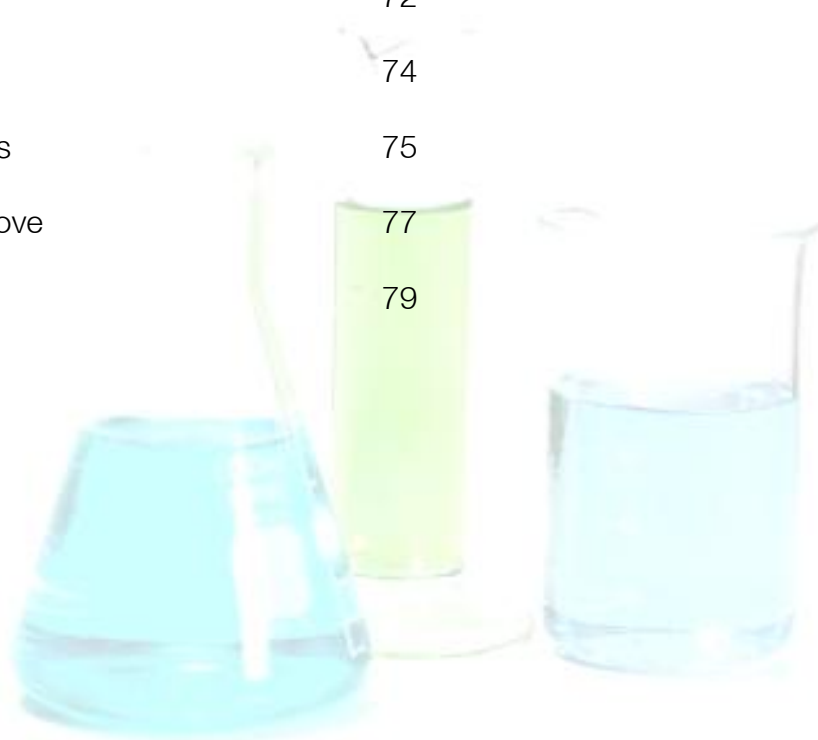


TEACHER'S NOTES

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MATERIALS BY SESSION

Materials used in **session 1**:

- ChemistryEverydayLife_ppt1.pdf in ChemistryEverydayLife_sshow folder
- Page 8 (mute slideshow worksheet 1)

Materials used in **session 2**:

- Video: “Living without chemistry”
<http://www.youtube.com/watch?v=Q3Tt2EM4e-U> (accessed on May, 2010)
- Page 9 (video worksheet)
- Page 10 (ad worksheet)
- Blog task 1
- Blog task 1 video “The Green Song”
<http://www.youtube.com/watch?v=Bg0QminAPMM> (accessed on May, 2010)
- Page 12 (word search)

Materials used in **session 3**:

- ChemistryEverydayLife_wordskey.pdf in ChemistryEverydayLife_content folder
- ChemistryEverydayLife_ppt2.pdf in ChemistryEverydayLife_content folder
- ChemistryEverydayLife_wordle.png in ChemistryEverydayLife_content folder
- Page 13 (Chemistry in diet worksheet)

Materials used in **session 4**:

- ChemistryEverydayLife_ppt2.pdf
- Page 14 (Chemistry in personal care products worksheet)
- Page 15 (Chemistry in medicine worksheet)

Materials used in **session 5**:

- ChemistryEverydayLife_ppt3.pdf in ChemistryEverydayLife_oralp folder
- Page 29 (Oral presentation handout)
- Page 20 (Reading and exercises)

Materials used in **session 6**:

- ChemistryEverydayLife_ppt2.pdf in ChemistryEverydayLife_content folder
- Page 14 (Chemistry in personal care products worksheet)
- Page 15 (Chemistry in medicine worksheet)
- Video: “Queen of clean”
<http://www.youtube.com/watch?v=eEMbJ3CBAao> (accessed on May, 2010)
- ChemistryEverydayLife_labels.pdf in ChemistryEverydayLife_content folder
- Page 17 (Chemical hazards jigsaw)
- Page 16 (Chemistry in household cleaning products worksheet)

Materials used in **session 7**:

- Page 23 (formal e-mail jigsaw)
- Page 24 (formal e-mail model)
- Page 25 (Tips handout)
- Page 26 (prompts handout)

- Blog task 2
- Blog task 2 video: “Plastic pollution”
<http://www.youtube.com/watch?v=LgP8Du7DZW8> (accessed on May, 2010)
- Page 27 (Listening – plastic pollution worksheet)

Materials used in **session 8:**

- Page 31 (Resources for the oral presentation)
- ChemistryEverydayLife_ppt4.pdf in ChemistryEverydayLife_experts folder

Materials used in **session 9:**

- Page 33 (Expert texts)
- Page 37 (Expert texts –version B–)
- ChemistryEverydayLife_ppt4.pdf in ChemistryEverydayLife_experts folder

Materials used in **session 10:**

- Page 42 (‘Are you true experts’ cut-outs)
- Page 43 (Expert’s Quiz)

Materials used in **session 11:**

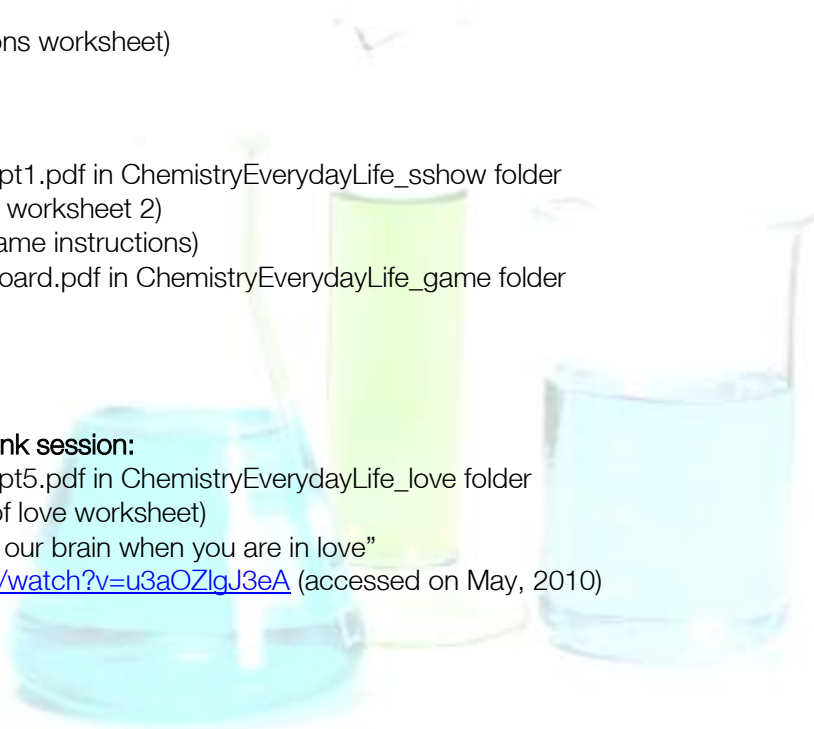
- Page 32 (Oral presentations worksheet)

Materials used in **session 12:**

- ChemistryEverydayLife_ppt1.pdf in ChemistryEverydayLife_sshow folder
- Page 45 (mute slideshow worksheet 2)
- Page 46 (consolidation game instructions)
- ChemistryEverydayLife_board.pdf in ChemistryEverydayLife_game folder
- Page 48 (card deck)
- Page 51 (feedback form)

Materials used in **the resource bank session:**

- ChemistryEverydayLife_ppt5.pdf in ChemistryEverydayLife_love folder
- Page 52 (The chemistry of love worksheet)
- Video: “What happens to our brain when you are in love”
<http://www.youtube.com/watch?v=u3aOZlgJ3eA> (accessed on May, 2010)



SESSION 1: mute slide show

Resources: computer, whiteboard, MS Office (PowerPoint), photocopies, music, beamer.

