

Description and instructions:	Let students have a look at slide 6 from the Science in English presentation so that they have an idea. Then, ask them when we use water and what for. After that, have your students doing exercises a and b individually. When correcting exercise b make your students realize that we need water for every activity. For example, if there was no water, apples could not grow. Once activities a and b are corrected, students could think of more uses we give to water. Ask them to do exercise c and use the language tips.
Materials:	* 'Science in English' power point presentation (slide 6) * Student's book pages 8-9

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Assessment:	* Participation: rubric and daily performance chart
Skills Addressed:	
Interaction:	T-SS, ---
Grouping:	 (1.1 a, b)  (1.1 c)
Timing:	20'
Answer Key:	1.1 A)  Brush your teeth  Wash your clothes  Do the washing-up  Clean the house  Drink water  Water the plants 1.1 B) We need water for all the actions mentioned in the activity so no circles should be made. 1.1 C) **Possible answers:** We use water to swim We use water to grow vegetables We use water to wash the car We use water to live

Activity 1.2

Description and instructions:	Now that students know when we use water, ask them to imagine a world without water and tell you the consequences. Let them tell you a few examples and add them to the slide 7 in the power point presentation. Then, have them to work in groups sharing their ideas and writing them down. Use the language structures contained in the language tips as they are suitable for the students' level.

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	Once the exercise has been corrected, draw students' attention to the importance of water since we all need it to live (slide 8).
Materials:	* 'Science in English' power point presentation (slides 7 and 8) * Student's book page 9
Assessment:	* Participation and attitude: rubric and daily performance chart
Skills Addressed:	
Interaction:	T-SS, S-S
Grouping:	
Timing:	10'
Answer Key:	**Possible answers:** Without water, we can't wash our clothes Without water, we can't wash our cars If there is no water, people can't swim If there is no water, people can die If there is no water, animals can't live If there is no water, vegetables can't grow Without water, we can't water the plants

Activity 1.3

Description and instructions:	After every lesson, students have to complete this bubble speech in which they jot down what they have learnt during the session.
Materials:	* Student's book page 10
Assessment:	---
Skills Addressed:	
Interaction:	---
Grouping:	
Timing:	5'
Answer Key:	The answer will depend on the student though it should include information such as uses of water and its importance.

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Session 2

Resources:	* Computer * Projector * Digital board * Whiteboard * Marker * Prezi.com * Memory Game Maker 3.1 * Internet connection
Materials:	* Prezi presentation * Student's book * Taboo cards (see CD-ROM: Materials' folder) * Taboo help-cards (see CD-ROM: Materials' folder) * Memory game (see CD-ROM: Materials folder)
Assessment:	* Participation and attitude: rubric and daily performance chart (see CD-ROM: Assessment folder)

Warm-up Activity

Description and instructions:	At the beginning of every lesson, take five minutes to ask students what they remember about the previous session.
Materials:	* Student's book page 12
Assessment:	* Participation and attitude: rubric and daily performance chart
Skills Addressed:	
Interaction:	T-SS
Grouping:	
Timing:	5'
Answer Key:	The answer will depend on the student though it should include information such as uses of water and its importance.

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Intro: Presentation	
Description and instructions:	Before playing the prezi presentation try to elicit some information from students by asking them where we can find water in the world. Then, visit the following link http://prezi.com/avvrojuwsox4/the-hydrosphere/ and explain how water is distributed on Earth (see the box below). In case, the prezi cannot be used a power point presentation has been created. The teacher should ask students to raise their yes/no cards from time to time so that he/she can make sure they follow his/her explanations.
Materials:	* Prezi presentation http://prezi.com/avvrojuwsox4/the-hydrosphere/ * The Hydrosphere power point presentation
Assessment:	---
Skills Addressed:	
Interaction:	T-SS
Grouping:	---
Timing:	10'
Answer Key:	---

Guidelines for the prezi presentation:

SLIDE 1: The Earth is 70% water and 30% land. All the water in the world is called the hydrosphere.

SLIDE 2: The hydrosphere can be found in three different states: solid, liquid and gas. Some examples of solid water are ice and glaciers. Some examples of liquid water are the rain and drinkable water. Lastly, an example of gas water is clouds.

SLIDE 3: There are two types of water: fresh water and salt water. *Ask your students if they know the difference and if they can give you an example of both types*. Salt water represents a 97% of water in the world whereas fresh water is only a 3%. We can find salt water in oceans and seas. We can find fresh water in glaciers, surface water, groundwater and in the atmosphere and living beings. *Make sure they understand what living beings are.* Some examples of surface water are rivers, lakes, swamps and streams.

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SLIDE 4: An ocean or a sea is a big body of salt water.

SLIDE 5:

* A glacier is big persistent body of ice. *Make sure they understand what persistent means.*
* Groundwater is the water located beneath the ground. *A drawing on the whiteboard could be useful to help students understand the meaning of 'beneath the ground'.*
* Surface water is all the water that is above the ground. *You could use the same drawing to explain the difference between surface water and groundwater.*
* Atmosphere and living beings. We can find water in the atmosphere. For example, there is water in the air although we cannot see it. An example of visible water in the atmosphere are the clouds. Living beings have water inside. Our bodies are 70% water, that is why it is important to drink water. We need to regain the water we lose when we sweat, we go to the toilet or we cry.

SLIDE 6: Let's define the four examples of fresh water.

* A river is a permanent water course. That means water is always flowing, from January to December.
* A stream is a small water course fed by rain. It is like a small river that only flows when it rains. If it doesn't rain, there is no water flowing.
* A lake is a body of water surrounded by land.
* A swamp is an area where the ground is inundated all year round. *A drawing could be done to explain the concept.*

Activity 2.1	
Description and instructions:	Ask students to match the words with the correct definition. An example is given. Read the example together and elicit the next answer. Then have students to work individually.
Materials:	* Student's book page 12
Assessment:	---
Skills Addressed:	

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Interaction:	---
Grouping:	
Timing:	10'
Answer Key:	River →Permanent water course Stream→ small water course fed by rain Lake →Body of water surrounded by land Glacier→ Big persistent body of ice Swamp→ Inundated ground Groundwater→ Water located beneath the ground surface Ocean→ Body of salt water that covers 70% of the Earth's surface

Activity 2.2	
Description and instructions:	Ask students to turn on their computers and go to Moodle or any other place where you have uploaded the file (see CD...) . There they will find an interactive card game in which there are six pairs of cards laid face down and two cards are flipped face up over each turn. The object of the game is to turn over pairs of matching cards (a picture and its definition).
Materials:	* Memory game * Computer
Assessment:	---
Skills Addressed:	
Interaction:	---
Grouping:	
Timing:	10'
Answer Key:	 →Permanent water course  → Small water course fed by rain

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→Body of water surrounded by land


→ Big persistent body of ice

→ Inundated ground

→ Big body of salt water

Activity 2.3

Description and instructions:	Ask students to meet in pairs and give each pair a set of seven taboo cards. This is a word guessing game in which a student has to define the word written in the card without using that word and the other student has to guess the word. Then, they swap roles. A set of adapted cards have been designed in case some students have difficulties. These cards have four possible definitions but only two of them are correct. They should be able to identify the right ones and tell them to the other student.
Materials:	* Taboo cards * Taboo help-cards
Assessment:	* Participation and attitude: rubric and daily performance chart
Skills Addressed:	
Interaction:	S-S
Grouping:	
Timing:	15'
Answer Key:	**Students should say something similar to the following definitions:** River →Permanent water course Stream→ small water course fed by rain Lake →Body of water surrounded by land Glacier→ Big persistent body of ice Swamp→ Inundated ground Groundwater→ Water located beneath the ground surface

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	Ocean→ Body of salt water that covers 70% of the Earth's surface

Activity 2.4	
Description and instructions:	Have your students to complete this bubble speech in which they jot down what they have learnt during the session.
Materials:	* Student's book page 14
Assessment:	---
Skills Addressed:	
Interaction:	---
Grouping:	
Timing:	5'
Answer Key:	The answer will depend on the student though it should include information such as types of water, examples of fresh and salt water, some definitions ...

Session 3

Resources:	* White board * Marker * Prize (i.e. chocolate coins) * Assistant teacher
Materials:	* Jigsaw texts (see CD-ROM: Materials' folder) * Separate answer sheet (see CD-ROM: Materials' folder)
Assessment:	* Participation and attitude: rubric and daily performance chart (see CD-ROM: Assessment folder)

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Warm-up Activity

Description and instructions:	Take five minutes to ask students what they remember about the previous session.
Materials:	* Student's book page 15
Assessment:	* Participation and attitude: rubric and daily performance chart
Skills Addressed:	
Interaction:	T-SS
Grouping:	
Timing:	5'
Answer Key:	The answer will depend on the student though it should include information such as types of water, examples of fresh and salt water, and some definitions of water bodies.

