

## PART TWO

“Taste of the Space”



# INTRODUCTION

The materials in this section are intended to give you a **“Taste of the Space”** through examples taken from the full range of exemplar materials available on the PACE website.

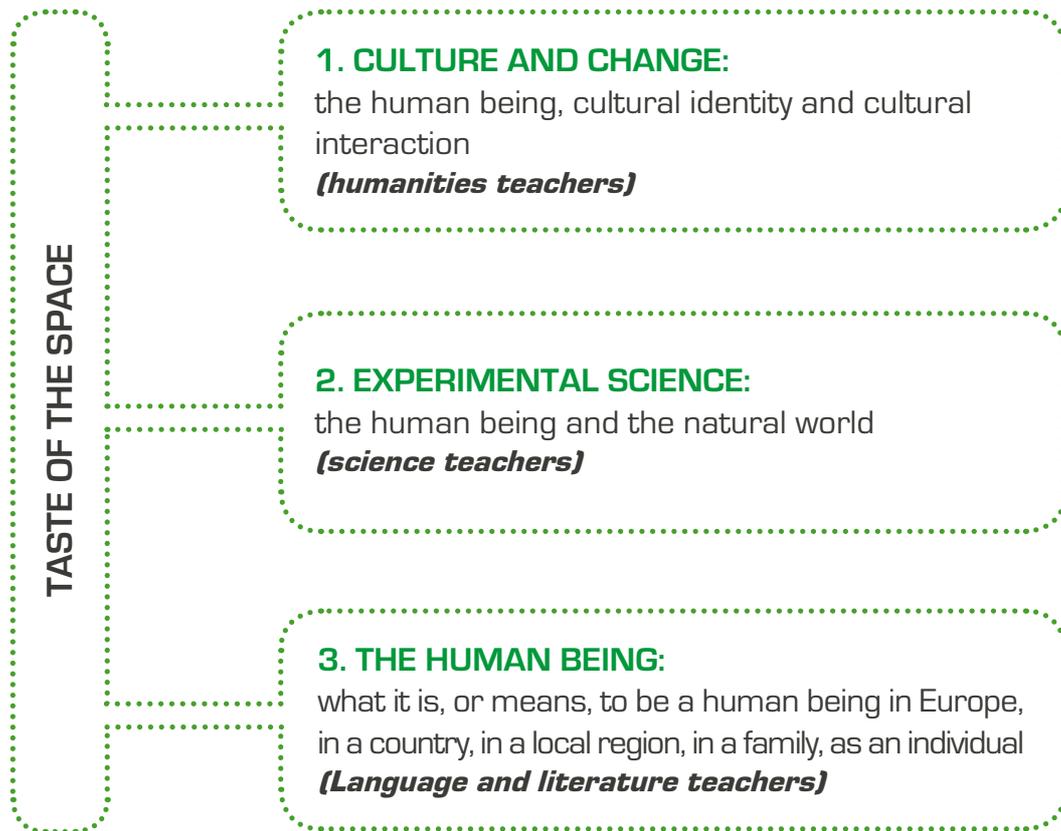
This paper publication provides a limited window on the “Space” itself, which offers not only complete schemes of lessons but also worksheets, reference materials, power point presentations by both teachers and students, videos, examples of students’ work and other evidence of the “lesson materials in action”.

In “Taste of the Space”, each PACE teacher’s work (which was piloted and subsequently revised) is represented in extracts from the Space.

These extracts take diverse forms including:

- **Examples of complete schemes of lesson plans**
- **Extracts of lesson plans**
- **Examples of assessment criteria**
- **Examples of students’ work**
- **Examples of reference materials used in lessons**
- **Examples of “Materials in Action”**

The examples are organized according to “Big Idea” (thematic) groups, as follows:



In the case of extracts, the “taste” is presented in relation to specific PACE teaching and learning strategies.

Complete schemes of lesson plans reveal the spectrum of teaching and learning strategies.

**Below is an example of how these strategies were used in the development of a specific scheme of lessons, in this case in a language module on “Duty” (Big Idea 3)**

**1. Students challenged to develop their own, well founded ideas and express them in their work:**

The whole module is incremental i.e. the module is designed to allow the students to ‘build’ their own idea of duty, moving from an individual perspective, via the views of the immediate community, to a more universal idea. Students begin by discussing a topic at the individual level because they are ‘experts’ about their own views. Proceeding to immediate community and then to a ‘universal’ perspective broadens the students’ own perspective.

**2. Opportunities for learning both inside and outside the classroom:**

The students will design questionnaires about ‘Duty’ and interview their peers, parents, grandparents, members of their community, teachers etc. This will broaden their conception of the topic whilst broadening their idea of where learning takes place and from whom they can learn.

**3. Subject material with “real life applications” and connections to the world outside the classroom:**

Students will examine the language of ‘Duty’ e.g. The language of religion, of familial duty, of the law or politics etc. They will consider how language and culture intersect and how ‘Duty’ is culturally determined.

**4. Collaborative work amongst students and between students and teacher:**

The students will work in groups to compare and discuss their ideas about ‘duty’, to design the questionnaires and to present the findings of the questionnaires.

**5. A participatory approach to class, with students taking responsibility for contributing:**

At several points during the module students will participate in group and whole class discussions to debate, for example, the negative and positive aspects of duty. The module is begun with a class ‘brainstorm’ of the ideas and words associated with ‘Duty’.

**6. Experiential learning:**

The practical, investigative and experiential aspect of the module is the interviews and the analysis of the results. The initial discussions and analysis of ‘the language of duty’ require students to examine their own ideas about duty, consider how they might be culturally specific and examine the opinions of other individuals and institutions on the topic. The final discussion and analysis of the findings of the questionnaire allow the students to reevaluate their original ideas about ‘Duty’.

Although these strategies underlie all the PACE lesson materials, priorities given to specific strategies vary according to the academic subject and “Big Idea”. The three charts below show the relative importance of the PACE teaching and learning strategies for each Big Idea group, with 1 being the most and 6 the least important within the range 1 - 6:

Culture & Change	
1	Collaborative work amongst students
2	Participatory approach Students develop their own ideas
3	Connection to the world outside the classroom Experiential learning
4	Learning outside the classroom
5	
6	

Experimental Sciences	
1	Experiential learning Students develop their own ideas
2	Collaborative work amongst students
3	Connection to the world outside the classroom Participatory approach
4	Learning outside the classroom
5	
6	

The Human Being	
1	Students develop their own ideas
2	Participatory approach Collaborative work amongst students
3	Connection to the world outside the classroom Experiential learning
4	Learning outside the classroom
5	
6	

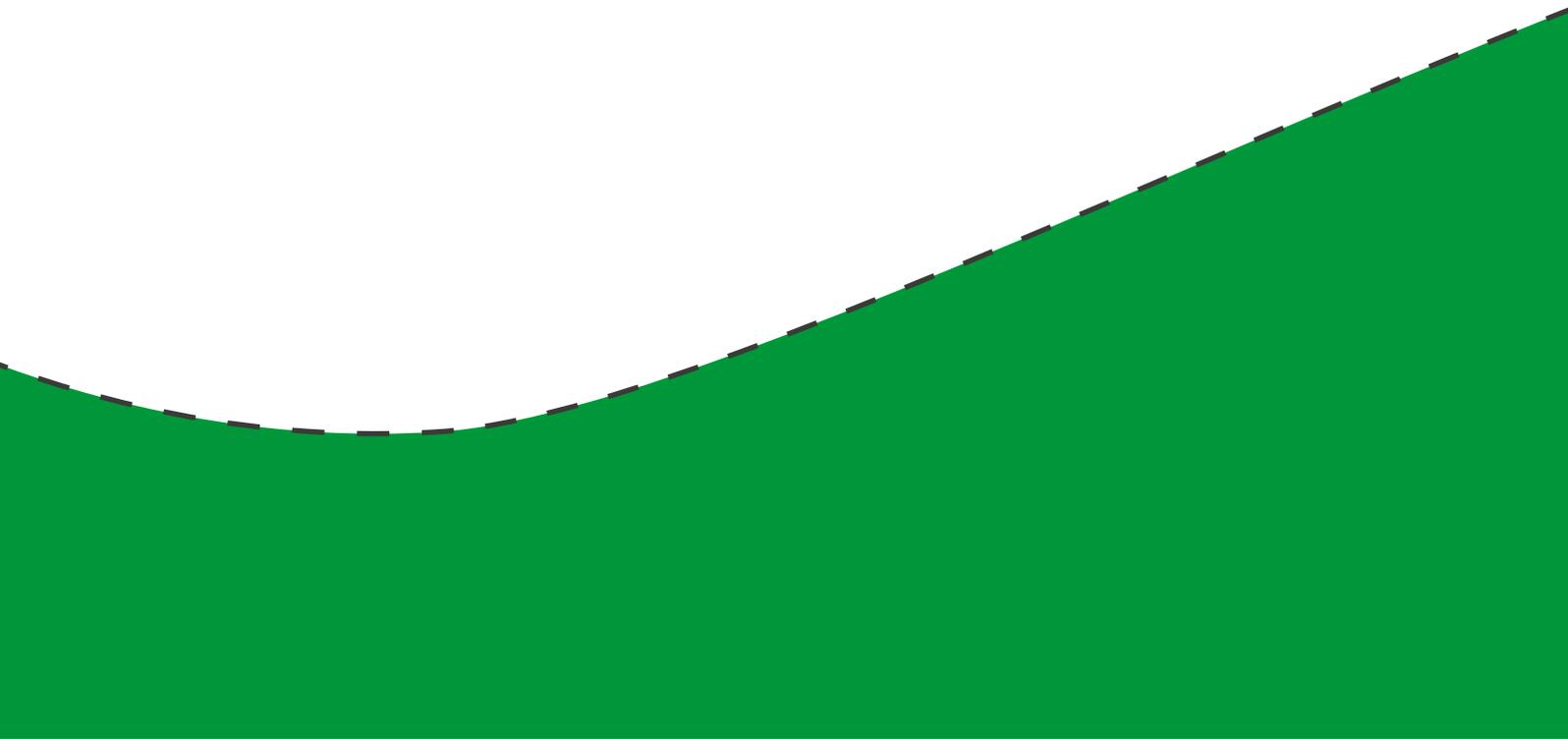
As explained in part 1 of this booklet, the schemes of lessons are not intended to be ready-made programmes, final products to be taken off the virtual shelf, dusted and used instantly. Rather, they are descriptions of what teachers invented for their own classes and what actually worked for them.