Materials used in this session:

- ChemistryEverydayLife_ppt1.pdf in ChemistryEverydayLife_sshow folder
- Page 8 (mute slideshow worksheet 1)

Assessment:

- Participating actively in class and peripheral participation (see pages 82/83).
- Completing the task.
- This task will be taken into account at the end of the unit together with the second mute slideshow worksheet to mark the progress (see page 84).

Warmer

~ 5'

T ↔ Ss

PowerPoint cover (see [ChemistryEverydayLife_ppt1.pdf](#) in the “slideshow” folder):

Ask students: “Where is chemistry?”

Introduce the topic and the **objectives of the unit** (see page 4). Elicit some answers from the students to check prior knowledge on the area.

Mute slideshow

~ 25'

slideshow → students

Give the worksheet (see page 8) to students and introduce the task. Students must individually describe what they see in each slide and how do they think each is related to chemistry.

There are 10 slides which cover the topics that will be dealt with during the unit. Each slide automatically switches every two minutes. A good ambient music during the slideshow can contribute to a nice working atmosphere.

Interactive explanation

~ 25'

Ss → T

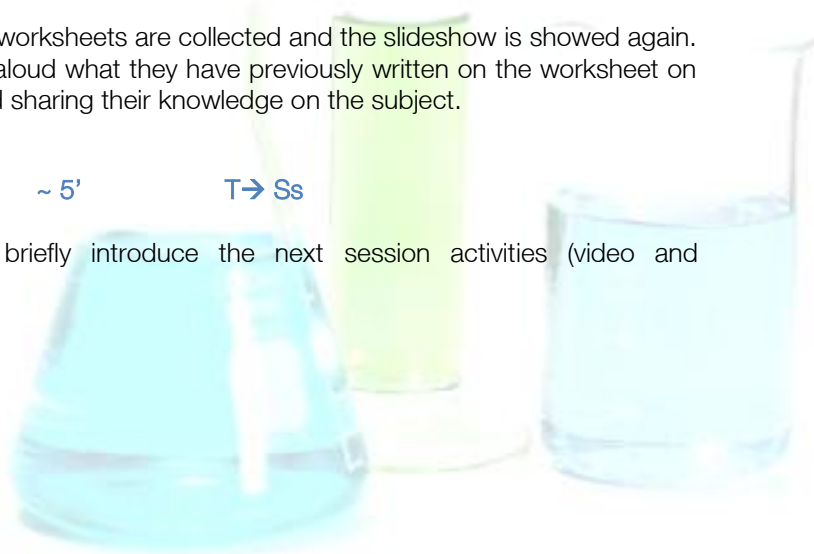
After they slideshow has finished, the worksheets are collected and the slideshow is showed again. This time, students are asked to say aloud what they have previously written on the worksheet on each slide, working collaboratively and sharing their knowledge on the subject.

Recap

~ 5'

T → Ss

Give closure to the session and briefly introduce the next session activities (video and advertisement).



SESSION 2: video + advertisement

Resources: computer, whiteboard, MS Office (PowerPoint), photocopies, beamer, Word search generator (<http://www.armoredpenguin.com/wordsearch/>), Internet connection.

Materials used in this session:

- Video: "Living without chemistry"
<http://www.youtube.com/watch?v=Q3Tt2EM4e-U> (accessed on May, 2010)
- Page 9 (video worksheet)
- Page 10 (ad worksheet)
- Blog task 1
- Blog task 1 video "The Green Song" <http://www.youtube.com/watch?v=Bg0QminAPMM> (accessed on May, 2010)
- Page 12 (word search)

Assessment:

- Participating actively in class and peripheral participation (see page 82/83).
- Completing the task. (see page 84)
- Posting an adequate comment on the blog will be checked (see page 82/83).

Warmer

~ 5'

T ↔ Ss

Quickly elicit some information about what was done on the previous session and introduce the following task. Hand in the video worksheet (see page 9).

Video: pre-viewing activity

~ 5'

Ss ↔ T

Exercise 1 from the worksheet. Give some minutes for students to finish it and then briefly go over it with the whole group.

KEY: personal care products, clothes, cosmetics, food, etc.

Video: while-viewing activity

~ 10'

Ss ↔ T

Exercise 2 from the worksheet. Show the "Living without chemistry" video (<http://www.youtube.com/watch?v=Q3Tt2EM4e-U>). Once the video ends, go over the exercise with the whole group. Make sure all the topics that are going to be covered later on in the unit (housekeeping products, food, personal care products and medicines) are mentioned.

KEY: sofa, TV, tiles, paint, furniture, medicines, housekeeping products, personal care products, etc.

Video: after-viewing activity

~ 10'

Ss ↔ T

Exercise 3 from the worksheet. Give some minutes for students to finish it and then briefly go over it with the whole group.

KEY: (for example) "If I didn't have painkillers, I would use plants instead", etc.

Video: follow-up

~ 5'

Ss ↔ T

Exercise 4 from the worksheet. Elicit this answer from the group to see whether they agree or not.

KEY: According to the video, it's completely necessary.

Advertisement exercise

~ 5'

Ss↔ T

Exercise 1 from the ad worksheet (see page 10). Make a student read the text on the box and discuss the meaning of 'chemophobia'. Elicit answers from the group to see whether they agree or not in the results of exercise 1.

KEY: A product which does not contain harmful chemicals.

Video and ad comparison

~ 10'

Ss↔ T

Exercise 2 from the worksheet. Elicit this answer from the group to see whether they agree or not. The point of this activity is for students to realize that both the video and the ad have been created according to certain business interests, the video being created by a medicine laboratory and the ad being created by a cosmetics company.

KEY: They are two different companies. On the one hand, the pharmacological products company shows chemistry as a basic feature of our everyday lives; while on the one hand, the cosmetics company behind the ad shows how chemistry is harmful for our body.

Recap

~ 5'

Ss↔ T

Exercise 3 from the worksheet. Elicit this answer from the group to see whether they agree or not.

KEY: Chemistry is neither good nor bad by itself, but it can be harmful up to the usage.