Activity 3.1

Description and instructions:	Tell students you are going to play a game in which they will have to learn lots of things and then explain them to their group-mates. The group that learns the most will have a prize. Detailed instructions: 1. As students are already sitting in groups of four hand out a different text for every member of the group. 2. Every text has a character in the top left corner. Students with the same character join in groups of four. 3. Once they are sitting, remove two texts from every group. That will force them to cooperate. They have to read together and help each other to understand the text. Also, they have to memorize the information because later they will have to tell it to their mates without looking at the text. Ask your students to rehearse the explanation. 4. Once they have finished, ask them to hand in the text, go back to their base groups and share the information. While they are sharing the information let them know that the final punctuation of the group will not be a sum of every member's punctuation but an average. That way, they would be more willing to help each other. 5. After that, they have to answer the quiz individually. Give them a separate answer sheet. 6. Once they have handed in the answer sheet, project the correct answer and tell them to write it down in the quiz they have in the dossier. While they are doing it, you (and your assistant teacher) can correct the quizzes and find out who the winners

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	are. 7. Finally, communicate the results
Materials:	* Student's book page 15-16 * Jigsaw texts * Separate answer sheet
Assessment:	* Participation and attitude: rubric and daily performance chart
Skills Addressed:	
Interaction:	S-S
Grouping:	
Timing:	45'
Answer Key:	Quiz: 1. C 2. A 3. B 4. A 5. A 6. B 7. A 8. C

Activity 3.2

Description and instructions:	Have your students to complete this bubble speech in which they jot down what they have learnt during the session.
Materials:	* Student's book page 17
Assessment:	---
Skills Addressed:	
Interaction:	---
Grouping:	
Timing:	5'
Answer Key:	The answer will depend on the student but it should include information such as the biggest lake, river or ocean in the world, where we can find glaciers, what glaciers are, the name of some oceans, rivers, lakes, islands...

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Session 4

Resources:	* Computer * Projector * Digital board * MS Office * Video player * White board * Marker
Materials:	* 'Water properties' power point presentation (see CD-ROM: Presentations' folder) * Student's book * Solvency video (See CD-ROM: Materials folder) * Running dictation sheets (See CD-ROM: Materials' folder) * Calculator
Assessment:	* Participation and attitude: rubrics and daily performance chart (see CD-ROM: Assessment folder)

Warm-up Activity	
Description and instructions:	Take five minutes to ask students what they remember about the previous session.
Materials:	* Student's book page18
Assessment:	* Participation and attitude: rubric and daily performance chart
Skills Addressed:	
Interaction:	T-SS
Grouping:	

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Timing:	5'
Answer Key:	The answer will depend on the student though it should include information such as the biggest lake, river or ocean in the world, where we can find glaciers, what glaciers are, the name of some oceans, rivers, lakes, islands...

INTRO: PRESENTATION

Description and instructions:	Tell your students you are going to learn about water characteristics and properties. Then, show the 'Water properties' power point presentation. They teacher should ask students to raise their yes/no cards from time to time so that he/she can make sure they follow his/her explanations.
Materials:	* 'Water properties' power point presentation * 'Solvency' video
Assessment:	--
Skills Addressed:	
Interaction:	T-SS
Grouping:	--
Timing:	10'
Answer Key:	--

Guidelines for the power point presentation:

SLIDE 1: Water is made up of two molecules of oxygen and one molecule of hydrogen. *You could point at the drawing while you explain it.*

SLIDE 2: One of the water properties is solvency. Water can dissolve many components. We are going to watch a video that it will show us what solvency exactly is. *Play the video. If the link in the presentation does not work, open the file in a video player.*

SLIDE 3: Another property of water is its climate moderator ability. Water can moderate the Earth's climate, the temperature. Let's have a look at these drawings. *Ask the students to tell you what they can see in the first drawing.* . In the first drawing, we could say it is summer time. The temperature outside it is higher than that of water so water absorbs heat and the temperature outside is reduced. As a result, water temperature increases.

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Point at the drawing while explaining. Now, let's see what happens in winter. *Ask the students to tell you.* In the second drawing, it is winter.

The temperature outside is lower than that of water so water emits heat and the temperature outside is increased. As a result, water temperature decreases. *Point at the drawing while explaining.* The cities next to the sea have milder temperatures. This is because water moderates the temperature.

SLIDE 4: Another property of water is cohesion. Cohesion means that water is attracted to water. Thanks to cohesion, water can transport nutrients to the leaves in plants. *Point at the drawing while explaining. You can also draw two drops that stick together forming an only drop and ask your students why that happens.* Another property of water is adhesion. Adhesion means that water is attracted to other materials as well. Thanks to adhesion, water can make things wet. *Make sure students understand the word 'wet'.* For example, if I throw you a glass of water, what happens to your clothes? They get wet, but how? Water infiltrates in the fabrics, it doesn't go through because water is attracted to the fabrics.

SLIDE 5: Another property of water is its anomalous dilation. When water freezes, it gets bigger. Let's have a look at the pictures. In picture one, we can see a half-full bottle of water. Can you see the arrow that shows the level of water? *Point at the picture while explaining*. Now, we introduce the water in the freezer and after a few hours we can see than the water level has increased. That is due to the anomalous dilation.

Activity 4.1	
Description and instructions:	Ask students to meet in pairs and do exercise 4.1 on page 19. Identify the first property all together so that they know how to do it. Tell your students that some properties can be used more than once.
Materials:	* Student's book page 19
Assessment:	* Participation and attitude: rubric and daily performance chart
Skills Addressed:	
Interaction:	S-S
Grouping:	
Timing:	10'

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Answer Key:	1. Solvency 2. Adhesion 3. Climate moderator 4. Cohesion 5. Anomalous dilation 6. Cohesion 7. Climate moderator

Activity 4.2 a)

Description and instructions:	Hang two copies of the running dictation sheet around the class. Then, students, who are already in groups of four, choose a different number from 1 to 4. Then you call out a number and the student with the same number will have to stand up, run to the nearest sheet of paper, read a sentence, run back to the group and tell his/her classmates the sentence. The rest of students have to fill in the gaps they will find in exercise 4.2 a) on page 20 from the student's book. Tell students they can go back to read the sentence more than once if they need to. Make sure students understand that every time they stand up and run, they have to read a different sentence. Every sentence in their student's book matches a sentence from the running dictation sheet.
Materials:	* Running dictation sheets * Student's book page 19-20
Assessment:	* Participation and attitude: rubric and daily performance chart
Skills Addressed:	
Interaction:	S-S
Grouping:	
Timing:	10'
Answer Key:	1. Water is made up of three atoms of oxygen and two atoms of hydrogen. 2. Water can be solid, liquid and gas. 3. All materials have the same density. 4. Adhesion: Water gets bigger when it freezes. 5. Water can't make things wet. 6. Life is not possible without water. 7. Water can only dissolve two components. 8. Water can regulate the temperature

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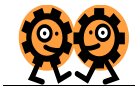
	9. Cohesion: two drops of water can't stick together 10. We need to drink water every day.

Activity 4.2 b)

Description and instructions:	Tell your students that some of the sentences in exercise a) are false. Ask them to meet in pairs, find the wrong sentences and correct them. They should follow the example given.
Materials:	* Running dictation sheets * Student's book page 20-21
Assessment:	* Participation and attitude: rubric and daily performance chart
Skills Addressed:	
Interaction:	S-S
Grouping:	
Timing:	10'
Answer Key:	1. **F**: Water is made up of **two** atoms of oxygen and **one** atom of hydrogen. 2. **T** 3. **F** All materials have **different densities.** 4. **F** **Anomalous dilation**: Water gets bigger when it freezes. 5. **F** Water **can** make things wet. 6. **T** Life is not possible without water. 7. **F** Water can ~~only~~ dissolve **many** components. 8. **T** Water can regulate the temperature 9. **F** Cohesion: two drops of water **can** stick together 10. **T** We need to drink water every day.

Activity 4.3 a, b and c

Description and instructions:	Tell your students to try to complete the purple box on page 21 to remember the definition of density. After that, explain to them that someone called John has given them a present and they have to find out what his job is. In order to do so, they will have to find the density (a), compare the result with the chart to know what the present is made of (b) and according to the results, circle a profession from the box (c).
Materials:	* Student's book page 21-22

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	* Calculator
Assessment:	---
Skills Addressed:	
Interaction:	---
Grouping:	
Timing:	8'
Answer Key:	a) Density: 2.66 g/cm^3 b) The present is made of wood c) John is a carpenter

Activity 4.4

Description and instructions:	Have your students to complete this bubble speech in which they jot down what they have learnt during the session.
Materials:	* Student's book page 22
Assessment:	---
Skills Addressed:	
Interaction:	---
Grouping:	
Timing:	5'
Answer Key:	The answer will depend on the student though it should include information such as some water properties' names: cohesion, adhesion, climate moderator...the definition or explanation of these properties, etc.

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Session 5

Resources:	* Laboratory * White board * Marker
Materials:	* Graduated cylinder * Two beakers * Scale * Salt * Eggs * Spoon * Fresh water
Assessment:	* Participation and attitude: rubric and daily performance chart (see CD-ROM: Assessment folder) * Homework: checklist (see CD-ROM: Assessment folder)

Warm-up Activity	
Description and instructions:	Take five minutes to ask students what they remember about the previous session.
Materials:	* Student's book page 23
Assessment:	* Participation and attitude: rubric and daily performance chart
Skills Addressed:	
Interaction:	T-SS
Grouping:	
Timing:	5'
Answer Key:	The answer will depend on the student though it should include information such as some water properties' names: cohesion, adhesion, climate moderator...the definition or explanation of these properties, etc.