Writing in English, the PACE teachers, whose mother tongues may be Bosnian, Croatian, English, Italian or Serbian, are willing to share with you their ideas, their resources and their personal exploration of themes. They are also prepared to share examples of their “materials in action” - through examples of student work whether in the form of PowerPoint, posters, writing or painting.

These materials are offered as illustrations of what can be achieved in a wide variety of schools when teachers are interested in trying to do things differently.

It is not envisaged that these materials are in a “final” form, but rather that every user will create something new out of them, using PACE strategies with a view to fostering critical thinking skills, the ability to challenge received ideas and the capacity to understand different perspectives, in this way preparing students to face social and cultural change in the 21<sup>ST</sup> Century.

Please note that, in the main, the teachers’ materials have not been edited but have been presented in their original form.



# CULTURE AND CHANGE

## **THE HUMAN BEING:**

Cultural identity and  
cultural interaction  
*(humanities teachers)*

## **Henry Thomas**

---

**Exemplar Material Title:** Intercultural Perceptions: Benin and European Contacts,  
a case study

**Subject:** World Arts and Cultures

---

### **Introduction**

This unit introduces the methodology of the course and explores concepts of cultural identity and cultural interactions, focusing on the specific examples of the African kingdom of Benin and European contact between the XV Century and the XIX Century. The selection and presentation of the material is shaped by the PACE core beliefs and common strategies.

The World Arts and Cultures case study methodology involves a three stage process of investigation.

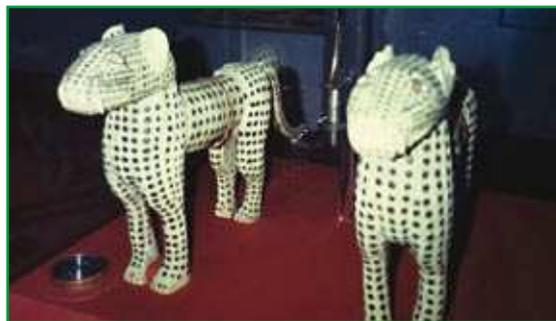
- **Look, think and ask questions**
- **Research, more thinking, more questions**
- **Discoveries about the nature of cultural identity  
(synthesis and evaluation)**

World Arts and Cultures is the study of art objects and other cultural phenomena (for example, advertising, carpets, ceramics, literature, folk music, cinema, pop videos, paintings, architecture, sculpture, clothing) as a means of exploring aspects of cultural identity. World Arts and Cultures uses a case study methodology, the subject of which is an art object or other cultural phenomenon.

## Steps of the Unit

### Step One

The class is presented with a series of slide images of Benin Royal art, both bronzes and ivories. Some examples from the British Museum collection:



### Step Two

While viewing the slides the class records speculative responses to the questions:

- What do you see?
- What do you think it is?
- Why do you think this?
- What material is it made of?
- When was it made?
- How was it made?
- Why was it made?

After a brief discussion the students quickly realize that in order to answer such questions they need information.

### Step Three

The class generates the categories of information required. Through discussion, the class (including the teacher) decide what it is they need to know in order to “understand” the cultural phenomena they have just viewed.

In short, information about the CULTURAL CONTEXT in which objects are created and used.

#### **Step Four**

The teacher presents the class with the earliest European account of Benin:

How does the author who has never been to Benin or Africa, “describe” it to it to a European audience?

How reliable is such reporting?

What can we learn from such a document?

(The text is available in the additional material on the “Space”)

#### **Step Five**

Students are divided into research groups, randomly choose a research category (from those generated in Step 3) and are directed to resources. A selective list of resources is available in the additional material. Each group researches and prepares a 15 minute presentation in which they use their research to “illuminate” the Benin art objects the class has viewed.

#### **Step Six**

After the research period, students present findings in 15 minute group presentations to the class. Each group member must actively participate. (Examples of student power point presentations may be seen on the “Space”)

#### **Step Seven**

The original Slide sequence is “re-viewed” in the same order. The class offers an informed “running commentary” on the images. The WORLD ARTS AND CULTURES methodology is established and understood.

#### **Assessment**

Group presentations assessed on an individual basis by the teacher using the IB subject descriptors.

## **Conclusions**

As stated in the introduction, World Arts and Cultures is in essence an approach to questions of cultural identity and cultural interaction which starts from the students' "encounter" with a cultural phenomenon, in this case study, the royal art of Benin. Each of the Steps in the lesson plan encourages the students to learn (about Benin), and think critically about the process of learning. Thinking about the process of learning in the classroom (in this case about the culture of Benin) should lead the students to think about how they/we "learn" about cultural identities in the "real world" - about their/our own cultural identities, about how they/we perceive "alien" cultures, about "otherness", about stereo - types and prejudices, and about what happens when different cultures come into contact. In practical terms, the Steps described above can be applied to any cultural phenomenon, and tailored to almost any time-tabling arrangement - each step does NOT equate to a lesson of fixed duration.

## ***Core Beliefs (underlying all strategies)***

- Knowledge should lead to understanding
- The personal development of the student is central
- Independent learning should be encouraged and supported
- Students should be given opportunities to think about why and how they learn, about how they know what they know
- Transparency: the goals of the programme should be clear; the modes of assessment and the assessment criteria should reflect the common strategies and be known to the student
- Student feedback and views are essential. Students are collaborators

## ***Common Strategies***

- Subject material with connections to the world outside the classroom
- Diversity of teaching methods, resources and aids
- A participatory approach to class, with students taking responsibility for contributing
- Students challenged to develop their own, well-founded ideas and express them in their work
- Collaborative work amongst students and between students and teacher

**Exemplar Material title:** The Mind and the Senses: Medit-Action on an Elephant  
**Subject:** Humanities (History and Literature)

---

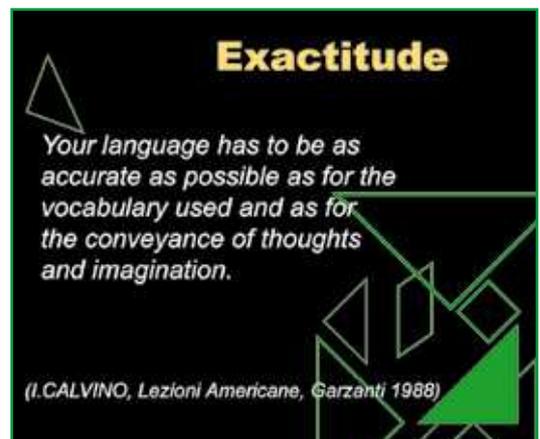
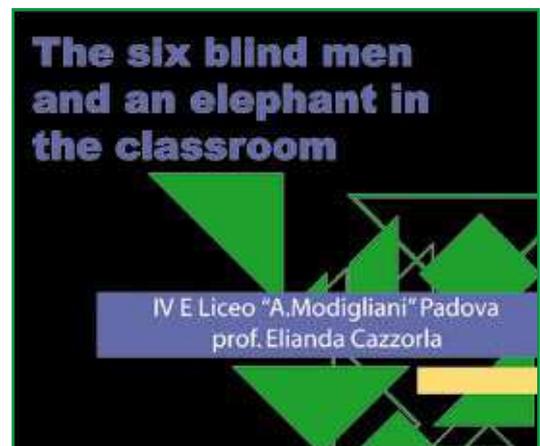
### Poems, Images, Words

The starting point of this module is a Sufi legend that shows us how it's unavoidable to have several points of view on the same issue and at the same time how it is crucial to bring together the separate pieces of the puzzle in one picture. Knowledge is linking up several points of view, through mind and senses, but it may not be enough, because reality is much more complex.