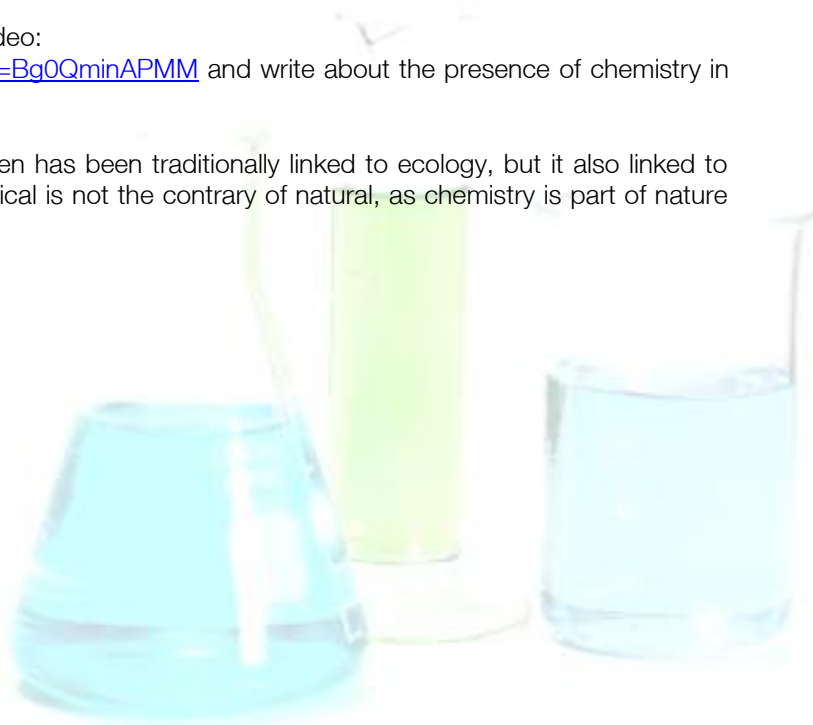
ABOUT THE BLOG: we offer the blog site we created as a model. The teacher can create a blog to generate the blog tasks.

Present the blog task 1 and the word search for homework (see page 12).

At the blog they have to watch a video:

<http://www.youtube.com/watch?v=Bg0QminAPMM> and write about the presence of chemistry in nature and manufactured products.

BLOG TASK 1 KEY: The color green has been traditionally linked to ecology, but it also linked to the color of chemical waste. Chemical is not the contrary of natural, as chemistry is part of nature itself.



SESSION 3: content 1

Resources: computer, whiteboard, MS Office (PowerPoint), Moodle, photocopies, beamer, Science teacher (CLIL), Wordle (www.wordle.net)

Materials used in this session:

- ChemistryEverydayLife_wordskey.pdf in ChemistryEverydayLife_content folder
- ChemistryEverydayLife_ppt2.pdf in ChemistryEverydayLife_content folder
- ChemistryEverydayLife_wordle.png in ChemistryEverydayLife_content folder
- Page 13 (Chemistry in diet worksheet)

Assessment:

- Participating actively in class and peripheral participation.(see page 82/83)
- Completing the tasks (see page 84).

Warmer

~ 5'

T↔ Ss

Check that students have done the homework and inform them that they word search key will be uploaded to their Moodle for self-assessment purpose. (see [ChemistryEverydayLife_wordskey.pdf](#)).

Slide 1 - PowerPoint cover

~ 5'

T↔ Ss

Open the “Chemistry in Everyday life” PowerPoint (see [ChemistryEverydayLife_ppt2.pdf](#)). Ask them if they think there is chemistry in the photo they see. Elicit some answers from the students.

Slide 2 – Wordle

~ 5'

Ss↔ T

Ask some students to read aloud some of the words they see and ask them their meaning. (see [ChemistryEverydayLife_wordle.png](#)). Tell them that, by the end of the lesson, they will know all of them –hopefully–. Hand in the Chemistry in Diet worksheet (see [page 13](#)).

Exercise 1

~ 5'

Ss↔ T

Introduce the concept of food additives (a substance that is not originally present in the food it is featured). Give some minutes for students to finish it and then briefly go over it with the whole group.

KEY: sweets, canned food, fruit, vegetables, juice, yogurt, etc.

Slide 3

~ 5'

Ss↔ T

Ask students to look at the pictures and guess what the food additive that is featured in each product is.

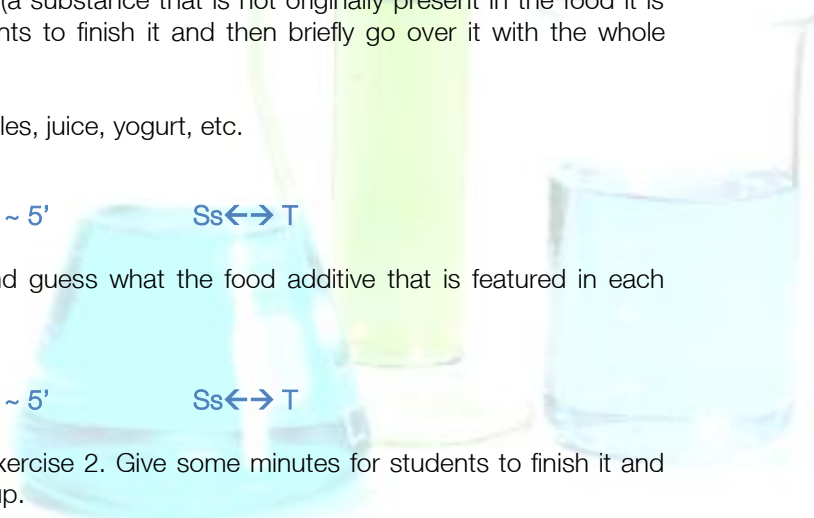
Exercise 2

~ 5'

Ss↔ T

Afterwards, ask students to complete exercise 2. Give some minutes for students to finish it and then briefly go over it with the whole group.

KEY: 1-f, 2-h, 3-e, 4-g, 5-c, 6-a, 7-d, 8-b



Slide 4

~ 5'

T → Ss

Briefly introduce the types of food additives that we are going to work with.

Exercise 3

~ 5'

Ss ↔ T

Ask students to complete exercise 3. Give some minutes for students to finish it and then briefly go over it with the whole group.

KEY: food coloring: snacks, cola / flavour enhancer: chips, juices / flavour: yogurt, cereal / sweetener: sweets, diet cola / preservatives: canned food, prepared food

Slide 5

~ 5'

T ↔ Ss

Ask students to take a look at the label which says 'FOOD 1'. Tell them that it is a very common label and that it belongs to a product that they eat very often. Read the component list aloud and ask them to guess which product is it.

KEY: it belongs to a tomato sauce can. Lycopene is one of the best clues to guess it right.

Introduce the concept of 'E numbers'.

"5 minute paper"

~ 5'

S → T

To finish with the session, students are asked to take a piece of paper and write down what was the most important thing that they have learned during that session. Students hand in a brief written answer before they leave class.

This can be used to help planning future sessions.



SESSION 4: content 2

Resources: computer, whiteboard, MS Office (PowerPoint), photocopies, beamer, Science teacher (CLIL)

Materials used in this session:

- ChemistryEverydayLife_ppt2.pdf
- Page 14 (Chemistry in personal care products worksheet)
- Page 15 (Chemistry in medicine worksheet)

Assessment:

- Participating actively in class and peripheral participation (see page 82/83).
- Completing the tasks (see page 84).

Warmer

~ 5'

T ↔ Ss

Quickly elicit some information about what was done on the previous session and introduce the following task. Hand in the Chemistry in personal care products worksheet (see page 14).