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Activity 5.1	
Description and instructions:	Present the materials you are going to use. Then, tell students they will set an egg into salt and fresh water. Ask them to write down what they think is going to happen. Will the egg float or sink? Tell them to follow the diagram to make sentences.
Materials:	* Student's book page 24
Assessment:	---
Skills Addressed:	
Interaction:	---
Grouping:	
Timing:	8'
Answer Key:	Any answer is possible as in this stage we are only asking students to make a hypothesis: If I put an egg in salt water I think it will sink/float If I put an egg in fresh water I think it will sink/float

Activity 5.2	
Description and instructions:	Students join in the same groups they work during normal lessons. Give each group two beakers, a spoon, two eggs, some salt, some fresh water, a scale and a graduated cylinder. Tell students to follow the procedure written on pages 25-27 (See some guidelines in the box below) and to complete the exercise they find. Help them out throughout the process.  In case there is no time for students to finish, the teacher should have all materials prepared to show students the result of the experiment and make them reflect on how it is possible that the egg floats in salt water but sinks in fresh water.
Materials:	* Student's book page 25-27 * Two beakers, two eggs, a spoon, some salt, some fresh water, a scale and a graduated cylinder.
Assessment:	* Participation and attitude: rubrics and daily performance chart
Skills Addressed:	

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Interaction:	S-S
Grouping:	
Timing:	30'
Answer Key:	**Approximate results:** * Fresh water density: 1.0 g/cm^3 * Salt water density: 1.1 g/cm^3 * Egg density: 1.05 g/cm^3 or higher than that of fresh water but lower than that of salt water. * The egg floats in salt water because it is less dense than salt water. However, the egg sinks in fresh water because it is denser than fresh water.

Guidelines for the experiment:

Fresh water density:

1. Find the mass of the empty graduated cylinder. *Tell your students to press the button 'tare' on the scale when they have seen the weight of the cylinder.*

2. *Then tell them to fill a beaker with fresh water and to pour it into the graduated cylinder ,which is still on the scale, until 50 ml level.*

3. Find the mass of the fresh water

4. Calculate the density. *Write down the formula on the white board*. You already have the volume (50ml).

Salt water density:

1. Pour fresh water into a beaker.

1. Pour fresh water into a beaker.

2. Add some salt and stir until it dissolves. *Make sure students add as much salt as they can dissolve since it is important that the density of salt water is higher than that of fresh water.*

3. Follow the same procedure as above (fresh water: steps 1 to 4).

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Egg density:

1. Find the mass of the egg by weighing it on the scale.

2. Find its volume by setting it into a graduated cylinder and calculating the water displaced (water displaced= water after setting the object - water before setting the object)

Sink or float?

1. Pour fresh water into one beaker and salt water into another one.

2. Gently, set an egg into beaker 1 and another egg into beaker 2.

3. Observe what happens. (*the egg should float on salt water and sink in fresh water*)

Activity 5.4 a and b

Description and instructions:	Once they all have finished, ask them to write down why they think the egg floated on salt water but sank in fresh water. Tell them to follow the diagram to make sentences in exercise a) and to select the correct option in exercise b). Conclude the lesson with a summary of what you have experienced and why it happened.
Materials:	* Student's book page 28
Assessment:	---
Skills Addressed:	
Interaction:	---
Grouping:	
Timing:	10'
Answer Key:	A) * The density of an egg is higher than that of fresh water * The density of an egg is lower than that of salt water B) * We need that the density of the object is lower than the density of the liquid.

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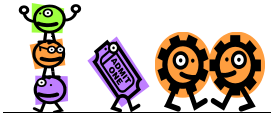
Homework: Activities 5.5, 5.6 and 5.7

Description and instructions:	Students video record the experiment found on pages 30-33. Give them the opportunity to do it individually, in pairs or small groups. If they decide to do it in pairs or groups, remind them they all have to speak during the recording. Once they have recorded the experiment they have to upload it to Moodle or give it to the teacher in any other format. Tell students to follow the instructions on pages 30-33. On page 29-30, they have some language tips that can help them to explain the experiment. Ask your students to follow a similar procedure as the one followed in class: First, hypothesis; second, experiment and third, conclusions. They should complete the exercises and hand them in together with the recording.
Materials:	* Student's book page 30-33 * Three glasses, some water, oil and vinegar. * A video camera, mobile phone or camera. * Computer and internet connection.
Assessment:	* Homework: checklist
Skills Addressed:	
Interaction:	S-S
Grouping:	
Timing:	--
Answer Key:	**5.5 Hypothesis** **Possible answers** I think water will float on the top of vinegar/oil I think water will mix with vinegar/oil I think oil will float on the top of water/vinegar I think oil will mix with water/vinegar I think vinegar will float on the top of water/oil I think vinegar will mix with water/oil **5.6 Results** Container 1: the two liquids (water and vinegar) mixed Container 2: The oil floated on the top of the water Container 3: The oil floated on the top of the vinegar. **5.7 Let's interpret the results** a) because they have different densities b) because they have the same density

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	* Water mixes up with vinegar because they have the same density * Oil floats on the top of both water and vinegar because its density is lower than that of water and vinegar.

Session 6

Resources:	* Youtube.com * Wordle.com * Computer * Internet connection * Digital board * MS Office * Moodle
Materials:	* 'Water cycle' power point presentation (See CD-ROM: Presentations' folder) * Student's book * www.youtube.com/watch?v=HQJq4kOLmV4 * www.youtube.com/watch?v=_VGoE5Gcy-A
Assessment:	* Participation and attitude: rubric and daily performance chart (see CD-ROM: Assessment folder) * Homework: checklist (see CD-ROM: Assessment folder)

Warm-up Activity	
Description and instructions:	Take five minutes to ask students what they remember about the previous session.
Materials:	* Student's book page 33
Assessment:	* Participation and attitude: rubric and daily performance chart

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Skills Addressed:	
Interaction:	T-SS
Grouping:	
Timing:	5'
Answer Key:	The answer will depend on the student though it should include information such as how to calculate density and how things can float or sink depending on their density.

Activity 6.1	
Description and instructions:	Tell students you are going to watch a video but they have to guess what is the video about. In order to do so, they have to look at the words in exercise 6.1 and discuss with a partner what they think the video is about.
Materials:	* Student's book page 34 * www.youtube.com/watch?v=HQJq4kOLmV4
Assessment:	* Participation and attitude: rubrics and daily performance chart
Skills Addressed:	
Interaction:	S-S
Grouping:	
Timing:	5'
Answer Key:	* The video is about the water cycle

Activity 6.2	
Description and instructions:	Tell students they are going to watch the video twice and they have to match the pictures with the process and order them with a number from 1 to 6.
Materials:	* Student's book page 35-36
Assessment:	--
Skills Addressed:	

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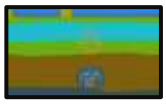
Interaction:	--
Grouping:	
Timing:	10'
Answer Key:	 CONDENSATION (2)  DISCHARGE (6)  INFILTRATION (5)  EVAPORATION (1)  PRECIPITATION (3)  SURFACE RUN-OFF (4)

Activity 6.3

Description and instructions:	Tell students you are going to watch a power point presentation but this time they will be the teachers. They will have to explain the water cycle. In order to do so, first they have to explain the six different processes in exercise 6.3. Remind them they can use the useful vocabulary. Go around the class helping students and giving some hints. That way, they will feel prepare to participate in the explanation.
Materials:	* Student's book page 37-38
Assessment:	* Participation and attitude: rubrics and daily performance chart
Skills Addressed:	
Interaction:	S-S
Grouping:	
Timing:	20'
Answer Key:	**<u>Possible answers:</u>** * Evaporation and Evapotranspiration: When a drop is in the ocean,

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	a lake, a river or a plant, the sun heats it. Then, water gets hot, turn into gas and goes up in the sky. * Condensation: When a drop is in the sky , it becomes part of a cloud. * Precipitation: When a drop is in a cloud, it gets cold and goes down again. * Surface run-off: When a drop falls down to land, it moves across the land forming rivers and streams. * Infiltration: When a drop has arrived at a river, it can get into the ground and reach an aquifer. * When a drop is in an aquifer, it is taken to the ocean again.

Activity: Presentation

Description and instructions:	Tell students they will have to explain the different processes in groups. The teacher will be in charge of the introduction and the conclusion. Also, he/she will have to complete students' explanations when necessary (see guidelines for the presentation in the box below).
Materials:	* Student's book page 37-38 * Teacher: 'Water cycle' presentation (slides 1-3 and 10-11) * Students: 'Water cycle' presentation (slides 4-9)
Assessment:	* Participation and attitude: rubrics and daily performance chart
Skills Addressed:	
Interaction:	T-SS S-SS
Grouping:	
Timing:	20'
Answer Key:	**<u>Possible answers:</u>** * Evaporation and Evapotranspiration: When a drop is in the ocean, a lake, a river or a plant, the sun heats it. Then, water gets hot , turns into gas and goes up in the sky. * Condensation: When a drop is in the sky , it becomes part of a cloud. * Precipitation: When a drop is in a cloud, it gets cold and goes down again.

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* Surface run-off: When a drop falls down to land, it moves across the land forming rivers and streams.
* Infiltration: When a drop has arrived at a river, it can get into the ground and reach an aquifer.
* When a drop is in an aquifer, it is taken to the ocean again.