"Think through your senses and feel through your mind" is the Venice Biennale 2007 theme. Let's imagine reality like a stream overflowing: what rationality as the main stream cannot contain, flows into the smaller brooks of art. Images and words go back and forward across semiotic codes, lighting sparks of knowledge.

I used some exemplar materials, but it was also necessary to add new texts, from literature and current affairs, more specifically related to the Biennale work of art we chose, "Libertè" di Lars Ramberg. This work is an example of art which accuses society of neglecting human rights. The students also provided texts and music to analyse in order to understand the theme better.

The images in this section show some slides from the teacher's power point introduction to a unit within the overall scheme of lessons, leading to an example of work produced by a group of students.





**Exactitude**

The translation from textual language into an iconographic one or vice versa has been the thread which has guided us during our work. We can now state that a translation is never completely trustworthy: the outcome always lacks some information which can only be found in the original language.

*Starting from the concept of the semiotic intersection (a process of reading and critical compound of texts and images – see R. Jakobson), a group of students created a significant picture:*



### The Students' Commentary on their Work

*We thought about this story and realized that all the problems came from the lack of two senses: sight, first of all, and the sense of hearing, because the men didn't want to listen to each other.*

*So, in our work, we put a multitude of eyes as a landscape, children's eyes, old eyes, blue eyes and brown eyes, all of those with a feature: they are all watching us, as we would do considering our lives.*

*On the right we disposed an enormous ear, the one missed by all those men. Pieces of newspapers, within words and letters are flying around the ear, going beyond the bidimensionality. Words are the only code that everyone have to communicate with the world.*

*The big elephant in the centre of the picture is made with pieces of everyday life, without any sense with the story, because blind men told that they knew... Maybe someone else with other culture should say something different as regards the tail, or the tusk.*

*For example, we made the body with a credit card!!*

*What about the prince? Well, who better than a baby can explore news and things?! So, we chose a blue-eyed baby, pointing on us. At last, there are lots of hands coming out of the low part of the picture, because everyone have to taste, to touch, to know about that particular thing... .. Called elephant... Called life...*

Monica - Rosa - Camilla - Lisa

### STRATEGIES

Students are challenged to work on their own, to develop well founded ideas and to express them in their work

**Exemplar Material title:** Corruption, Globalization & the Prospects for International Trade

**Subject:** Economics

---

**UNIT 2 of the Lesson Plan: “Corruption”**

**TASK – Step 1**

- Divide class into small groups – ask them to define ‘corruption’ and to offer examples to support their definitions
- Provide ‘official’ definitions. Transparency International <http://www.transparency.org/>

**TASK – Step 2**

- Divide class into country groups based on Transparency International lists (4 groups of 3 countries each – each student assigned a country and a respondent country from another group)
- Each student carries out individual research on their countries
- Groups develop a list of key characteristics e.g. role of family, political system, gdp/capita, income distribution, nature of civil service, geographic location and present findings to the class
- Tentative answers to the question of why

**Outcomes**

- Recognize the challenge of defining the term
- Cultural bias of definitions – if it is ‘legal’ is it corrupt?
- Importance of corruption in limiting economic activity

**STRATEGIES**

Diversity of teaching methods, resources and aids

Collaborative work amongst students and between students and teacher

A participatory approach to class, with students taking responsibility for contributing

Subject material with ‘real life applications’ and connections to the world outside the classroom

Students are challenged to work on their own, to develop well-founded ideas and to express them in their work

**An assessment trial by Peter Howe:**

<b>ECONOMICS</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
<b>Note-taking / content knowledge</b>	Poor organization; entries are not dated; handouts are not logically integrated; insufficient detail and/or clarity in presentation of material	Fair organization; dating inconsistent; some handouts are logically integrated; generally clear presentation of material but important details are lacking	Good organization; most entries are dated; most handouts are logically integrated; clear presentation of material; relevant details in evidence	Excellent organization; all entries are dated; all handouts are logically integrated; clear presentation of material; entries are detailed, coherent, relevant
<b>Terminology</b>	Poor use of economic terminology; few, if any, terms requiring definitions are defined	Fair use of economic terminology; some terms requiring definitions are defined	Good use of economic terminology; most terms requiring definitions are defined	Excellent use of economic terminology; all terms requiring definitions are defined
<b>Use of Economic Theory / Models</b>	Little recognition of relevant economic theory; appropriate models not identified or identified but inappropriately applied	Some recognition of relevant economic theory; appropriate models identified but application is limited or incomplete	Relevant economic theory explained and developed; appropriate models identified and applied in an effective manner	Relevant economic theory clearly explained and developed; appropriate models identified and applied in a sophisticated manner
<b>Critical thinking</b>	Limited evidence of critical thinking; few, if any, questions and answers; limited awareness of the cultural context	Some evidence of critical thinking; some ability to synthesize and evaluate information and ideas; evidence of questions and answers; some awareness of the cultural context	Good evidence of critical thinking; strong ability to synthesize and evaluate information and ideas; good questions and answers; knowledge and awareness of the cultural context	Excellent evidence of critical thinking and personal reflection; strong ability to synthesize and evaluate information and ideas; engaging questions and answers; excellent awareness of the cultural context

THE DESCRIPTORS FOR CRITICAL THINKING WERE ADOPTED BY ALL PACE TEACHERS IRRESPECTIVE OF SUBJECT

## **Annemarie Oomes**

---

**Exemplar Material title:** Corruption, Globalization & the Prospects for International Trade

**Subject:** Economics

---

### **Case Study: The International Trade Game**

#### **UNIT 3 of the lesson Plan:**

##### **Traditional Trade Theory**

#### **TASK:**

- Teacher presentation of traditional trade theory – opportunity cost, comparative advantage, absolute advantage, David Ricardo
- Assumptions of the model, terms of trade, etc.
- Gains from trade based on comparative advantage

#### **Outcomes:**

- Student understanding of the ‘abstract’ nature of traditional trade theory, its usefulness and its limitations

#### **TASK: The International Trade Game** (For full details see the “Space”)

This game is a version of the World Trade Game developed by the Third World development charity Action Aid, amended to be suitable for students beginning a course in economics, economic development or international trade.

(Many versions of this game are available. Oxfam ([www.oxfam.org](http://www.oxfam.org)) provides very useful material.)

The following text is composed of details and excerpts from the text of John Sloman (University of the West of England, [john.sloman@uwe.ac.uk](mailto:john.sloman@uwe.ac.uk), published September 2002).

**To play the game you need:**

- At least 10 students
- very basic equipment, such as scissors, pencils, rulers and paper
- A game leader (the teacher), a “commodity trader” (a student), an observer (a student)

Students are divided into teams, each of which acts as a separate ‘country’. Five or six countries compete against each other in manufacturing and selling goods to a international commodity trader at posted prices which vary with supply and demand. The game takes between 45 and 90 minutes. After the game, results are collated and students are debriefed.

**Debriefing is in three stages:**

1. Draw students’ attention to similarities and differences between the results from different groups. Did the groups that started with the same resources perform in a similar way? How much of the difference between the groups was due to strategies pursued and how much to the initial endowment? It is also appropriate at this stage to pose questions that prompt students to describe how they felt about the game as it developed.
2. The second stage consists of asking the students to indicate ways in which they believe the game simulates the real world and ways in which they believe it is unrealistic. One of the strengths of this game is that the inherent inequality in resource endowment that gives the game its distinctive character is hard to contest as a reflection of the real world economy. Students are more likely to question the way in which the game simulates the opportunities that these endowments create for different countries and how those opportunities are exploited.
3. In the third stage of the debriefing, the tutor aims to help students to compare the way they have analysed their experience in the game with the insights derived from economic ideas and the evidence that economists have assembled.