Exercise 1

~ 5'

Ss ↔ T

Give some minutes for students to finish it and then briefly go over it with the whole group.

KEY: soap, toothpaste, mouthwash, deodorant, etc.

Slide 7

~ 5'

Ss ↔ T

Continue with the Chemistry in everyday life PowerPoint (see [ChemistryEverydayLife_ppt2.pdf](#)). Ask students to take a look at the products on the slide and guess what their name is and what they are used for.

Exercise 2

~ 5'

Ss ↔ T

Give some minutes for students to finish it and then briefly go over it with the whole group.

At this point, it is important to remark to students that they just have to be able to find certain key words, which work as clues in the description to find the solution, and not to understand the long and intricate chemical compounds.

KEY: shampoo, deodorant, talcum powder, mouthwash, shaving gel, toothpaste.

Slide 8 and 9

~ 5'

T → Ss

Introduce the presence of chemistry in cosmetics.

Exercise 3

~ 5'

T → Ss

Give exercise 3 from the worksheet as homework for the next day and hand in the next worksheet. We are moving on to the next topic, which deals with the presence of chemistry in medicine.

KEY: exfoliant, skin care, works, acidity, dose, in order to

Slide 10

~ 5'

T \leftrightarrow Ss

Show them both symbols and ask them if they are familiar with them. Elicit some answers from the students and finally give the answers.

Exercise 1

~ 5'

Ss \leftrightarrow T

Hand in the Chemistry in medicine worksheet (see page 15). Give some minutes for students to finish it and then briefly go over it with the whole group.

KEY: painkillers, tablets, pills, cough syrup, band aids, alcohol, peroxide, etc.

Slide 11

~ 5'

T \rightarrow Ss

Introduce the presence of chemistry in medicine.

Slide 12

~ 5'

Ss \leftrightarrow T

Ask students if they know how to solve the problems that appear on the slide and which products do they normally use. Discuss the results together and introduce the new vocabulary.

KEY: toothache – ibuprofen and Epsom salts, stomachache – ibuprofen and Enos salts, insect bites – 'Afterbite', headache – ibuprofen, fever – ibuprofen, constipation – milk of magnesia

Exercise 2

~ 5'

Ss \leftrightarrow T

If there is still time, go over exercise 2 and if not, give it as homework together with exercise 3 from the Chemistry in personal care products worksheet.

KEY: 1-Enos salts, 2-magnesium sulfate, 3-used as a laxative, 4-acetylsalicylic acid, 5-bicarbonate of soda, 6-hydrogen peroxide, 7-ascorbic acid

Give closure to the session.



SESSION 5: critical reading

Resources: computer, whiteboard, MS Office (PowerPoint), photocopies, beamer, Moodle.

Materials used in this session:

- ChemistryEverydayLife_ppt3.pdf in ChemistryEverydayLife_oralp folder
- Page 29 (Oral presentation handout)
- Page 20 (Reading and exercises)

Assessment:

- Participating actively in class and peripheral participation (see page 82/83).
- The worksheet will be collected at the end of the class (see page 79).

Warmer

~ 5'

T ↔ Ss

Ask some quick questions to students about the previous session. Afterwards, introduce the oral presentation as a key part of the assessment of the unit.

Explaining procedures

~ 10'

Ss ↔ T

Students must arrange themselves in couples or groups of three. Each group will be given a different topic. There are 6 topics that must be covered. The assessment criteria for the oral presentation is shown (see page 81). Go through the assessment criteria together. It can be uploaded to the Moodle afterwards or given as photocopies.

Choosing a topic

~ 5'

Ss ↔ T

Open the 'List of topics' PowerPoint presentation (see ChemistryEverydayLife_ppt3.pdf), ask them if they are familiar with the images (they should, since they are the same as the ones in the slideshow from the first session). Ask students if they have any preference in the topics listed. Assign the topics.

Oral presentation handout

~ 5'

Ss ↔ T

Give the handout to students and go over it together. Make the list of resources available at the Moodle (see page 29).

Reading

~ 20'

S ↔ S

Students arrange themselves in groups of 4 and are given the reading with the exercises (see page 20). The assessment criteria for the critical reading is shown (see page 79). Go through the assessment criteria together. It can be uploaded to the Moodle afterwards or given as photocopies. They work together to understand the text and answer the questions.

KEY:

1. she suffered an allergic reaction due to the hair dye product she chose.
2. It can cause serious allergic reactions and for that reason it is banned in some countries.
3. She suffered an allergic reaction due to a hair dye product as well.
4. to swell up: b / patch test: a / to ban: c / to concern: c / to sympathize: c / sensitive: a

5. To inform but also to persuade stop using those potentially dangerous products.
6. People should be really careful with the products they choose to use.
7. To people who can potentially be in the same situation.
8. opinion. the point is that the author is not objective at all since she had been involved in a similar incident when she was 16.

Recap

~ 5'

T↔ Ss

Collect the reading worksheets and give closure to the session.



SESSION 6: content 3

Resources: computer, whiteboard, MS Office (PowerPoint), photocopies, beamer, Internet connection, Science teacher (CLIL)

Materials used in this session:

- ChemistryEverydayLife_ppt2.pdf in ChemistryEverydayLife_content folder
- Page 14 (Chemistry in personal care products worksheet)
- Page 15 (Chemistry in medicine worksheet)
- Video: “Queen of clean”
<http://www.youtube.com/watch?v=eEMbJ3CBAao> (accessed on May, 2010)
- ChemistryEverydayLife_labels.pdf in ChemistryEverydayLife_content folder
- Page 17 (Chemical hazards jigsaw)
- Page 16 (Chemistry in household cleaning products worksheet)

Assessment:

- Participating actively in class and peripheral participation (see page 82/83).
- Completing the tasks (see page 84).

Warmer

~ 5'

T↔ Ss

Correct exercise 3 from the Chemistry in personal care products worksheet (see page 14) and exercise 2 from the Chemistry in medicine worksheet if necessary (see page 15). Briefly go over it with the whole group. Continue with the content ppt (see ChemistryEverydayLife_ppt2.pdf).

Slide 13

~ 5'

T↔ Ss

Show the video “Queen of clean”:

<http://www.youtube.com/watch?v=eEMbJ3CBAao>

Introduce the topic of the session, which is the presence of chemistry in housekeeping products. Ask students to briefly summarize the video.

Slide 14

~ 5'

Ss↔ T

Ask students if they have similar products at home and what are they used for. Ask them to guess their use by their shape. Go over the name of the products together.

Slide 15 and label photos

~ 10'

S↔ S, Ss↔ T

Ask students if they are familiar with the symbols in the slide and introduce the concept of chemical hazards.

Hand in the Household cleaning products label photographs (see ChemistryEverydayLife_labels.pdf). Ask students to check what do these products have in common –all their labels contain chemical hazard symbols–. Elicit some answers from the students.

Chemical hazards jigsaw

~ 10'

S↔ S, Ss↔ T

Give a set of cutouts to each pair of students and ask them to arrange them in four columns: symbol, name in Catalan, name in English and description (see page 17). When they are done, go over the solution together in slide 16.