Guidelines for the power point presentation:

SLIDE 1: Cover and title.

SLIDE 2: The water cycle is the continuous movement on, above and below the Earth's surface. Water can change states (liquid, solid and gas) during the water cycle.

SLIDE 3: The water cycle has six processes: evaporation, evapotranspiration, condensation, precipitation, infiltration, surface run-off and discharge.

SLIDE 4-9: Complete the students' explanations when necessary (see answer key above).

SLIDE 10: The water cycle can regulate the temperature. For example, in the process of evaporation, water takes up energy from the surroundings and cools the environment. During the process of condensation, water releases energy to its surroundings, warming the environment.

SLIDE 11: *Ask students why they think the water cycle is important. If they do not know the answer you could ask them what they think would happen if, for example, it didn't rain.* The water cycle is important because it ensures there is water for everyone in the planet. It also purifies water, replenishes the land with freshwater, and transports minerals to different parts of the planet.

Activity 6.4

Description and instructions:	Have your students to complete this bubble speech in which they jot down what they have learnt during the session.
Materials:	* Student's book page 38
Assessment:	---

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Skills Addressed:	
Interaction:	---
Grouping:	
Timing:	5'
Answer Key:	The answer will depend on the student but it should include information such as the water cycle processes and their explanation.

Homework: Cool Water Cartoon	
Description and instructions:	Tell students to follow the instructions on page 39. They will have to watch a video and identify some water properties, water states and water cycle processes. In addition to this, they will have to say in what minute they can see those processes, states or properties. A model answer has been given to them in the exercise. Students have to answer in a forum the teacher has created on Moodle.
Materials:	* Student's book page 39 * www.youtube.com/watch?v=_VGoE5Gcy-A
Assessment:	* Homework: cool water cartoon rubric
Skills Addressed:	
Interaction:	--
Grouping:	
Timing:	--
Answer Key:	* 00.00-00.20: liquid * 0.22-0.24: water is important to live (plants) * 00.24-00.27: adhesion (water mixes with soap) * 00.26-00.29: precipitation and liquid state * 00.30-00.33: adhesion (wet hair) * 00.38-00.42: adhesion (wet sponge) * 00.45-00.47: cohesion and liquid state * 00.49-00.51: solvency and/or adhesion * 1.00: cohesion (three drops in one) * 1.05-1.06: cohesion (three drops in one)

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	* 1.16-1.18: cohesion * 1.18-1.22: water is important to live (animals) * 1.35-1.38: solid (ice) * 1.37-1.39: surface run-off * 1.41-1.50: gas * 1.41-1.42: evaporation * 1.42-1.44: condensation * 1.50: precipitation * 1.57-1.59: cohesion * 2.00-2.08: cohesion * 2.16-2.20: discharge * 2.17-2.30: climate moderator

Session 7

Resources:	* Computer * Projector * Digital Board * Internet connection * Youtube.com * MS Office
Materials:	* 'Saving water' power point presentation (see CD-ROM: Presentations' folder) * Student's book * www.youtube.com/watch?v=gtcZbN0Z08c&feature=channel * www.youtube.com/watch?v=dKdZYYmTT9A
Assessment:	* Presentation and attitude: rubrics and daily chart performance. (see CD-ROM: Assessment folder)

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Warm-up Activity	
Description and instructions:	Take five minutes to ask students what they remember about the previous session.
Materials:	* Student's book page 40
Assessment:	* Participation and attitude: rubric and daily performance chart
Skills Addressed:	
Interaction:	T-SS
Grouping:	
Timing:	5'
Answer Key:	The answer will depend on the student though it should include information such as the name for the water cycle processes and their explanation.

Intro: Presentation	
Description and instructions:	The teacher should make a connection between this session and the first session which was concluded saying that water was very important for living beings. Have a student to read the purple box on page 40. Highlight the importance of saving water and tell them that they are going to learn how to do it. Then, show the 'saving water' presentation (see guidelines for power point presentation).
Materials:	* 'Saving water' presentation (slides 1-2) * Student's book page 40 * www.youtube.com/watch?v=gtcZbN0Z08c&feature=channel
Assessment:	* Participation and attitude: rubrics and daily performance chart
Skills Addressed:	
Interaction:	T-SS
Grouping:	--
Timing:	8'
Answer Key:	--

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Guidelines for the power point presentation:

SLIDE 1: Cover and title

SLIDE 2: *Tell students they are going to watch a video. The video shows a boy who is brushing his teeth with the tap on. At the same time, we can see a fish swimming in a lake where the level of water is decreasing. When the water is almost gone, the fish phones the boy and asks him to turn the tap off. After watching the video, ask students what people*

Activity 7.1	
Description and instructions:	Have students to look at exercise 7.1 on page 40-41. Tell them that you are going to do this activity together. You will show the pictures in the power point and together you will decide whether the adults are saving water or not. If the adult is saving water, they have to put a tick; if the adult isn't, they have to put a cross. Try to ask them questions such as 'Should she do that?' 'What should she do?' 'She shouldn't...' The more the teacher uses the modal verbs should/shouldn't the easier it will be for students to do the exercises later.
Materials:	* 'Saving water' presentation (slides 3-6) * Student's book page 40-41
Assessment:	* Participation and attitude: rubrics and daily performance chart
Skills Addressed:	
Interaction:	T-SS
Grouping:	--
Timing	10'

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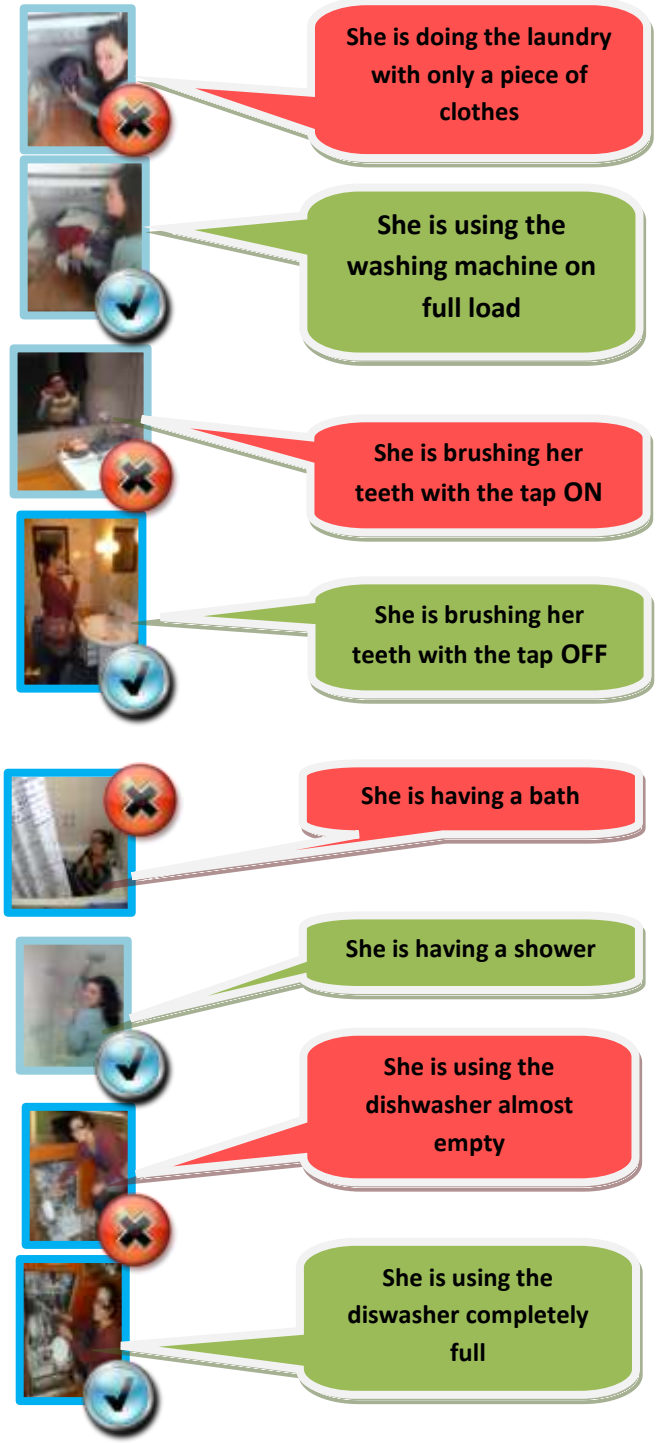
Answer Key:



Activity 7.2

Description and

Introduce Lucy to the class. Lucy needs some advice on how to save water. Tell students to read the text and underline in **green** when

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instructions:	Lucy saves water and in **red** when she doesn't. Recommend students to have a look at the drawings since they can help them to understand the text.
Materials:	* Student's book page 41-42
Assessment:	--
Skills Addressed:	
Interaction:	T-SS
Grouping:	
Timing:	8'
Answer Key:	See below

LUCY'S HOUSE

Every day Lucy wakes up and washes her face and brushes her teeth with the tap on (1). Then she has breakfast and puts the dirty dishes in the dishwasher. She doesn't use the dishwasher until it is completely full (2). Then she goes to school. Lucy always tells a teacher when she sees a leak (3). After school, Lucy goes back home and helps her mother with the housework. She waters the plants when it's raining (4), she tidies up her room, she washes the car with a bucket and a sponge (5)... Then she does her homework and has a long bath (6) . Later, she has dinner and goes to bed.