**Learning outcomes**

The International Trade Game has a wide range of potential learning outcomes, and with suitable focus, especially during the process of debriefing, a number of economic topics might be identified and developed more fully. These topics range from elementary trade theory to issues of imperfect information and even debates surrounding international inequality and first and third world relations. As well as subject-related learning outcomes, the International Trade Game helps develop a number of key skills. Group working and interacting with others are among the most significant. The process of negotiating is also a very strong element within this game.

## STRATEGIES

Diversity of teaching methods, resources and aids

Collaborative work amongst students and between students and teacher

A participatory approach to class, with students taking responsibility for contributing

Subject material with 'real life applications' and connections to the world outside the classroom

Experiential learning: practical work in tandem with theory



**Exemplar Material title:** THE MIND AND THE SENSES - painting, music, poetry, novel  
**Subject:** Humanities

---

### From Boccaccio to...Simone:

**Ash and blood: a novel inspired by the Boccaccio story "*Nastagio degli Onesti*" and by Sandro Botticelli's workshop in Florence.**

### An Example of A Student's Work

Il fuoco ardeva impetuoso e violento, divorando i nodi sonori del legno. Le fiamme esplodevano a tratti, tracciando sulla pietra annerita petali crepitanti di scintille che spezzavano il silenzio. Guido si inginocchiò. Rosse lame danzanti penetravano nel fragile ordito della corteccia, schiantando la trama delle docili fibre, succhiando gemiti e lamenti che rimbombavano come pianto da un capo all'altro del salone. Le ombre della notte annegavano nel loro abbraccio la luce esitante di una candela. Guido respirò a fondo, strappando l'aria con la bocca digrignata, gli occhi opachi catturati dalla punta vivida e brillante della fiammella. Perle roventi di cera colavano lente sulla pietra gelida, colmando le fessure. Lacrime a stento trattenute artigliavano la pelle ruvida, tracciando sentieri senza meta. Nell'oscurità, una lama.

Guido si chinò tremante, lo sguardo cieco, il volto deformato dalla follia. Il ferro penetrò nella carne senza resistenza, freddo e affilato. Il cuore straziato batteva senza sosta, colpo dopo colpo, come una preda al laccio. Ogni goccia di sangue scorreva fremendo nelle vene, impazzita. Il giovane si accasciò con un rantolo, il respiro sfregiato dal dolore. Nei suoi occhi lucidi di lacrime un volto dolce, bellissimo, fatale. Nella mente trafitta una voce melodiosa e sprezzante. Nelle mani imbrattate di sangue, ardenti briciole di desiderio. Nella bocca esangue parole d'amore, amare come veleno.

Nastagio arretra terrorizzato. Gli aghi dei pini fremono impazziti, baciati dal vento freddo della sera. Urla disperate, guaiti disumani, grida stridenti come catene nel silenzio fremente della foresta. Un cavaliere spettrale, il volto devastato dalla morte e dalla sofferenza, le mani aggrappate convulsamente alla spada, gli occhi ebbri di follia divorati da un dolore insaziabile. Sulla terra intrisa di sangue nero il cadavere mutilato di una donna, i capelli avvolti come un cappio intorno al collo sottile, la bocca arsa dal terrore. Nella mano contratta e scheletrica di Guido, un cuore duro e gelido come pietra, colpito dai raggi del sole morente. Non batte. Le dita del giovane affondano nella carne fredda, gocce di sangue rubino colano sulla pelle avvizzita dello spettro. L'iride spenta invasa dalla nebbia si spezza,

riflette la pupilla infuocata del tramonto. Le mani bianche della donna graffiano il suolo odoroso, la pelle d'avorio si rimargina, le labbra riprendono colore. Guido ammira i suoi occhi, la gola soffocata dal pianto. Il cavallo nero scalpita impaziente, le mani ossute afferrano le redini, la spada vibra nel fodero, bramosa di sangue. Guido ha affondato quella stessa lama nel suo cuore straziato, bramoso di morte e di oblio. Un cuore calpestato, disprezzato, deluso, deriso da quel corpo inerme, quelle labbra orgogliose, quella voce tagliente, quel cuore freddo come un sepolcro. La donna fugge, dileguandosi nel fitto della pineta. Il destriero si alza sulle zampe posteriori, emette un nitrito potente e prolungato, gli zoccoli risuonano come tuoni sulle pietre del sottobosco.

Gli occhi di Nastagio, velati di malinconia, incrociano lo sguardo furente e dilaniato del cavaliere: "L'amavi a tal punto, Guido degli Anastagi, da non poter vivere senza il suo amore. Una vita senza di lei non era, per te, degna di essere vissuta. Il cielo vi ha condannato entrambi...e colei che hai amato più della tua stessa vita è ora la tua mortale nemica".

Lucrezia applaude entusiasta, dondolandosi vezzosamente nella calda e morbida pelliccia dello scialle. Giannozzo le afferrò con le dita lisce e sudate la manina arrossata e la portò goffamente alla bocca. Si leccò le labbra screpolate e le sussurrò all'orecchio una frase incomprensibile, strabuzzando i suoi occhietti scuri e annacquati. Lucrezia sospirò e sorrise in direzione del Magnifico, i suoi occhi brillanti e sottili immersi dolcemente nello sguardo saldo, autoritario, arguto del "princeps". Sandro Botticelli si inchinò borbottando un augurio e scomparve al seguito di Lorenzo. Giannozzo, disfattosi del mantello, si sfregava le mani davanti al focolare, il volto grassoccio tagliato da un sorriso largo ed ingenuo. "Siamo marito e moglie, mia adorata Lucrezia" bofonchiò, dandole prepotentemente le spalle. La fanciulla, assorta e compunta, si sciolse le trecce con gesti lenti e studiati, il corpo magro avvolto in una vestaglia leggera...

Giannozzo russava, la fronte aggrottata imperlata di sudore. Il fiato puzzava di vino e di selvaggina, la bocca socchiusa raddolcita da grumi aciduli d'infantile piacere. Lucrezia si liberò agevolmente dalla sua stretta e scivolò lenta sul pavimento di marmo freddo.

Le braci palpitanti del camino strangolate dal buio della camera da letto, il battito del cuore soffocato da un'amara malinconia. Schegge di luce accarezzavano le sapienti pennellate del maestro, rivelando volti sfigurati e cieche grida. Lucrezia sfiorò lentamente con le dita la sagoma tremante della donna in fuga e il suo sguardo cadde sugli stemmi uniti, nell'ombra. Sentì le lacrime invadere impietose gli



angoli degli occhi e raschiare la pelle bianca del viso. Giannozzo si girò grugnando nel sonno.

“Anch’io sono caduta. Anch’io sono stata raggiunta e trafitta. E il mio cuore...vivo, ardente...è tra le mani di un uomo che non amo.”

Occhi dipinti dalle setole di un pennello. Occhi vividi saccheggianti da un dolore senza nome.

Entrambe donne...entrambe prede.

***Simone***

## STRATEGIES

Students challenged to develop their own, well-founded ideas and express them in their work

**Exemplar Material title:** World War I (1914 - 1918) and the Interaction of Cultures  
**Subject:** History

---

**Discussion about the Usefulness and Validity of Original Source material**

(in this case, on the Suffering of Bosnian Serbs during World War I)

**Read the extract and answer the following questions:**

1. What is the sentiment of the text?
2. What useful information about the situation in Bosnia and Herzegovina during WWI can you find in this text?
3. What is the value of this source?
4. What do you think is its purpose?
5. What sort of source limitations do you find?

**The Extract**

Investigations and raids in organizations and societies of Dalmatia and Bosnia began on July 22, the same day Austro-Hungarian ultimatum was given to Serbia. On the day of ultimatum many of organizations officials as well as journalist were imprisoned...

At the time army mobilization was proclaimed all Serbian societies in Bosnia and Herzegovina were shut, or in some cases their activities were cancelled...

On July 10. Bosnian council was cancelled, all oppositionist no matter which political parties they belonged to were taken as hostages. The same thing happened to Serb members of Croatian, Hungarian and Austrian assemblies (Bogdan Medaković, president of the Croatian assembly, was tied and brought from Opatija to Zagreb), together with many Croats that had problems with the regime because of their „unity of nations“ ideas...