CATERING FOR DIVERSITY: the rows of the jigsaw are colored in plain white, light grey and dark grey. This is given as a clue to help students with a lower level succeed in this task.

Chemical hazards worksheet ~ 10' Ss \leftrightarrow T

Hand in the worksheet for students to fill in (see page 16). Give some minutes for students to finish it and then briefly go over it with the whole group.

Slide 17 and 18 ~ 5' T \rightarrow Ss

Briefly talk about the dangers of household keeping products.

Slide 19 ~ 5' T \leftrightarrow Ss

Ask students a set or recap questions. Give closure to the session.



SESSION 7: writing a formal e-mail

Resources: computer, whiteboard, MS Office (PowerPoint), photocopies, beamer, Internet connection, Science teacher (CLIL), jigsaw cutouts.

Materials used in this session:

- Page 23 (formal e-mail jigsaw)
- Page 24 (formal e-mail model)
- Page 25 (Tips handout)
- Page 26 (prompts handout)
- Blog task 2
- Blog task 2 video: "Plastic pollution"
<http://www.youtube.com/watch?v=LgP8Du7DZW8> (accessed on May, 2010)
- Page 27 (Listening – plastic pollution worksheet)

Assessment:

- Participating actively in class and peripheral participation (see page 82/83).
- The worksheet will be collected at the end of the class (see page 80).

Warmer

~ 5'

T ↔ Ss

Ask some of the recap questions from the previous day. Afterwards, ask students if they write e-mails and who do they write e-mails to. Ask them if they have ever written a formal e-mail and, if so, to whom it was addressed.

Formal e-mail jigsaw

~ 5'

S ↔ S, Ss ↔ T

Students are given a set of cutouts and they must order it (see page 23). When they finish, go over the results with the whole group.

Formal e-mail model

~ 10'

Ss ↔ T

Hand in the model (see page 24) and ask them to infer what makes this e-mail formal. Note their observations in the blackboard and ask them to write them down.

Tips handout

~ 5'

Ss ↔ T

Hand in the tips list (see page 25) and ask them to add any other that the group has found out.

Writing task

~ 20'

S ↔ S, individual work

Students are asked to recollect all what they have been doing so far and write a reply to Margaret Green as if they were Mr. Irons, arguing the fact that chemistry is an important part of everyday life.

The assessment criteria for the formal e-mail is shown (see page 80). Go through the assessment criteria together. It can be uploaded to the Moodle afterwards or given as photocopies.

Hand in the prompts handout to students so they can support their writing with its content (see page 26).

Recap

~ 5'

T↔ Ss

Collect the students' production and ask students to print out their resources for the oral presentation. Next session will be devoted to the preparation of the oral presentation and its poster.

Inform students that a new entry has been added at the blog with a video (see <http://chemistryprojectsantquirze.blogspot.com/>): <http://www.youtube.com/watch?v=LgP8Du7DZW8> and that it is about plastic pollution.

A listening exercise regarding that video has been uploaded to the Moodle (see page 27). Students are asked to complete the listening exercise as homework and contribute to the blog with a comment on the entry with their opinion on the problem of plastic pollution.

BLOG TASK SUGGESTED KEY 2: recycling, using biodegradable plastic bags, etc.



SESSION 8: preparing the oral presentation

Resources: computer, whiteboard, MS Office (PowerPoint), photocopies, beamer, Internet connection, Science teacher (CLIL), Google Docs, Moodle, Youtube.

Materials used in this session:

- Page 31 (Resources for the oral presentation)
- ChemistryEverydayLife_ppt4.pdf in ChemistryEverydayLife_experts folder

Assessment:

- Participating actively in class and peripheral participation (see page 82/83).
- This session is dedicated to work on the FINAL OUTCOME of the unit (see page 81).

Warmer

~ 5'

T → Ss

Inform students that a key for the listening exercise will be uploaded to the Moodle.

KEY:

- 1.- remote
- 2.- earth
- 3.- bloodstream
- 4.- tissues
- 5.- harms
- 6.- particles
- 7.- wildlife

- 8.- chain
- 9.- consumption
- 10.- waste
- 11.- recover
- 12.- crisis
- 13.- disposable
- 14.- poison

Ask students to sit together with their partners from the oral presentation, bring out their resources (see page 31) and work on the structure and the layout of their poster.

Briefly ask the group about their point of view on plastic pollution.

Presentation preparation

~40'

T ↔ Ss

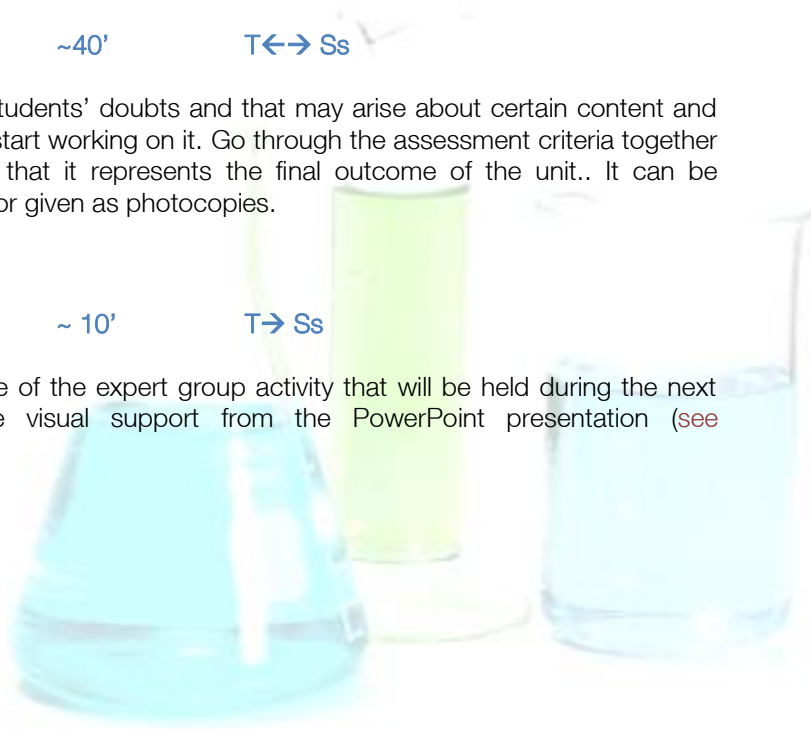
This session aims at clarifying the students' doubts and that may arise about certain content and form areas and also to get them to start working on it. Go through the assessment criteria together again (see page 81), emphasizing that it represents the final outcome of the unit.. It can be uploaded to the Moodle afterwards or given as photocopies.

Recap

~ 10'

T → Ss

Introduce students to the procedure of the expert group activity that will be held during the next two sessions. You can use the visual support from the PowerPoint presentation (see ChemistryEverydayLife_ppt4.pdf).



SESSION 9: expert group activity 1

Resources: computer, whiteboard, MS Office (PowerPoint), photocopies, beamer

Materials used in this session:

- Page 33 (Expert texts)
- Page 37 (Expert texts –version B–)
- ChemistryEverydayLife_ppt4.pdf in ChemistryEverydayLife_experts folder

Assessment:

- Participating actively in class and peripheral participation (see page 82/83).
- Completing the quiz. At the end of the following session, students are taking a quiz so the teacher checks that they have been working hard (see page 84).