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Activity 7.3	
Description and instructions:	Now that students know when Lucy saves water, they can give her some advice using should/shouldn't. Go over the examples with the students and have them to say one extra example. Then, in groups, they have to finish the exercise.
Materials:	* Student's book page 43
Assessment:	* Participation and attitude: rubrics and daily performance chart.
Skills Addressed:	
Interaction:	S-S
Grouping:	
Timing:	8'
Answer Key:	Possible answers: * Lucy should brush her teeth and wash her face with the tap off * Lucy shouldn't brush her teeth and wash her face with the tap on * Lucy should use the dishwasher when it is full * Lucy shouldn't use the dishwasher when it isn't full * Lucy should wash the car with a bucket and a sponge * Lucy shouldn't wash the car with a waterspout * Lucy shouldn't water the plants when it is raining * Lucy should water the plants when it isn't raining * Lucy should always tell a teacher when she sees a leak * Lucy shouldn't have a long bath * Lucy should have a shower

Activity 7.4 a	
Description and instructions:	Tell students they are going to watch a music video and they have to pay attention and find out what the three R's are.
Materials:	* Student's book page 43-44

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	* www.youtube.com /watch?v=dKdZYYmTT9A
Assessment:	--
Skills Addressed:	
Interaction:	--
Grouping:	
Timing:	5'
Answer Key:	Reduce Reuse Recycle

Activity 7.4 b	
Description and instructions:	Tell students they are going to watch the music video twice again and they have to fill in the gaps with the words given in the box.
Materials:	* Student's book page 44 * www.youtube.com /watch?v=dKdZYYmTT9A
Assessment:	--
Skills Addressed:	
Interaction:	--
Grouping:	
Timing:	8'
Answer Key:	See next page.

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Three it's a **MAGIC** number
Yes it is, it's a **MAGIC** number
Because two times three is **SIX**
And three times six is **EIGHTEEN**
And the eighteenth letter in the alphabet is R!!!

We've got three R's we're going to talk about today.
We've got to learn to
REDUCE, Reuse, Recycle
Reduce, Reuse, **RECYCLE**
Reduce, Reuse, Recycle
Reduce, **REUSE**, Recycle

If you're going to the **MARKET** to buy some juice
You've got to bring your own bags and you learn to **REDUCE** your waste

And if your brother or your sister's got some cool clothes
You could try them on before you buy some more of those
Reuse, we've got to learn to REUSE

And if the first two R's don't work out
And if you've got to make some
TRASH

Don't throw it out
Recycle, we've got to learn to
RECYCLE,
We've got to learn to Reduce, Reuse,
RECYCLE

Reduce, Reuse, Recycle
Reduce, **REUSE**, Recycle
Reduce, Reuse, Recycle
Because three it's a **MAGIC** number
Yes it is, it's a **MAGIC** number

3, 3, 3
3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36
33, 30, 27, 24, 21, 18, 15, 12, 9, 6,

and3, it's a magic number

Activity 7.5

Description and instructions:	Have your students to complete this bubble speech in which they jot down what they have learnt during the session.
Materials:	* Student's book page 45
Assessment:	---
Skills Addressed:	
Interaction:	---

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Grouping:	
Timing:	5'
Answer Key:	The answer will depend on the student but it should include information such as ways to save water.

Session 8

Resources:	* Computer * Projector * Digital board * MS Office * Glogster.com
Materials:	* Student's book * 'Water pollution' power point presentation (see CD-ROM: Presentations' folder) * http://iessabadell.glogster.com/how-to-make-your-poster/ * VOKI: http://www.voki.com/php/viewmessage/?chsm=f7eef19f03c297bcd76ccf2a35e68cc0&mId=648935
Assessment:	* Participation and attitude: rubric and daily chart performance (see CD-ROM: Assessment folder) * Glogster: checklist (see CD-ROM: Assessment folder)

Warm-up Activity	
Description and instructions:	Take five minutes to ask students what they remember about the previous session. After this activity, remind students that they will do a final test at the end of the unit, that is, in session 12. By now, the teacher should be able to give the exact date so that students can start

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	reviewing.
Materials:	* Student's book page 46
Assessment:	* Participation and attitude: rubric and daily performance chart
Skills Addressed:	
Interaction:	T-SS
Grouping:	
Timing:	5'
Answer Key:	The answer will depend on the student though it should include information such as ways to save water.

Intro: Presentation

Description and instructions:	The teacher should make a connection between this session and both the first one and the previous one. As we all need water to live it is important not only to save water but to keep it clean. As an introduction, play the Voki and ask students what the Voki talks about. Then, have a student to read the purple box on page number 46 and show the 'water pollution' presentation (see guidelines for power point presentation).  The teacher should ask students to raise their yes/no cards from time to time so that he/she can make sure they follow his/her explanations.
Materials:	* 'Water pollution' presentation * VOKI: http://www.voki.com/php/viewmessage/?chsm=f7eef19f03c297bcd76ccf2a35e68cc0&mId=648935
Assessment:	* Participation and attitude: rubrics and daily performance chart
Skills Addressed:	
Interaction:	T-SS
Grouping:	--
Timing:	10'
Answer Key:	--

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Guidelines for the power point presentation:

SLIDE 1: Cover and title

SLIDE 2: *Ask students what is water pollution, after having watched the Voki and read the purple box on page 46, they should be able to answer to this question*. Water pollution is the contamination of water bodies. It occurs when pollutants (pesticides, chemical products, oils...) are discharged directly or indirectly into water bodies without adequate treatment to remove harmful compounds. *Ask students how is water polluted in the pictures.*

In the first picture on the left, we can see there is a drain outlet which discharges pollutants directly into the sea. Water doesn't go through a water treatment plant before. In the second picture, rubbish has been probably thrown. In the third picture, we can see a pipe which discharges sewage water from industries directly into the sea. *Ask students if they think this kind of contamination can affect people and in what ways.* Water pollution can affect us because everything is connected. For example, a polluted sea can damage fishes and if people eat those fishes, they could get ill.

SLIDE 3: *Ask students if throwing chemical products down the drain is right.* What we throw down the drain at home can arrive at the sea, a river, a lake...If we throw pollutant substances, we can contaminate the water. Let's see how that is possible.

SLIDE 4:

1.Thanks to the water cycle, water from oceans and seas become the fresh water we have in rivers, streams and lakes. Most of the water we use at home is taken from these surface water bodies.

2. Before this water reaches our homes, it goes through a water treatment plant. There, the water is screened to remove sticks, trash or other large pieces of contaminants. Then some chemical products are added to the water to form tiny sticky particles that attract dirt particles. After that, the water passes through filters that help remove even smaller particles. After filtration, a small amount of chlorine. is added to kill any bacteria or microorganisms that may be in the water. Water is placed in a closed tank or reservoir where it flows through pipes to homes and businesses in the community

3. Once we use it at home it goes back to the water treatment plant before it is discharged in the ocean.

SLIDE 5: Now that we know everything is connected, what can we do to avoid water pollution? *Go over the examples and ask students to give you a few more.*

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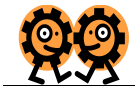
Activity 8.1	
Description and instructions:	Students meet in pairs and answer to the questions in exercise 8.1
Materials:	* Student's book page 47
Assessment:	--
Skills Addressed:	
Interaction:	S-S
Grouping:	
Timing:	5'
Answer Key:	Everything is connected. What we do at home can affect water bodies such as lakes, rivers, seas and oceans. As a consequence, sea plants and animals could be damaged. In addition to this, humans could be affected as well.

Activity 8.2	
Description and instructions:	In groups, students have to create a poster with a list of tips on how to save water and avoid its pollution. some ideas could be taken from exercise 7.3. Students will have to use Glogster.com. A Glogster explaining how to do a poster using this resource has been created. Tell students to visit the following link: and follow the instructions. This is an easy way for students to know the main features Glogster offers. The teacher should create an account in Glogster where students could keep their posters private. In addition to this, the teacher would have access to the students' works easily. Students probably won't finish the poster so the teacher should remind them to finish it at home.
Materials:	* Student's book page 48 * http://iessabadell.glogster.com/how-to-make-your-poster/
Assessment:	* Participation and attitude: rubrics and daily performance chart

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Skills Addressed:	
Interaction:	S-S
Grouping:	
Timing:	30'
Answer Key:	--

Activity 8.3	
Description and instructions:	Have your students to complete this bubble speech in which they jot down what they have learnt during the session.
Materials:	* Student's book page 48
Assessment:	---
Skills Addressed:	
Interaction:	---
Grouping:	
Timing:	5'
Answer Key:	The answer will depend on the student but it should include information such as causes of water pollution and ways to avoid it.

Session 9

Resources:	* Laboratory
Materials:	* Dirty water * Scissors * Plastic bottles * Sand * Gravel

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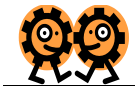
	* Cotton
Assessment:	* Participation and attitude: rubric and daily performance chart (see CD-ROM: Assessment folder)

Warm-up Activity

Description and instructions:	Take five minutes to ask students what they remember about the previous session.
Materials:	* Student's book page 49
Assessment:	* Participation and attitude: rubric and daily performance chart
Skills Addressed:	
Interaction:	T-SS
Grouping:	
Timing:	5'
Answer Key:	The answer will depend on the student though it should include information such as causes of water pollution and ways to avoid it.