Particular energy was used in extinguishing all the characteristic features of Serbian culture and Serbian nationalism. All the Serbian schools in Bosnia and Herzegovina, Croatia and Slavonia were shut, Serb teachers were dumped to the street. School buildings were partly destroyed, some were taken over by the army, other transformed into public schools. Earlier that time Serbian flag was forbidden. By the official order of July 26. all the local religious family celebrations were prohibited. Even wearing of „Serbian“ traditional šubarica-hat was forbidden, because it has „without any doubt political background“.

On 3rd October 1914. Croatian government banned Cyrillic script in primary schools. The same happened in Bosnia and Herzegovina on November 11. 1915. By the order of Croatian government on 5th November, 1914. official name of native language was changed from „Croatian or Serbian“ to „Croatian“...

In Bosnia and Herzegovina government even started closing public schools, which were „inefficient“ because of the student spirit in them. By the decision of the Common ministry of finances (3. September 1914.) gymnasiums in Tuzla and Mostar were closed for one year because of the “constant student rioting, sometimes even sad appearances of anti-dynastic and anti-monarchic behaviour”. „Every true friend of his people and his country would approve these actions, as it is much better not to have high schools at all than to produce worthless people, enemies of public peace and law, evil and tragedy for their parents and their country“...

All the major Serb organizations were politically and legally persecuted. By all means, plan was to find a proof that Serbian nationalism in Austria-Hungary was imported from Serbia, and created by the intentional agitation...

*[About accusation of Union of Serb Agricultural Communities and its magazine “Privrednik”(Economist) for propaganda activities]*

*“From the writing of “Privrednik” it is perfectly clear that Union of Serb Agricultural Communities from the beginning develops its agitational activity in service of Greater Serbia propaganda among Community's members. It spreads its ideology among Orthodox people of Croatia and Slavonia through different folk songs, brought from Serbia, through articles about Serbian history, describing Great migration of Serbs, former Serbian empire, emperor Dušan, emperor Lazar, Nine Jugović brothers, Battle of Kosovo and generally about heroes that were important for ideas of Greater Serbia. They encourage them to follow these heroes, famous Serbs, as their national ideals and fight for the resurrection of Dušan's Empire, the Greater Serbia...”*

*Vladimir Ćorović:*

*“Black Book – suffering of Bosnian Serbs during the world war 1914 - 1918”  
Belgrade 1920. (extracts translated by Dženan Hakalov)*

## STRATEGIES

Collaborative work amongst students and between students and teacher

Subject material with “real life applications” and connections to the world outside the classroom

Diversity of teaching methods, resources and aids

A participatory approach to class, with students taking responsibility for contributing

Students challenged to develop their own, well-founded ideas and express them in their work

**Exemplar Material title:** Who's Who in Ancient Philosophy

**Subject:** Philosophy

---

### Are you Thinking?

#### Fifth Phase of the Lesson Scheme

Two hours to discuss the common use of the word “thinking”, to distinguish between different uses and to try to identify philosophical use of the word. The students are required to provide pictures or movies as an example of a particular use of the word.

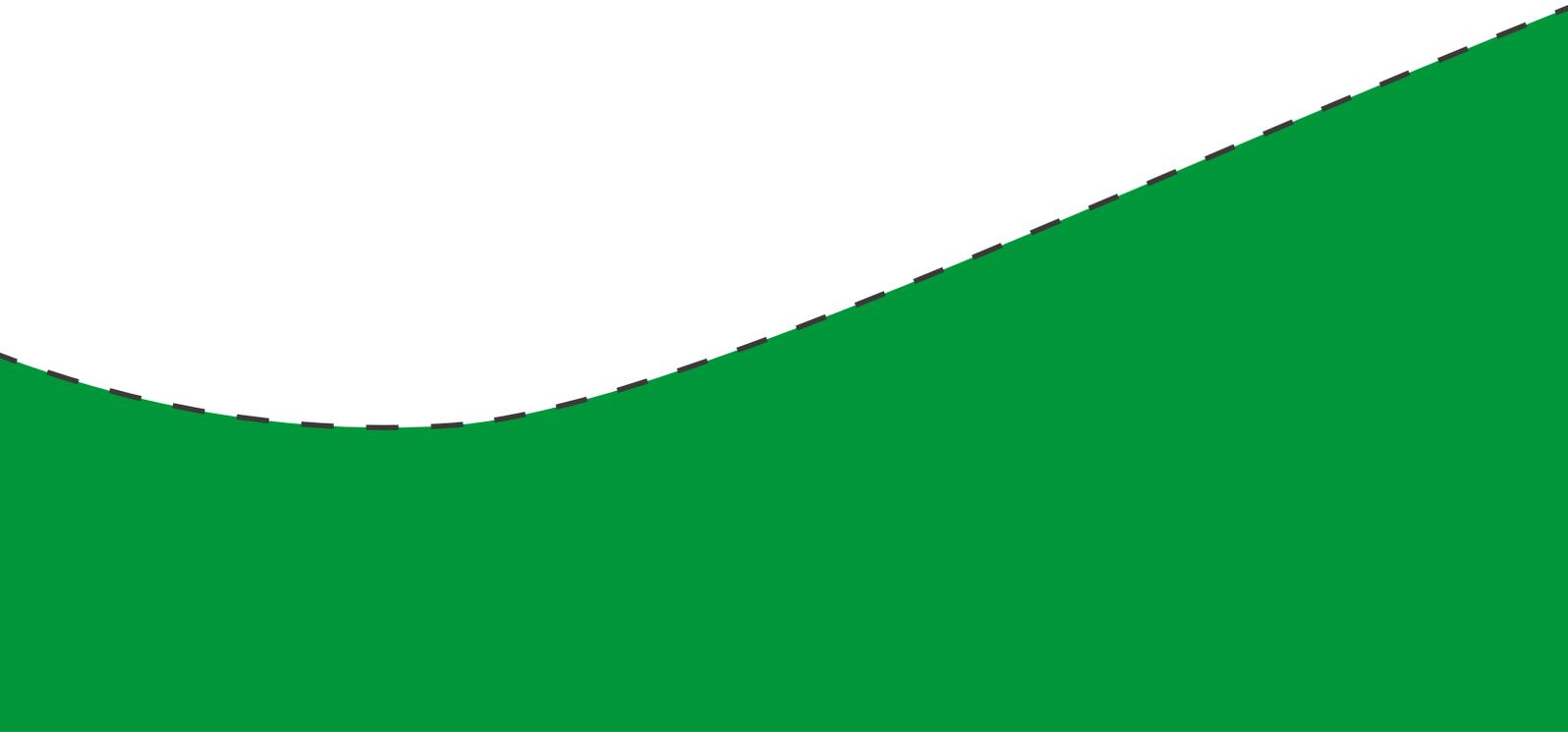
Some examples of students' pictures.....



#### STRATEGIES

Subject material with “real life applications” and connections to the world outside the classroom

A participatory approach to class, with students taking responsibility for contributing



# EXPERIMENTAL SCIENCES

The human being and  
the natural world  
*(science teachers)*

**Valentina Mindoljević & Vedrana Vejnović (in collaboration)** \_\_\_\_\_

**Exemplar Material title:** 2<sup>nd</sup> Law of Thermodynamics

**Subject:** Physics

---

## **A Complete Scheme of Lesson Plans for: THE SECOND LAW OF THERMODYNAMICS**

(For power points, additions and “materials in action”, see the “Space”)

### **LESSON 1:**

#### **Introduction – Second law of thermodynamics in terms of energy transfer**

**OBJECTIVES:** to conclude out of already learned concepts the statements of the second law of thermodynamics

**STRATEGIES/BELIEFS USED:** subject material with real life application, a participatory approach to class, collaborative work amongst students

**MATERIALS:** working sheets, blackboard

#### **PLAN**

##### **Introduction**

State the first law of thermodynamics.

##### **Questions:**

1. What is a thermodynamic system?
2. Define: heat, internal energy and work done in a thermodynamic system?
3. Explain the first law in terms of conservation of energy.

### **Students' group work**

Students separate into groups with 2-5 members each and are given working sheets (addition 1) and assignments:

- Heat engine (car engine)
- Heat pump (air conditioning/refrigerator)
- Human being as a thermodynamic system
- A rock falling on the ground

### **Students' presentations**

Blackboard can be separated into 6 parts where short theses given by students' presentations should be written down, and the 6th part can be used for conclusions.

### **Conclusions**

Out of written theses we can conclude the statements of the second law of thermodynamics:

- Heat can flow spontaneously from a hot object to a cold object; heat will not flow spontaneously from a cold object to a hot object.
- No device is possible whose sole effect is to transfer heat from one system at lower temperature to a second system of higher temperature.
- There cannot be a 100% efficient heat engine – that is, one that can change a given amount of heat completely into work.
- In any natural process some energy becomes unavailable to do useful work.
- Most natural processes are irreversible.