NOTE: in our case, the group was split in two with one teacher in each half.

Warmer ~ 5' T → Ss

Students are told that on that session they will start working with the expert group activity and that the last part of the activity will be held on the next session.

Step 1 ~ 5' S ↔ S

Go through the Expert group PowerPoint again (see [ChemistryEverydayLife_ppt4.pdf](#)). Four students sit together. They form a team. They choose an icon. Each icon represents a topic.

CATERING FOR DIVERSITY: two versions of the expert texts are available: 1 (see page 33) and 1B (see page 37). Both versions share the same exact content but the B texts are simpler in terms of language and syntax.

Step 2 ~ 5' S ↔ S

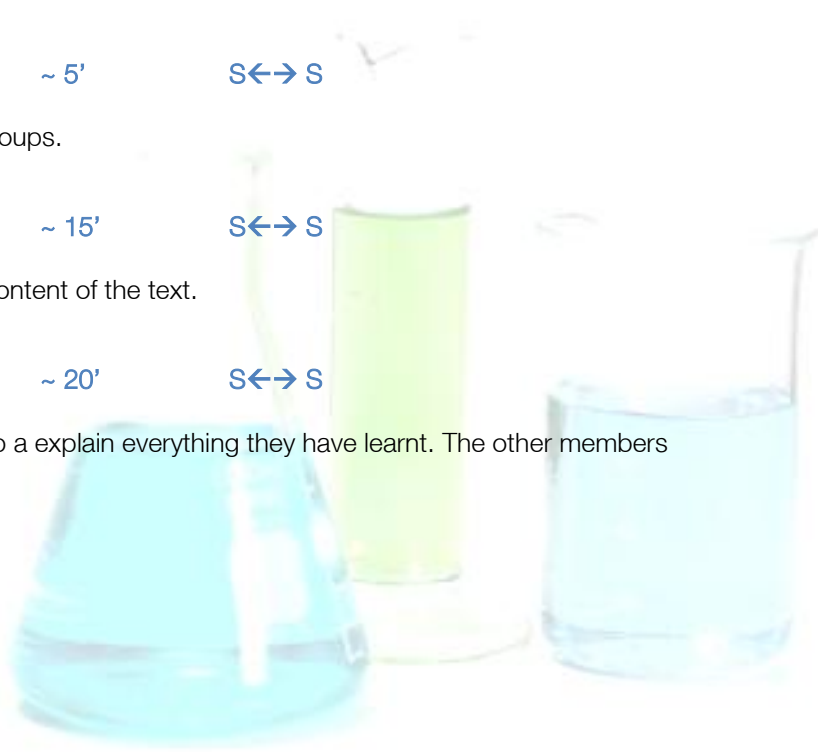
Students with the same icon join in groups.

Step 3 ~ 15' S ↔ S

Students work together to learn the content of the text.

Step 4 ~ 20' S ↔ S

Students go back to their home group a explain everything they have learnt. The other members are allowed to take notes.



SESSION 10: expert group activity 2

Resources: computer, whiteboard, MS Office (PowerPoint), photocopies, beamer, a prize for the winning team (e.g. sweets, books, extra points for the exam, etc.)

Materials used in this session:

- Page 42 ('Are you true experts' cut-outs)
- Page 43 (Expert's Quiz)

Assessment:

- Participating actively in class and peripheral participation.
- Completing the quiz. At the end of this session, students are taking a quiz so the teacher checks that they have been working hard (see page 84).

NOTE: in our case, the group was split in two with one teacher in each half.

Warmer ~ 5' T → Ss

Students are told that on that session they will finish the expert group activity. There will be a competition and the winning team will get a prize for their hard work. Students sit in their home teams.

Step 5 ~ 10' S ↔ S

Students go back to their expert team and are given a set of questions to make sure that all of them are really able to remember the key points of each text (see page 42).

Step 6 ~ 10' S ↔ S

Students go back to their home team and make sure that the whole team can answer all the questions that have been given for each topic.

Step 7 ~ 10' S ↔ S

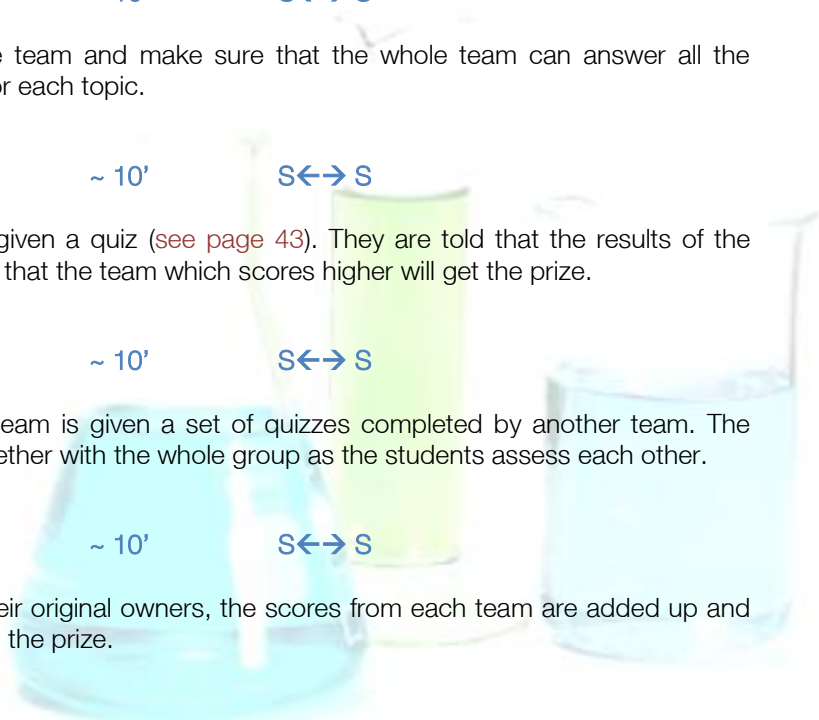
Students sit separately and are given a quiz (see page 43). They are told that the results of the whole team will be added up and that the team which scores higher will get the prize.

Step 8 ~ 10' S ↔ S

The quiz is collected and each team is given a set of quizzes completed by another team. The teacher goes over the results together with the whole group as the students assess each other.

Step 9 ~ 10' S ↔ S

The quizzes are given back to their original owners, the scores from each team are added up and the team with the best score gets the prize.



Expert's Quiz key (see page 43):

1. b (1 point)
2. FALSE (1 point) –they can be harmful for allergic reasons, for example.-
3. Ancient Egypt (1 point) Greeks (0.5 points) Romans (0.5 points)
4. c (1 point)
5. bicarbonate of soda→Sodium bicarbonate, Vitamin C→Ascorbic acid, Enos salts→Sodium citrate (0.3 if they got 1 right, 0.6 if they got 2 right, 1 point if they get 3 right)
6. c (1 point)
- 7.FALSE (Alkalies are good for removing those stains)
8. ...it can cause a lethal reaction / it can cause death / it produces toxic fumes (2 points)

Expert's Quiz key - 3 topics ed. - (see page 44):

NOTE: The experts' group activity is flexible and can also be done with 3 topics, basically for classroom management reasons.