Activity 9.1

Description and instructions:	Present the materials (without saying the names) and ask students for the names. Then have students in pairs to complete exercise 9.1 in which they have to match the noun with both its definition and picture. This exercise aims at students to know the vocabulary that will be used during the session.
Materials:	* Student's book page 50-51
Assessment:	---
Skills Addressed:	
Interaction:	S-S
Grouping:	
Timing:	8'
Answer Key:	Scissors→ object that you use to cut paper 

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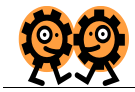
Plastic bottle→ receptacle made of plastic which you use to drink water

Cotton→ a fibre that people use to make clothes and other textiles

Gravel→ little rock fragments

Sand→ small grains that you find in the beach and the desert

Activity 9.2

Description and instructions:	Show students a bottle of dirty water (mixed with leaves, small braches, pieces of plastic or any other material...) and ask them if they would drink it and why (not) .Then tell students you are going to build a mini water treatment plant in order to clean that water. Have students in pairs to try to predict the order of the steps for the experiment. Students probably won't know the answer but the teacher should lead them to it. They may say pouring some dirty water is the first step when it is actually the last one.
Materials:	* Student's book page 51
Assessment:	---
Skills Addressed:	
Interaction:	S-S
Grouping:	

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Timing:	8'
Answer Key:	See below

Take the scissors and cut the bottle in two parts	1
Pour some dirty water into the filter	6
Put the top of the bottle inside the bottom of the bottle, with the little hole inside the receptacle	2
Put some cotton in the inverted part of the bottle	3
Put some gravel in the inverted part of the bottle	5
Put some sand in the inverted part of the bottle	4

Activity 9.3

Description and instructions:	Now that students know the procedure, they follow the steps and build their mini water treatment plant. Help them throughout the process and make them reflect on what is the role every material has (gravel, sand and cotton). Ask students to filter water twice and observe the difference. After finishing, they have to write down what they have seen it happened when they poured some dirty water into the filter. They should add an explanation.
Materials:	* Student's book page 51
Assessment:	Participation and attitude: rubric and daily performance chart.
Skills Addressed:	
Interaction:	S-S
Grouping:	
Timing:	15'
Answer Key:	When we poured some dirty water into the small water plant it is cleaned. In first place, the gravel filters those big pieces of rocks, leaves, plastic... In second place, the sand filters those small pieces

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	the gravel couldn't. Finally, the cotton acts as a top so that sand and gravel don't fall.

Activity 9.4	
Description and instructions:	Have your students to complete this bubble speech in which they jot down what they have learnt during the session.
Materials:	* Student's book page 52
Assessment:	---
Skills Addressed:	
Interaction:	---
Grouping:	
Timing:	5'
Answer Key:	The answer will depend on the student but it should include information such how to build a filter and what happens when you pour some dirty water into it.

Session 10

Resources:	* Glogster.com * Computer * Internet connection
Materials:	* Student's book (worksheets and glossary)
Assessment:	* Glogster: checklist (see CD-ROM: Assessment folder) * Participation and attitude: rubric and daily performance chart. (see CD-ROM: Assessment folder)

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Activity 10.1	
Description and instructions:	Students have to prepare their oral presentations in groups. They can follow the steps given in pages 53-55: **STEP 1**: Students decide the topic for their oral presentation. Some ideas are given but any topic related to water would be acceptable. **STEP 2**: Students look for information, pictures or videos for their presentation. Then, they write down the main ideas. **STEP 3**: They develop the main ideas and decide who is going to be in charge of explaining each part. Students are provided with some language tips and useful vocabulary. **STEP 4**: Students create a visual support for their oral presentation with Glogster.com. Students probably won't finish preparing the oral presentations so remind them to finish it at home since this final project represents an important part of the global mark. Don't forget to remember students that the final test will be done in session 12.
Materials:	* Student's book page 53-55
Assessment:	* Participation and attitude: rubric and daily performance chart
Skills Addressed:	
Interaction:	S-
Grouping:	
Timing:	55'
Answer Key:	--

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Session 11

Resources:	* Internet connection * Computer * Projector * Glogster.com
Materials:	* Students' posters (Glogster)
Assessment:	* Oral presentation: rubric

Oral Presentations	
Description and instructions:	Prepare a bag with as many pieces of paper as groups there are in the class. Every piece of paper should have written a number. Tell students that the order for the oral presentations will be decided in a raffle. Every group chooses a representative. All representatives go to the front of the class and take a piece of paper from the bag. Once students know their turn, they can start presenting.  Don't forget to remember students, the final test will be done next session.
Materials:	* Students' Glogsters
Assessment:	---
Skills Addressed:	
Interaction:	S-SS
Grouping:	
Timing:	5' for the raffle 5'-10' per group
Answer Key:	--

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Session 12

Resources:	* Surveymonkey.com * Computer * Internet connection
Materials:	* Final test copies (see CD-ROM: Assessment folder) * Self-assessment sheet copies (see CD-ROM: Assessment folder) * Peer-assessment sheet copies (see CD-ROM: Assessment folder) * www.surveymonkey.com/s/H7JYXF7 * Student's book
Assessment:	* Final test criteria (see CD-ROM: Assessment folder) * Participation and attitude: self and peer assessment rubrics. (see CD-ROM: Assessment folder)

Final Test	
Description and instructions:	Go over the questions of the exam and let students ask if they have any doubts. Then, have them to complete the test.
Materials:	* Final test copies
Assessment:	--
Skills Addressed:	
Interaction:	--
Grouping:	
Timing:	45'
Answer Key:	1. 1. 70%, hydrosphere 2. Salt water, fresh water (in any order) 3. Ocean 4. Rivers, swamps (in any order) 5. Land 6. Inundated 7. Rain

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2.

a) T
b) F
c) T
d) F
e) F
f) Possible answers:

* Two drops stick together (cohesion)
* I spilt water over my clothes and now they are wet (adhesion)
* Water is colder in winter (climate moderator)
* I mix salt with water and salt apparently disappears (solvency)
* I put a glass bottle of water in the freezer, when I took it out, it was broken (anomalous dilation)

3. First, water from plants, rivers, lakes, oceans and seas gets hot because of the sun. Then it turns into gas and goes up in the sky. This is evaporation. After that, the water becomes part of a cloud. This is condensation. Then, the water in the cloud gets cold and goes down to land as rain, hail or snow. This is precipitation. Once it is on the surface it forms rivers and streams which move across the land. This is surface run-off. Water from rivers and streams filters into the ground and becomes part of groundwater (aquifer). This is infiltration. Finally, water goes back to oceans and seas. This is discharge.

4. Possible answers:

We should have a shower instead of having a bath.
We should tell an adult when we see a leak.
We should brush our teeth with the tap off.
We should wash our car with a bucket and sponge.
We should use the washing machine and dishwasher on full load.
We should install faucet aerators in our taps.

Both the imperative and should/shouldn't forms are accepted.

5. 2.66 g/cm^3

6. Possible answers:

* Water is important for humans, plants and animals because we all need water to live.
* We use water every day: to wash, clean, swim... Without water, we couldn't do a lot of things.

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	* Our bodies are 70% water and that is why we have to drink water every day. If we didn't drink water, we would die. * The Earth is 70% water so if we had no water, our planet would be very different.

Peer and Self assessment

Description and instructions:	Tell students they are the teachers now. They have to complete two sheets in which they will be assessing themselves and their group-mates. Remind them it is important to be honest as this counts for the final mark.
Materials:	* Peer and Self assessment copies
Assessment:	--
Skills Addressed:	
Interaction:	--
Grouping:	
Timing:	10'
Answer Key:	--

Unit Feedback

Description and instructions:	Tell students they are the teachers now. They have to assess the teaching unit: materials, topic, activities... Tell them it is important to know their opinion in order to improve for future occasions. Then, have them to complete the survey on the link they have on page 41 of the student's book.
Materials:	* www.surveymonkey.com/s/H7JYXF7 * Student's book page 55
Assessment:	--
Skills Addressed:	
Interaction:	--
Grouping:	
Timing:	5'
Answer Key:	--

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Activities for Early Finishers

Resources:	* Computer * Internet connection
Materials:	* Student's book pages 56-59
Assessment:	—

These activities have been designed for those students who always finish before the rest of the class. In addition to this, these activities could be use as a plan B when the class routine finishes before expected.