### **Homework:**

Find an example in the house (and around it) that proves these conclusions.

Give to a group of volunteers lyrics of Entropy song to prepare for the next lesson. (addition 8)

## LESSON 2: Irreversibility of natural processes and entropy

**OBJECTIVES:** Learn concepts of entropy as general law

**STRATEGIES/BELIEFS USED:** individual work of students, developing their own ideas, diversity of teaching methods

**MATERIALS:** Laptop and projector, copies of printed exercises

### PLAN

#### Introduction

One student is chosen to present his homework (select a student with irreversible process example). Other students should think of more natural irreversible processes and state them. Students rap “Entropy” as introduction to topic.

#### PowerPoint presentation (addition 2)

Defining entropy.

Solving examples (addition 3<sup>1</sup>) to show that entropy increases in isolated system.

Students performing solution individually with the teacher supervision around class, and then on the blackboard.

(examples can be printed out and delivered to students)

#### Homework:

Tell students to bring 5 identical coins each on the next class.

Problems to solve (addition 4<sup>1</sup>).

---

<sup>1</sup> Douglas C. Giancoli, Physics, 5th edition, Upper Saddle River, N.J. : Prentice Hall, ©2002.

### LESSON 3: Statistical interpretation of entropy

**OBJECTIVES:** Understand concept of equilibrium and probability in interpretation of entropy

**STRATEGIES/BELIEFS USED:** Experiential learning, collaborative work, diversity of teaching methods, participatory approach

**MATERIALS:** 10 coins per two students, millimeter paper, laptop and projector with graphing software or graphoscope

#### PLAN

##### Experiment

Each pair of students should use 10 identical coins. Students will be given 10min to derive experiments. After every toss they should count number of heads and tails and put data in a table. Students should make record of results after 10 tosses and then continue and make record after 50 tosses.

Head / tail	(mark if given result)	total
0/10		
1/9		
2/8		
...		
10/0		

Students should plot derived data for both 10 and 50 tosses (**total vs. head/tail** graph) to get distributions.

Two results can be picked up and plotted by graphing software/show to the whole class distributions obtained. [alternative: prepared transparent sheet for graphoscope with axes and then plotting done on the class].

The most ordered state is all tails or all heads – obtain from the graph and data how many times such a case occurred for 10 and for 50 tosses

The least ordered state is half tails and half heads – obtain from the graph and data how many times such a case occurred for 10 and for 50 tosses.

##### Conclusions from the experiments

Students should conclude answers to these questions:

- Which state is occurring most of the times?
- How is the probability for the most ordered state changing with the number of tosses?

Discussion on experiment.

### Applications to natural processes

Explanation of microstates and macrostates of the system.

Most probable state of gas: molecules take up the whole space and move about randomly.

The least probable state: all molecules of the gas are located in the corner of the room.

In terms of probability, the second law of thermodynamics – which tells us that entropy increases in any process – reduces to the statement that those processes occur which are most probable.

### Homework

Research world wide web and find information on how the concept of entropy can be applied in many other sciences rather than Physics.

<http://www.math.uni-hamburg.de/home/gunesch/entropy.html>

---

## LESSON 4:

### Entropy and other sciences, time's arrow and unavailability of energy (heat death of Universe)

**OBJECTIVES:** Students should get a greater insight into the concept of entropy and analogy that can be used in many other sciences; philosophical interference with science

**STRATEGIES/BELIEFS USED:** Learning outside classroom, individual work, real life applications and connections with the world outside the classroom, participatory approach

**MATERIALS:** Laptop and projector

### Introduction

Discussions on homework.

Finding out how entropy concepts can be applied to other sciences like:

- information and coding theory
- dynamical systems
- logic and the theory of algorithms
- statistical inference and prediction
- the physical sciences
- economics

- biology
- the humanities and social sciences
- evolution

Another aspect of the second law of thermodynamics is that it tells us in which direction processes go. If you were to see a film being run backwards, you would undoubtedly be able to tell that it was run backward. Why? (discussion)

Hence entropy has been called time's arrow, for it can tell us in which direction time is going.

### Connection with philosophy

**Q:** Law of conservation of energy tells us that the energy in the whole Universe is conserved. Is it always useful? What happens to the energy after the system is moved to a level of greater disorder?

- In any natural processes , some energy becomes unavailable to do useful work
- Energy is less useful – it is degraded – it goes from more orderly forms to the least orderly form (internal or thermal energy)
- Heat death of Universe

Resource: [http://en.wikipedia.org/wiki/Heat\\_death\\_picture/graph\\_addition5](http://en.wikipedia.org/wiki/Heat_death_picture/graph_addition5)

### Homework:

A big discussion is raised about evolution vs. second law of thermodynamics among scientists and philosophers. The human being is a highly ordered organism. The theory of evolution describes the process from the early macromolecules and simple forms of life to Homo Sapiens, which is a process of increasing order. So, too, the development of an individual from a single cell to a grown person is process of increasing order. Do these processes violate the second law of thermodynamics?

Try to use previous knowledge and write down arguments for yes or no.

## LESSON 5:

### Thermal pollution and global warming

**OBJECTIVES:** To raise awareness about the human impact on nature and climate changes, learn about greenhouse effect and its causes and consequences

**STRATEGIES/BELIEFS USED:** Diversity of teaching methods, participatory approach, individual work, real life applications

**MATERIALS:** Laptop and projector, speakers

#### Introduction

Discussion on homework.

#### Thermal and air pollution (addition 6)

(PowerPoint presentation showing different examples of thermal and air pollution.)

Global warming

- Video: <http://www.youtube.com/watch?v=ov6GPTB4Tio&mode=related&search=>
- Explanation

The climate system varies through natural, internal processes and in response to variations in external forcing factors including solar activity, volcanic emissions, variations in the earth's orbit (orbital forces) and greenhouse gasses. The detailed causes of the recent warming remain an active field of research, but the scientific consensus identifies increased levels of greenhouse gases due to human activity as the main influence. This attribution is clearest for the most recent 50 years, for which the most detailed data are available.

Contrasting with the scientific consensus, other hypotheses have been proposed to explain most of the observed increase in global temperatures. One such hypothesis is that the warming is caused by natural fluctuations in the climate or that warming is mainly a result of variations in solar radiation. None of the effects of forcing are instantaneous.

Due to the thermal inertia of the Earth's oceans and slow responses of other indirect effects, the Earth's current climate is not in equilibrium with the forcing imposed. Climate commitment study indicate that even if greenhouse gases were stabilized at present day levels, a further warming of about 0.5 °C (0.9 °F) would still occur.

Resource: [http://en.wikipedia.org/wiki/Greenhouse\\_effect](http://en.wikipedia.org/wiki/Greenhouse_effect)

Simulation:

<http://green.nationalgeographic.com/environment/global-warming/gw-overview-interactive.html>

#### Homework:

Experiment – determining the solar constant (addition 7)

Find out how many sunny days on average there are in your place.

## LESSON6: Energy resources

**OBJECTIVES:** Learn about energy resources, raise awareness about preserving the environment and the future of energy resources as well as of the planet

**STRATEGIES/BELIEFS USED:** learning both inside and outside of classroom, real life applications, participatory approach, diversity of resources

### Discussion on topic: what we can do to slow down greenhouse effect

1. Energy resources we use for producing electricity. Use the table and discuss each source. (addition 9<sup>2</sup>)
2. Make a special discussion for solar energy, use and include experiment results to calculate following problem:  
Solar cell can produce about 40W of electricity per square meter of surface area if directly facing the Sun. How much energy can be produced in one day if we use 20 square meters of cell panels? How much per year? (Assume the Sun shines about 9h/day)
3. Introduce additional activities

### ADDITIONAL ACTIVITES:

- Organize energy saving action/recycling materials collecting action
- Visit power plant if possible (or some other energy producing site if possible)/Technical museum

**Exemplar Material title:** 2<sup>nd</sup> Law of Thermodynamics

**Subject:** Physics

---

### Introduction

In planning and doing the lessons.....there was the opportunity for an interdisciplinary viewpoint for physical concepts characterizing unit, such micro/macro vision of reality and order/disorder and degradation in systems. In particular, I focused on artistic representations of such physical aspects.