CATERING FOR DIVERSITY: In our case, when we implemented the activity in one of the groups, some students could not attend to that session and that resulted in a group split in two where on the halves consisted of 10 students.

We decided to group students in two groups of 3 and one group of 4, consequently working with just 3 of the initial topics, with one of the students with most difficulties having the support of another of the members of his "home" group, thus catering for the diversity of that group.

1. b (1 point)
2. FALSE (1 point) –they can be harmful for allergic reasons, for example.-
3. Ancient Egypt (1 point) Greeks (0.5 points) Romans (0.5 points)
4. c (1 point)
5. bicarbonate of soda→Sodium bicarbonate, Vitamin C→Ascorbic acid, Enos salts→Sodium citrate (0.3 if they got 1 right, 0.6 if they got 2 right, 1 point if they get 3 right)
6. c (1 point)
7. TRUE
8. ...plants (1 point)
9. deodorant, shampoo, mouthwash, make-up, lipstick, mascara, etc. (0.2 per right item)



SESSION 11: oral presentations

Resources: computer, whiteboard, MS Office (PowerPoint), photocopies, beamer, Internet connection, Science teacher (CLIL)

Materials used in this session:

- Page 32 (Oral presentations worksheet)
- Page 82 (Students' participation self assessment)

Assessment:

- Participating actively in class and peripheral participation(see page 82/83).
- The oral presentations represent the FINAL OUTCOME of the unit (see page 81).
- Completing the worksheet (see page 84).

Warmer

~ 5'

T → Ss

Students are given a worksheet where they must answer the question that their classmates are explaining. They also have to write down the new vocabulary and rate them in a scale from 1 to 10 (see page 32).

Oral presentations

~ 5' each

Ss → Ss

Students present their work. Approximately, 6 presentations can be held in one session.

NOTE: in our case, the group was split in two with one teacher in each half assessing the presentations simultaneously. Otherwise, it would probably take more than one session.

Recap

~ 10'

T ↔ Ss

Collect the worksheets and revise the concepts that have been explained. You can also give some feedback. Tell students that on the next session they will have some consolidation activities (not an exam!) and that they should revise all the materials.

Hand in the assessment criteria for the participation (see page 81). Go through the assessment criteria together. It can be uploaded to the Moodle as an alternative, instead of given as photocopies. Students have to complete the self assessment participation document and hand it in before they leave.



SESSION 12: consolidation activities

Resources: computer, whiteboard, MS Office (PowerPoint), photocopies, music, beamer, board, counters, card deck, coins

Materials used in this session:

- ChemistryEverydayLife_ppt1.pdf in ChemistryEverydayLife_sshow folder
- Page 45 (mute slideshow worksheet 2)
- Page 46 (consolidation game instructions)
- ChemistryEverydayLife_board.pdf in ChemistryEverydayLife_game folder
- Page 48 (card deck)
- Page 51 (feedback form)

Assessment:

- Participating actively in class and peripheral participation (see page 82/83).
- Completing the task. This task takes into account the progression from Worksheet 1 at the beginning of the unit, together with Worksheet 1 (see page 84).

Warmer

~ 5'

T ↔ Ss

Ask students if they remember what they did on the first session of the project. Tell students that they will be showed the same slideshow (see [ChemistryEverydayLife_ppt1.pdf](#)) again and that they should be able to give a lot more information at that moment that they did on the first session.

Mute slideshow

~ 15'

slideshow → students

Give the worksheet to students (see [page 45](#)). Students must individually describe what they see in each slide and how do they think each is related to chemistry.

There are 10 slides which cover the topics that have been dealt with during the unit. Each slide automatically switches every two minutes. Again, a good ambient music during the slideshow may contribute to a nice working atmosphere.

In case the resource bank has not been implemented, the last slide can be omitted. Afterwards, collect the worksheets.

Synthesis game introduction

~ 5'

T → Ss

Ask students to get together in groups of four. Tell them that they are going to play a synthesis game and introduce them to the mechanics and rules of the game (see [page 46](#)). Go together over the rules of the game. Hand in the board (see [ChemistryEverydayLife_board.pdf](#)), the counters, the card deck (see [page 48](#)) and the coins.

Synthesis game

~ 15'

S ↔ S

Students play the synthesis game. If some fast-finishers finish a match quickly, they are asked to change the groups and play another match.

Recap

~ 10'

S→T

To finish with, students are given the feedback form (see page 51). They need not to answer the questions in English if they do not want to, even though they are encouraged to do so. Students hand it in before they leave the class.

This can be used to help planning future implementations of the unit, besides containing precious information on the feelings on the students towards the whole unit once they have finished it.

The global assessment criteria for the unit is shown (see page 84). Go through the assessment criteria together. The criteria are the same as the objectives explained on the first session. It can be uploaded to the Moodle afterwards or given as photocopies. This document can be given as self assessment too, in contrast with the teacher's version, so the teacher and the student can negotiate the mark.



RESOURCE BANK: The chemistry of love

NOTE: This is material for an extra session of the unit. It can be used in case of lengthening of the project or for schedule adjustments. This session is linked with Slide 10 from the slideshow on the first and last sessions.

Resources: computer, whiteboard, MS Office (PowerPoint), photocopies, beamer, Internet connection, Science teacher (CLIL)

Materials used in this session:

- ChemistryEverydayLife_ppt5.pdf in ChemistryEverydayLife_love folder
- Page 52 (The chemistry of love worksheet)
- Video: “What happens to our brain when you are in love”
<http://www.youtube.com/watch?v=u3aOZlgJ3eA> (accessed on May, 2010)

Assessment:

- Participating actively in class and peripheral participation (see page 82/83).
- Completing the tasks (see page 84).

Warmer

~ 5'

T ↔ Ss

Show the cover of the PowerPoint presentation on love (see [ChemistryEverydayLife_ppt5.pdf](#)). Tell students that they are going to this will be the topic.

Move on to slide 1. The foot notes of the PowerPoint presentation contain the entire teacher’s data. Elicit some answers from students. Ask them if they think that the word “chemistry” would be a good choice.

Hand in the worksheet (see [page 52](#)).

Exercise 1

~ 5'

S ↔ S, T ↔ Ss

Students are asked to complete the exercise and compare their results with their partner. Afterwards, go over the exercise with the whole group.

Slide 3

~ 5'

T ↔ Ss

The teacher leads a brief discussion on the questions in the slide.

Video

~ 10'

T ↔ Ss

Show the video “What happens to our brain when you are in love”:

<http://www.youtube.com/watch?v=u3aOZlgJ3eA>

Ask students to briefly comment on the video.

The video shows how different parts of the brain get activated in front of a friend and in front of a beloved. Afterwards, go through slides 4, 5 and 6 together with the group.

Exercise 2

~ 5'

T↔ Ss

Students are asked to complete the exercise.

KEY:

Dopamine- It is commonly associated with the pleasure system of the brain.

Phenylethylamine-It contributes to that “being on top of the world” feeling.

Serotonin-It controls impulses.

Norepinephrine-It induces euphoria in your brain.