A.1

Description and instructions:	Students order the letter to form words. This activity is recommendable from session 2 forward.
Materials:	* Student's book page 56
Assessment:	--
Skills Addressed:	 
Interaction:	--
Grouping:	
Timing:	5'-10'
Answer Key:	1. Water 2. River 3. Stream 4. Groundwater 5. Swamp 6. Ocean 7. Lake 8. Glacier 9. Salt water

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A.2

Description and instructions:	Students answer the quiz on the following link: www.oswego.org/ocse-web/quiz/mquiz.asp?filename=waterproperties, Students can copy the link from their books (page 57). The quiz corrects itself and gives students the score and number of attempts. In addition to this, the activity can be done as many times as wanted. This activity is recommendable from session 4 forward.
Materials:	* Student's book page 57
Assessment:	--
Skills Addressed:	
Interaction:	--
Grouping:	
Timing:	5'-10'
Answer Key:	* **Adhesion**: water makes things wet * **Anomalous dilation:** water expands when freezes * **Climate moderator**: water can regulate temperature * **Cohesion**: water is attracted to water * **Solvency**: water can dissolve many substances * **Density**: the quantity of substance a material has got in $1cm^3$

A.3

Description and instructions:	This is a drag and drop activity in which students match the terms and definitions on the following link: www.oswego.org/ocsd-web/match/term/draggeneric.asp?filename=watercycle. Students can copy the link from their books (page 57). The activity corrects itself and gives students the score. In addition to this, the activity can be done as many times as wanted. This activity is recommendable from session 4 forward.
Materials:	* Student's book page 57
Assessment:	--

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Skills Addressed:	
Interaction:	--
Grouping:	
Timing:	5'
Answer Key:	* **Condensation:** water gas changes to liquid and becomes a cloud * **Surface run-off:** surface water moves across the land and forms rivers and streams. * **Discharge**: water goes back to the ocean or sea * **Precipitation**: water gas gets cold, turns into rain, hail or snow and falls to the ground. * **Evaporation**: water gets hot, turns into gas and goes up in the sky. * **Infiltration**: water filters into the ground and becomes part of groundwater (e.g.aquifer).

A.4

Description and instructions:	Students complete the search puzzle they will find on page 57.This activity is recommendable from session 4 forward.
Materials:	* Student's book page 57
Assessment:	--
Skills Addressed:	
Interaction:	--
Grouping:	
Timing:	5'-10'
Answer Key:	* See below

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S	P	V	T	X	U	B	J	C	L	O	U	D	P	S
T	P	S	B	C	R	A	I	N	T	D	N	E	X	U
G	S	D	R	O	P	L	E	T	Y	K	H	Y	O	I
I	X	W	A	T	E	R	V	A	P	O	R	V	A	K
W	T	C	E	V	A	P	O	R	A	T	I	O	N	H
F	R	E	S	H	W	A	T	E	R	M	A	M	G	A
L	I	Q	U	I	D	P	H	R	U	N	O	F	F	T
I	G	H	G	O	N	D	E	N	S	A	T	I	O	N
Q	U	G	A	A	H	M	P	B	I	I	U	K	I	N
F	D	P	R	E	C	I	P	I	T	A	T	I	O	N
Z	W	V	B	P	D	W	L	Q	B	D	Y	Y	W	O
C	Q	N	N	I	J	Z	E	K	S	M	U	Z	W	P
Y	C	R	L	E	Y	S	T	R	E	A	M	R	I	L
H	Z	O	D	I	L	F	X	Q	J	I	G	A	D	Q
S	S	Q	C	L	R	O	M	W	D	O	Q	V	S	E

CLOUD
CONDENSATION
DROPLET
EVAPORATION
FRESH WATER
GAS
LIQUID
PRECIPITATION
RAIN
RUNOFF
SOLID
STREAM
WATER VAPOR

A.5

Description and instructions:	Students have to complete the quiz on the following link: http://quizegg.com/q/53063 Some information will be demanded: User: teachingunit Password: clil2010 This activity is recommendable from session 8 forward.
Materials:	* Student's book page 58
Assessment:	--
Skills Addressed:	
Interaction:	--
Grouping:	
Timing:	5'-10'
Answer Key:	The questions change order every time you do the quiz. That is why both questions and answers are given. See answers in **bold:**

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	* A process in which water vapor turns into a cloud: **condensation** * We pollute water if we spill **oil, pesticides and chemical products** down the drain. * This type of precipitation is when water falls from clouds in a solid state: **hail** * A process in which liquid water turns into gas: **evaporation** * What percentage of the Earth's water is fresh? **3%** * **Density** is the quantity of substance a material has got in $1cm^3$ * What is solid water called? **ice** * What percentage of the Earth's water is salt water? **97%** * What percentage of the Earth's surface is water? **71%** * This type of precipitation is when water falls from clouds in a liquid state: **rain**

A.5

Description and instructions:	Students complete the crossword on page 59. This activity is recommendable for session 8 forward.
Materials:	* Student's book page 59
Assessment:	--
Skills Addressed:	
Interaction:	--
Grouping:	
Timing:	5'-10'
Answer Key:	**ACROSS:** 2.Cohesion 4.Groundwater 5.Glacier 6. Rain 9. Adhesion 10.Hail 11.Surfacerunoff 12.Condensation **DOWN:** 1.Infiltration

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3.Evaporation
6.River
7.Density
8.Lake

Revision Game

Revision Game

Description and instructions:

This game has been created for a revision session if necessary. Students meet in groups of four forming two teams (two people per team). They throw the dice, move their counters around the board, take a card matching the square drawing where they have landed and answer different kinds of questions to be able to continue on their way. There are four types of cards:

* TALK: Students give a definition for the word written in the card they have taken.
* ACT: Students mime the word written in the card.
* DRAW: Students draw the word written in the card.
* ANSWER: Students answer a multiple choice question.

Talking, acting and drawing are tests to be done within a team. One member of the team takes the card and the other one guesses the word. The card for 'ANSWER' must be taken and read by the opposing team.

* Board: Icon key

You lose one turn

You lose two turns


Talk

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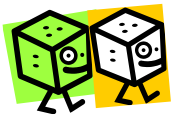
	 Draw  Answer  Act  You go back to the 'start' square  Throw the dice again
Materials:	* Board (see CD-ROM: Materials' folder) * A dice per group * Game cards (see CD-ROM: Materials' folder) * A counter per team
Assessment:	--
Skills Addressed:	
Interaction:	SS-SS
Grouping:	
Timing:	50'
Answer Key:	**DRAW:** evaporation, condensation, infiltration, discharge, rain, cohesion, solid, liquid, gas, cloud, water pollution and hail. **TALK:** River, stream, swamp, ocean, sea, lake, groundwater, glacier, dilation, solvency, cohesion and density. **ACT:** swim, drink, have a shower, take a bath, brush your teeth, wash your hands, do the washing-up, wash the clothes, clean the house, wash the car, water the plants. **ANSWER:** **1. What is the name of all the water in the world?** a) Hydrosphere

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b) Dilation
c) Ocean

2. What can you do to save water?
a)Brush my teeth with the tap on
b) Tell my parents when I see a leak
c) Wash the car with a waterspout

3. Water is attracted to water. What's this?
a)Adhesion
b) Cohesion
c) Dilation

4. Water can wet things. What's this?
a)Density
b)Dilation
c) Adhesion

5. Which of these is NOT part of the water cycle?
a) Dilation
b)Precipitation
c) Infiltration

6. What's evapotranspiration?
a) Evaporation from the plants
b) Water travels through the plants
c) Water can wet things

7. What is water pollution?
a) very clean water
b) contaminated water
c) it is a part of the water cycle

8. Why does an egg float on salt water?
a) because it is denser
b) because it is as dense as water
c) because it is less dense than water

9. Is it important to save water?
a) No
b) Yes
c) It depends

10. Can lakes have salt water?
a) Yes, they always have salt water
b) No, they never have salt water
c) Yes, they can have fresh and salt water

11. What is the name of the shortest river in the world?
a) D River
b) Caspian River

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c) Nile

12. What kinds of water do we have in the hydrosphere?

a) Salt water and polluted water

b) fresh water and salt water

c) salt water and sweet water

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ASSESSMENT CHART

Session	Activities	Timing	Tool/Form	Criteria	Comments
1 'What do we use water for?'	1.1 When do we use water?	20'	Rubric and daily performance chart Form: Observation	Students show interest and a respectful attitude towards the activity. In addition, they are willing to work collaboratively. Students participate orally sharing their ideas with the class about the uses we give to water. Foreign language criterion: 1,8 and 9	Every day the teacher observes and fill in the daily performance chart. At the end of the unit the teacher will be able to complete the rubric with the information gathered together daily in the chart. Furthermore, during the last session, students will assess themselves and their peers on participation and attitude.
	1.2 What happens if there is no water in the world?	10'	Rubric and daily performance chart Form: Observation	Students show interest and a respectful attitude towards the activity. In addition, they are willing to work collaboratively. Students participate orally sharing their ideas with the class about what happens if there is no water in the world. Foreign language criterion: 1,8 and 9 Science criterion: 1	
2 'Where is water on	Warm-up activity	5'	Rubric and daily performance chart Form: Observation	Students show interest and a respectful attitude towards the activity. They can explain comprehensibly what they remember about the previous session.	