## LESSON 13: Entropy and other social sciences and expressions A Multidisciplinary approach to entropy

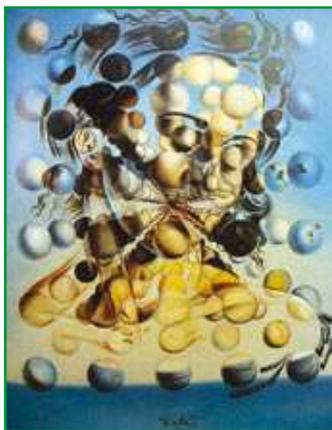
### TASK 1

Find how physical concepts of micro/macro and order/disorder are expressed by artists  
(see: Power Point presentation available on the "Space")

### TASK 2

Research web sites and find information about how the concept of entropy can be applied in many other sciences.

eg.: [www.fisicamente.net](http://www.fisicamente.net), [www.undo.net](http://www.undo.net), [www.unime.it/weblab/ita](http://www.unime.it/weblab/ita), [www.math.uni-hambrg.de](http://www.math.uni-hambrg.de).



S.Dalì, "Galatea of spheres", 1952

### Micro/macro

***"One microstate corresponds to only one macrostate whose properties are defined by the average or total values of variables characterising microstate"***

***"One macrostate corresponds to more than one microstate"***

***"We measure disorder of a macrostate with the number of microstates with which it could be realized"***



"The Ramesseum at Thebes, Sunset", 1840  
by W.J. Muller (Bristol Museum and Art Gallery)

Entropy of the universe:  
degradation and irreversibility

***Nothing beside remains. Round the decay  
Of that colossal Wreck, boundless and bare  
The lone and level sands stretch far away.***

By "Ozymandias" - Shelley (1792-1822)

## Conclusions

Other links will emerge during this academic year involving other colleagues. In particular philosophical subjects will be linked. For micro/macro concepts the students could explore the ideas of Aristotle and Spinoza. With regard to order and disorder, Aristotle's view of disorder, the Stoic one and Bergson's lecture on the concept could be considered. Another opportunity will be a sociological analysis in terms of micro/macro behaviour and responsibility.

## STRATEGIES

Connections to the world outside the classroom

**Exemplar Material title:** Energy - Climate Change

**Subject:** Environmental Systems

---

## **SIMULATION OF THE GREENHOUSE EFFECT: a practical investigation**

### **SECTION 1**

#### **Introduction to Climate Change**

- **Students discuss their present understanding of climate change, global warming greenhouse gases.**
- **What are the main greenhouse gases?**
- **Describe the role of greenhouse gases in maintaining mean global temperature – the ‘greenhouse effect’**

The “greenhouse effect” is the warming that happens when certain gases in Earth’s atmosphere trap heat. These gases let in light but keep heat from escaping, like the glass walls of a greenhouse.

First, sunlight shines onto the Earth’s surface, where it is absorbed and then radiates back into the atmosphere as heat. In the atmosphere, “greenhouse” gases trap some of this heat, and the rest escapes into space. The more greenhouse gases are in the atmosphere, the more heat gets trapped.

Scientists have known about the greenhouse effect since 1824, when Joseph Fourier calculated that the Earth would be much colder if it had no atmosphere. This greenhouse effect is what keeps the Earth’s climate liveable. Without it, the Earth’s surface would be an average of about 60 degrees Fahrenheit cooler.

- **‘Greenhouse Effect’ simulation**

Within this simulated region of land, the daytime’s rising temperature and the falling temperature at night can be measured, along with heat flow in and out of the system. The amount of greenhouse gases present in the atmosphere can be adjusted over time, and the long-term effects can be investigated.

<http://www.explorelearning.com>

## SECTION 2

### The 'Greenhouse Effect' – practical investigation(s)

What happens to a car that has been sitting in the sun on a hot day with all its windows rolled up?

Why does the car get so hot?

What happens to the sunlight that passes through the windows into the car?

What is keeping the heat inside of the car?

- **Simulation of the Greenhouse Effect – teacher demonstration** (refer to practical handout on page 42 \*\*, **Simulation of the Greenhouse Effect.doc**)

Experiment can allow use of data logging equipment if available. Throughout course of lesson the data gained can be projected onto a screen in the classroom so that students can follow the course of the experiment.

- **'Enhanced Greenhouse Effect' – laboratory practical**

Many scientists believe that we are experiencing an enhanced greenhouse effect. Unfortunately, accurate recordings of the earth's temperature go back only 100 years. This is not a long enough period to be sure of what is happening. However, we can simulate the greenhouse effect with a box and panes of glass. Keep in mind that the mechanism is not the same: heat is trapped in a car or a real greenhouse by the glass interfering with natural convection. In the atmosphere, the heat is not literally trapped; rather, enhanced global warming stems from the increased ability of the atmosphere to absorb heat due to greenhouse gases.

#### Lab Extension: ideas for further experimental design (own design labs IB)

Students could examine:

- Relationship between increase in temperature and an increase in the number of panes of glass
- Effect of clouds/water vapour (simulation using water vapour or gauze)
- Write up – formal assessment opportunity

## \*\* Practical Handout, Simulation of the Greenhouse Effect document

[available on the "Space" in Additional Materials]

Adapted from:

<http://www.reachoutmichigan.org/funexperiments/agesubject/lessons/greenhouse.html>

### Apparatus and Materials

Cardboard box  
Black paper  
2 thermometers or data logging equipment  
1 glass pane for each box – cut to fit  
Glue  
Scotch tape  
Electrical tape  
Data logging apparatus if available

### Safety Precautions

**Caution!** Danger of broken glass! Handle glass with care. Cover edges of each pane with electrical tape to prevent injury from cut edges.

### METHOD

#### Construction

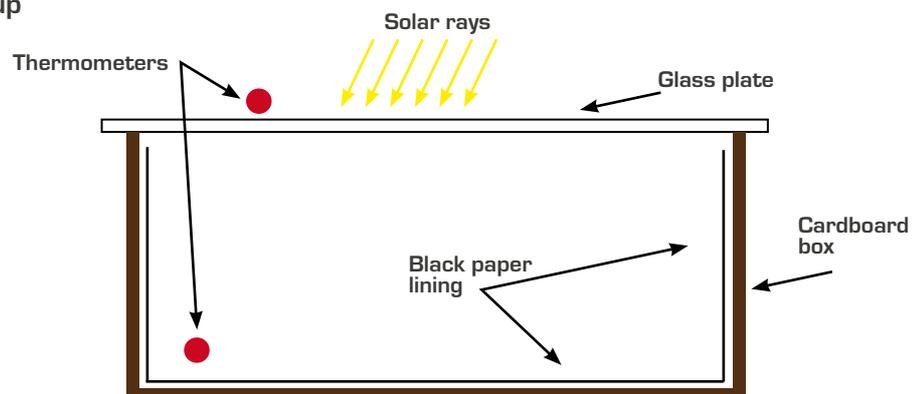
Using glue, completely line the inside of a cardboard box with black paper.

Tape down one thermometer towards the left side of the box, at the bottom. Be sure the thermometer can still be read.

Carefully place one pane of glass on the box.

Position a second thermometer on top of the glass pane as shown in Fig 1 (below).

**Fig 1: Apparatus set up**



**Procedure**

Place box in direct sunlight.

Record temperature data every ten minutes during the course of the lesson,

**Data Collection**

Table 1: Table showing the various temperatures recorded during the experiment

Time (minutes) +/-1 minute	Thermometer 1 (°C) +/-1 °C	Thermometer 2 (°C) +/-1 °C
0		
10		
20		
30		
40		

**Extension**

If data logging equipment is available, the change in temperature can be monitored continuously over the same period of time.

**Data Presentation**

Present data appropriately

**Conclusion**

How does this relate to your understanding of the greenhouse effect?

How can this simple demonstration be manipulated to look at the enhanced greenhouse effect?