Slide 7

~ 5'

T↔ Ss

Brief interactive explanation.

Exercise 3

~ 5'

T↔ Ss

Students are asked to complete the exercise.

KEY:

Endorphins ,Endorphins, Oxytocin, Endorphins, Vasopressin, Oxytocin, Vasopressin

Slide 8

~ 5'

T↔ Ss

A quick recap interactive explanation of the chemical basis of love.

Exercise 4

~ 5'

T↔ Ss

Students discuss that fact. Afterwards, move on to slide 9 where the answer is revealed.

KEY: they interfere. This is related to how, as times goes by, the feeling of closeness increases as the mad love sensation diminishes.

Exercise 5

~ 5'

T↔ Ss

Give some minutes for students to finish it and then briefly discuss the results with the whole group.

KEY: there is an important social perspective as well!



ASSESSMENT: Rubrics & Checklists

About the assessment: all these materials are meant to be shared with students in advance –via Moodle or photocopies–, so the objectives and the assessment for the unit become completely transparent to them. Some of these materials can be used for peer assessment and self assessment purpose too.

CRITICAL READING (SESSION 5)

Student's name:

The assessment for this task follows the criteria below:

Language and readability

1	2	3	4	5
The text is hard to understand by a willing reader.	Some sentences are basically well formed. There are mistakes which make the text hard to read.	The text shows basic sentence and paragraph organization. Some sentences show grammar, lexical and /or spelling mistakes which may affect comprehensibility.	English is fluent. Sentences are basically well formed. There are a number of mistakes which do not seriously affect comprehensibility.	English fulfils the expected standards. The mistakes do not affect comprehensibility.

Critical approach to the text

0 (not found)

1 (developing)

2 (accomplished)

	0	1	2
Identifies facts			
Identifies opinion			
Provides justification			
Justification is sufficiently developed			
Reacts to the text			

FORMAL E-MAIL (SESSION 7)

Student's name:

The assessment for this task follows the criteria below:

Language and readability

1	2	3	4	5
The text is hard to understand perhaps because the student does not know what he/she is talking about.	There are mistakes which make the text hard to read.	There are some grammar and spelling mistakes which do not affect comprehensibility.	English is fluent and basically correct. There might be some mistakes which do not affect comprehensibility.	English is over the expected standards. There might be some mistakes which do not affect comprehensibility.

Register and formal characteristics

0 (wrong approach) 1 (accomplished)

	0	1
Uses an informative subject line.		
Writes the most important information first.		
Uses paragraphs to keep the email clear and easy to read.		
Does not use CAPITAL LETTERS to write whole words.		
Does not use of abbreviations.		



Student's participation: Self-assessment

Student's name:

KEY:

1- A little bit. 2- Sometimes. 3- Often. 4- Most of the time.

I have paid attention.	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4
I have contributed when the teacher or my classmates asked me to.	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4
I have contributed actively with my partner or in small groups.	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4
I have contributed actively in big groups and with all the class.	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4
I have talked in English.	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4
I have done the homework.	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4
I have posted comments in the blog.	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4
I have worked hard. I tried hard.	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4

Do you want to tell anything else to the teacher about your participation?

Student's participation: Teacher's Assessment

This document takes into account the teacher's perspective, in contrast with the student's self assessment document. This can be used as a source of negotiation under the light of the final mark of the unit.

KEY:

- 1- The student has paid little attention.
- 2- The student has paid attention and made few contributions.
- 3- The student has paid attention and contributed with his/her partner and in/or small group.
- 4- The student has paid attention and contributed openly in big group and/or with all the class.
- 5- The student has paid attention and made spontaneous contributions to the whole group.

STUDENT'S NAMES

DEGREE OF PARTICIPATION

	1	2	3	4	5
	1	2	3	4	5
	1	2	3	4	5
	1	2	3	4	5
	1	2	3	4	5
	1	2	3	4	5
	1	2	3	4	5
	1	2	3	4	5
	1	2	3	4	5
	1	2	3	4	5

COMMENTS:

Chemistry in everyday life: Global Assessment Checklist

According to the objectives of the unit.

Student's name:

KEY:

1	2	3	4
Beginning	Developing	Accomplished	Exemplary

By the end of this unit, you are able to...

explain the presence of chemistry in our everyday life.	1	2	3	4
---	---	---	---	---

give your opinion about the use of chemical substances in daily products.	1	2	3	4
---	---	---	---	---

discuss whether chemistry is just involved in manufactured products or not.	1	2	3	4
---	---	---	---	---

find and exchange information on the chemical explanation of some everyday facts.	1	2	3	4
---	---	---	---	---

outline some phenomena of our everyday lives from a scientific perspective.	1	2	3	4
---	---	---	---	---

critique the approach to a piece of work that the author has chosen.	1	2	3	4
--	---	---	---	---

contrast colloquial and formal registers and use them appropriately in e-mails.	1	2	3	4
---	---	---	---	---

COMMENTS:

Appendix 1: Videos used in the Unit

Session 1

“Living without chemistry” by Federchimica

<http://www.youtube.com/watch?v=Q3Tt2EM4e-U> (accessed on May, 2010)



Session 6

“Queen of clean” by Sustainlane for *The Unsustainables*

<http://www.youtube.com/watch?v=eEMbJ3CBAao> (accessed on May, 2010)



Resource bank

“What happens to our brain when you are in love” by Dr Helen Fisher for *Chemistry.com*

<http://www.youtube.com/watch?v=u3aOZlgJ3eA> (accessed on May, 2010)



Blog tasks

“The Green Song” by 180 Amsterdam for *MTV Switch*

<http://www.youtube.com/watch?v=Bg0QminAPMM> (accessed on May, 2010)



“Plastic pollution” by The Plastic Pollution Coalition

<http://www.youtube.com/watch?v=LgP8Du7DZW8> (accessed on May, 2010)



Appendix 2: Attachments list

 ChemistryEverydayLife.pdf	Student's materials and Teacher's notes.
 ChemistryEverydayLife_sshow	
 ChemistryEverydayLife_ppt1.pdf	Mute slideshow referenced in sessions 1 and 12.
 ChemistryEverydayLife_ad	
 ChemistryEverydayLife_ad.jpg	Image file of the advertisement used in page 10.
 ChemistryEverydayLife_content	
 ChemistryEverydayLife_ppt2.pdf	A ppt referenced in sessions 3, 4 and 6.
 ChemistryEverydayLife_labels.pdf	A set of photos of products labels for session 6.
 ChemistryEverydayLife_wordle.png	Image file created with Wordle.
 ChemistryEverydayLife_wordskey.pdf	Key for the word search (page 12).
 ChemistryEverydayLife_oralp	
 ChemistryEverydayLife_ppt3.pdf	A ppt referenced in session 5.
 ChemistryEverydayLife_experts	
 ChemistryEverydayLife_ppt4.pdf	A ppt with the expert activity instructions.
 ChemistryEverydayLife_game	
 ChemistryEverydayLife_board.pdf	The board of the consolidation game.
 ChemistryEverydayLife_love	
 ChemistryEverydayLife_ppt5.pdf	A ppt referenced in the resource bank.



Appendix 2: Creative Commons license

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