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Earth?'				Foreign language criterion: 1 and 8	
	2.3 Taboo	15'	Rubric and daily performance chart Form: Observation	Students show interest and a respectful attitude towards the activity. They can define a word for a partner to guess and understand their partners' definitions. Foreign language criterion: 1, 2 and 8	
3 'Where is water on Earth II?'	Warm-up activity	5'	Rubric and daily performance chart Form: Observation	Students show interest and a respectful attitude towards the activity. They can explain comprehensibly what they remember about the previous session. Foreign language criterion: 1 and 8	
	3.1 Jigsaw task	45'	Rubric and daily performance chart Form: Observation	Students show interest and a respectful attitude towards the activity They are willing to work collaboratively and can understand the main ideas of a text about water bodies (glaciers, rivers, oceans or lakes) and explain them to a partner. Foreign language criterion: 1, 2, 8 and 9	
4 'Water properties'	Warm-up activity	5'	Rubric and daily performance chart Form: Observation	Students show interest and a respectful attitude towards the activity. They can explain comprehensibly what they remember about the previous session. Foreign language criterion: 1 and 8	
	4.1 Identify the	10'	Rubric and daily performance chart Form: Observation		

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	property			Students show interest and a respectful attitude towards the activity. They are willing to work collaboratively and can express their opinions. Foreign language criterion: 1, 8 and 9 Science criterion: 1	
	4.2 A and B Running dictation	20'	Rubric and daily performance chart Form: Observation	Students show interest and a respectful attitude towards the activity. They are willing to work collaboratively, they can understand their partners' discourse and express their opinions. Foreign language criterion: 1,2 8 and 9	
5 'Sink or Swim?'	Warm-up activity	5'	Rubric and daily performance chart Form: Observation	Students show interest and a respectful attitude towards the activity. They can explain comprehensibly what they remember about the previous session. Foreign language criterion: 1 and 8	
	5.2 Experiment	30'	Rubric and daily performance chart Form: Observation	Students show interest and a respectful attitude towards the activity. They are willing to work collaboratively, they can understand the instructions given in their books and communicate with their partners about the procedure. They can also collect data and describe it with the suitable scientific language. Foreign language criterion: 1, 3, 8 and 9 Science criterion: 1	
	5.5, 5.6 and 5.7	--	Experiment: checklist		Students' recordings are

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	Homework: video recorded experiment			Students can understand the instructions given in their books, collect data and describe the procedure and explain the results obtained. Students are able to use ICT's to present information. Foreign language criterion: 1, 3 and 6. Science criterion: 1	uploaded to Moodle.
6 'The Water Cycle'	Warm-up activity	5'	Rubric and daily performance chart Form: Observation	Students show interest and a respectful attitude towards the activity. They can explain comprehensibly what they remember about the previous session. Foreign language criterion: 1 and 8	
	6.1 What is the video about?	5'	Rubric and daily performance chart Form: Observation	Students show interest and a respectful attitude towards the activity. Students' can express their opinions about a video. Foreign language criterion: 1 and 8 Science criterion: 1	
	6.3 The Water cycle description	20'	Rubric and daily performance chart Form: Observation	Students show interest and a respectful attitude towards the activity. They are willing to work collaboratively. Students can explain in written the different processes of the water cycle. Foreign language criterion: 4, 8 and 9 Science criterion: 1 and 5	
	6.4 The water cycle presentation	20'	Rubric and daily performance chart Form: Observation	Students show interest and a respectful attitude	

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				towards the activity. They are willing to work collaboratively. Students can explain orally the different processes of the water cycle. Foreign language criterion: 1, 8 and 9 Science criterion: 1 and 5	
	Homework: Cool water cartoon	--	Cool water cartoon: rubric	Students can identify in a video the different processes, states and properties of water. They can also produce correct and comprehensible written texts in which they describe where they can see the different elements in the video. Students are able to use ICT's to exchange that information. Foreign language criterion: 4 and 6 Science criterion: 1	Students answer in a forum on Moodle
7 **'Saving water'**	Warm-up activity	5'	Rubric and daily performance chart Form: Observation	Students show interest and a respectful attitude towards the activity. They can explain comprehensibly what they remember about the previous session. Foreign language criterion: 1 and 8	
	Intro: Presentation	8'	Rubric and daily performance chart Form: Observation	Students show interest and a respectful attitude towards the activity. They can explain comprehensibly their opinions about the boy's behaviour. Foreign language criterion: 1 and 8 Science criterion: 1 and 6	
	7.1 Should they do that?	10'	Rubric and daily performance chart Form: Observation	Students show interest and a respectful attitude	

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				towards the activity. They can explain comprehensibly their opinions about the adults' behaviour. Foreign language criterion: 1 and 8 Science criterion: 1 and 6	
	7.3 Giving some advice to Lucy	8'	Rubric and daily performance chart Form: Observation	Students are willing to work collaboratively and can argue scientifically in written the importance of saving water and how to do it. Foreign language criterion: 4 and 9 Science criterion: 1 and 6	
8 'Water pollution'	Warm-up activity	5'	Rubric and daily performance chart Form: Observation	Students show interest and a respectful attitude towards the activity. They can explain comprehensibly what they remember about the previous session Foreign language criterion: 1 and 8	
	Intro: Presentation	10'	Rubric and daily performance chart Form: Observation	Students show interest and a respectful attitude towards the activity. They can understand the teacher's explanations and express comprehensibly their opinions/ideas about water pollution when the teacher asks them. Foreign language criterion: 1, 2 and 8 Science criterion: 1 and 10	
	8.2 Glogster	30'	Rubric and daily performance chart Form: Observation Glogster: checklist	Students show interest and a respectful attitude towards the activity. They are willing to work collaboratively. Students can argue scientifically in written the importance of avoiding water pollution, saving water and how to do it. Foreign language criterion: 4, 8 and 9 Science criterion: 1, 6 and 10	
9	Warm-up activity	5'	Rubric and daily performance chart	Students show interest and a respectful attitude	

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'Cleaning water'			Form: Observation	towards the activity. They can explain comprehensibly what they remember about the previous session Foreign language criterion: 1 and 8	
	9.3 Experiment and conclusions	15'	Rubric and daily performance chart Form: Observation	Students show interest and a respectful attitude towards the activity. They are willing to work collaboratively, they can understand the instructions given in their books and communicate with their partners about the procedure. They can also collect data and describe it with the suitable scientific language. Foreign language criterion: 1, 3, 8 and 9 Science criterion: 1	
10 'Let's get ready'	10.1 Preparing the oral presentation	55'	Rubric and daily performance chart Form: Observation Glogster: checklist	Students show interest and a respectful attitude towards the activity. They are willing to work collaboratively. Students can understand the general and specific information of the web pages where they look for information and can explain in written any topic they choose about water. Foreign language criterion: 3,4, 8 and 9 Science criterion: 1, 5, 6 or 10	The science criterion will depend on the topic students choose.
11 'Oral Presentations'	Oral presentations	55'	Oral presentation: rubric	Students are able to express orally their ideas about a topic related to water in which they have worked on. Foreign language criterion: 1 Science criterion: 5, 6 or 10	The science criterion will depend on the topic students choose

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12 **Final session**	Final test	45'	Final test: criteria	Students can produce a comprehensible written text using the appropriate scientific language in order to explain the different processes of the water cycle, to argue the importance of water for our lives and to give tips to save water. Students are able to understand the general idea and any other specific information of a text so that they fill in gaps with a suitable word or expressing if the statement is true or false. Foreign language criterion: 4 Science criterion: 1, 5, 6 and 10	

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Annex I

IMAGE SOURCES

STUDENT'S Book

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Page 3, Image 13 (Drop with glasses)
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Page 21, Image 1 (density)
"Density". *Keep 3.* http://keep3.sjfc.edu/students/efl00064/e-port/FPLESSON4.htm (Last

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Page 35, Image 1
Sang, Calvin; Smith, Mathew. "Watercycle Bob". *youtube.com*, http://www.youtube.com/watch?v=HQJq4kOLmV4, Pictures courtesy of: Calvin Sang and Mathew Smith

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Page 47, Image 7 (fresh water)
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Page 47, Image 8 (water discharge)
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Page 47, Image 9 (water treatment plant)
United States Environmental Protection Agency. "Water Treatment Proces". *Epa.org***.**
http://water.epa.gov/learn/kids/drinkingwater/watertreatmentplant_index.cfm (Last accessed, April 27, 2011) Image courtesy of the United States Environmental Protection Agency.

Page 47, Image 10 (domestic use)
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Page 47, Image 11 (waste water)
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Page 47, Image 1 (drain)
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RIVER: Grozdanov, Atanas. "River". *Images from Bulgaria.com* http://imagesfrombulgaria.com/v/Plana-mountain/River-09.jpg.html . This Picture is licensed under the Creative Commons license 2.5.

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SWAMP: Fisher, Paul (thetorpedodog). "The Swamp". *Flikr.com.* http://www.flickr.com/photos/thetorpedodog/248357507/ **.** This picture is licensed under the Attribution – Share Alike license.

STREAM: Hawgood, David. " Silk stream with reflected foliage, The Hyde. *Geograph.org.uk.* http://www.geograph.org.uk/photo/64645 . This picture is licensed under the Attribution – Share Alike license.

LAKE: Clark, Martin. "Crime Lake on the Hollinwood Branch Canal in Daisy Nook Country Park". *Geograph.org.uk* http://www.geograph.org.uk/photo/1979 This picture is licensed under the Attribution – Share Alike license.

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PowerPoint : Water Properties

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Slide 4, Image 1
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Slide 5, Image 2
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Slide 3, Image 1
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Slide 1, Image 1
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Slide 4, Image 1
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United States Environmental Protection Agency. "Water Treatment Proces". *Epa.org*. http://water.epa.gov/learn/kids/drinkingwater/watertreatmentplant_index.cfm (Last accessed, April 27, 2011) Image courtesy of the United States Environmental Protection Agency.

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Annex 2

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Annex 3

Find the CD-ROM attached to the book

INSTRUCTIONS:

1. Introduce CD-ROM
2. Execute SLCMenu.exe
3. Browse through menu

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