Carry out this experiment in the next available practical lesson

**STRATEGIES**

Experiential learning: practical work in tandem with theory

Subject material with “real life applications” and connections to the world outside the classroom

Diversity of teaching methods, resources and aids

A participatory approach to class, with students taking responsibility for contributing

Students challenged to develop their own, well-founded ideas and express them in their work

Collaborative work amongst students and between students and teacher

## Jelena Marković & Željko Mikulić

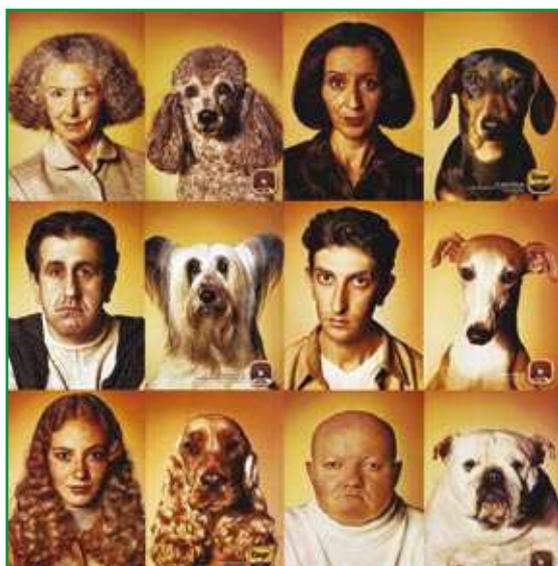
Exemplar Material title: Isomers

Subject: Chemistry

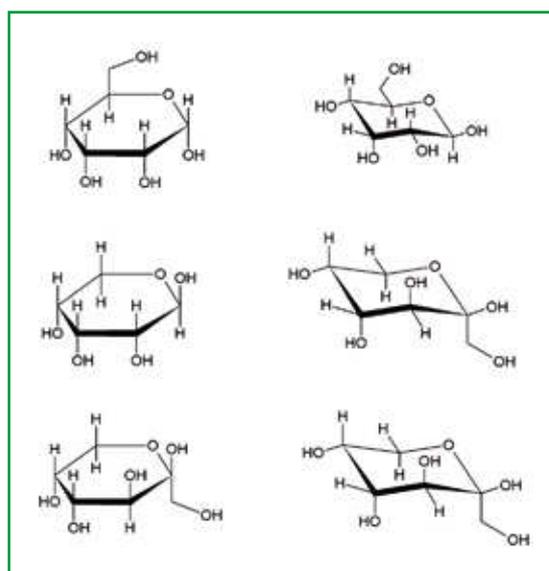
### Similar but Different!

Many things look similar, but they are completely different!

FIND THE DIFFERENCE!



These images were taken from Cesar dog food advertisements



### STRATEGIES

Participatory, collaborative work

## **Miroslav Vulić**

---

**Exemplar Material title:** Chemistry of Life

**Subject:** Biology

---

### **STAGE 1: Chemical elements and water**

Duration 2.5h

#### **INTRODUCTION:**

You need 1.5 hours for theory and 1 hour for practice

During this stage, students are introduced to biochemistry, with structure of water and other important elements in living organisms.

Refer to the Space: **stage 1 - Chemical elements and water** (there is a power point presentation and additional material for lab work\* \*).

#### **\* \*LAB PRACTICE**

##### **OSMOSIS IN POTATO CELLS**

For this practice you need:

- potatoes
- Petri dishes
- scalpels
- sugar

##### **Intoduction:**

1. Make three potato cups from raw potatoes cut in half: cut a depression in the top, peel skin off the sides, and give each a flat base.
2. Boil one cup. Place the cups in Petri dishes of water. Pour sugar into the boiled cup and into one of the raw potato cups. Leave one cup empty.
3. Observe and describe what happens to the sugar, and what happens in the empty cup. Explain what happens in the three cups. Why was one cup left empty? What conclusions can you draw about osmosis in living and dead cells?

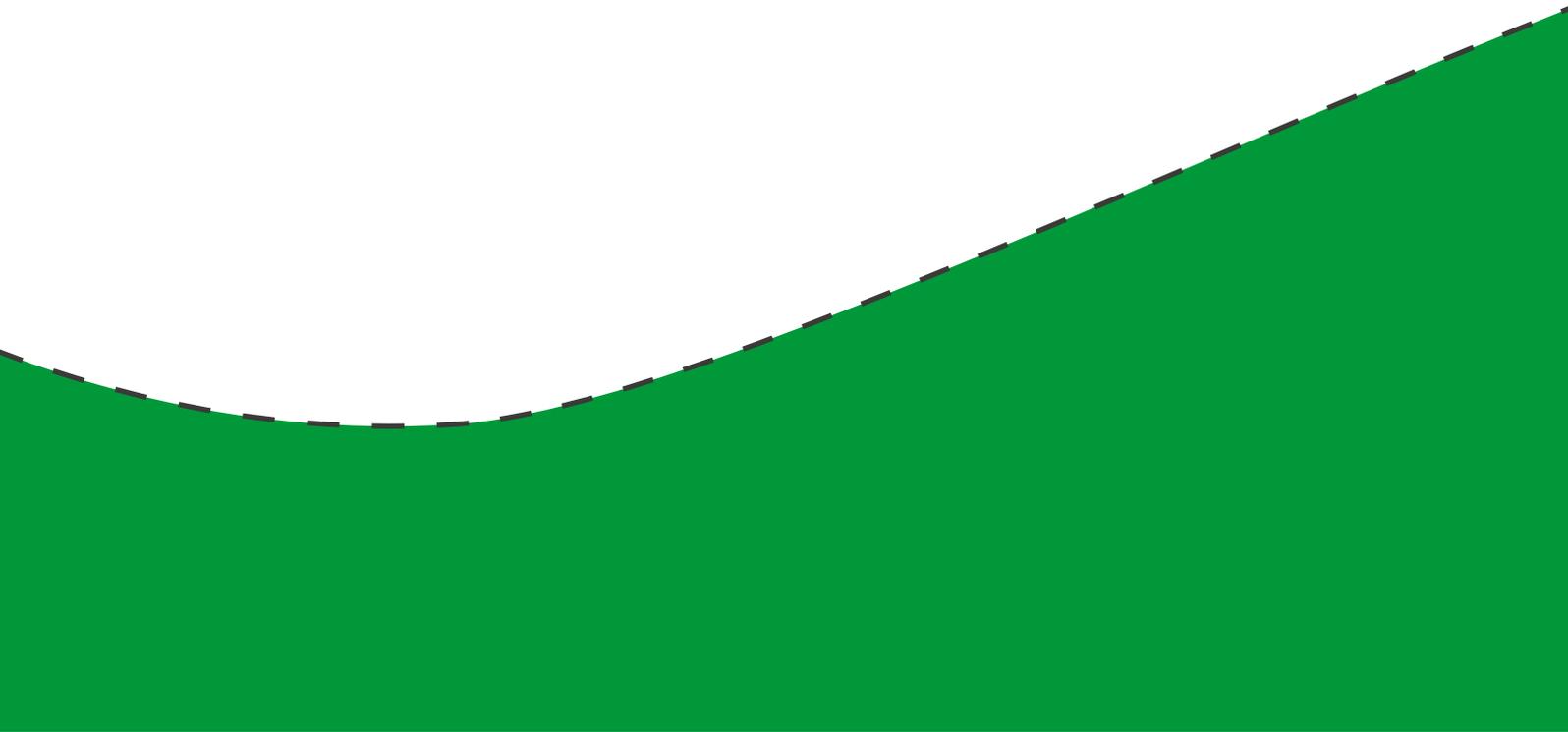
The whole scheme of work is based on Sections 3.1 - 3.5 in the core of the IB Biology course<sup>1</sup> which looks at the “chemistry of life”. There are varieties of resources that can be used here e.g. websites, animations, worksheets from the book “Biozone”<sup>2</sup> etc.

### **STRATEGIES**

Experiential learning: practical work in tandem with theory

---

<sup>1</sup> Diploma Programme Biology Guide (March 2007), IBO, Cardiff  
<sup>2</sup> Senior Biology 1: Student Workbook (2007), Biozone International Limited, New Zealand



# THE HUMAN BEING: A COURSE OF STUDY

What it is, or means, to be a  
human being in Europe, in a  
country, in a local region, in  
a family, as an individual.  
*(Language and literature teachers)*



## 1. A MODULE ON “DUTY”

Each teacher in this thematic group developed an individual variation of a module that had originally been created collectively. The diversity of approaches illustrated in the following extracts, however, was reflected in each teacher’s own version of the original module.

[Complete texts of each teacher’s module may be seen on the “Space”]

**Subject:** English Language

---

LESSON TWO:

**WIDENING STUDENTS' VOCABULARY THROUGH THE USE OF IMAGES AND REFLECTING ON THE MEANING OF DUTY**

Time: 1 hr 40 min

**TASK 1** visual aid: 15 min

Students are first introduced with pictures related to the word DUTY. (available on the Space)  
This activity should widen students' vocabulary on one side and leave room for first reflection on etymological meaning empowered by images.

	<b>Picture</b>	<b>Vocabulary presented</b>
1	Fit for duty	A service, work or task assigned to someone
2	On duty	Guard / standing still / wearing a helmet At one's post / at work
3	Off duty	Not engaged or responsible for assigned work temporarily
4	Call of Duty	Foreground / background soldiers / troops / holding firearms / guns and rifles / artillery pieces / cannons / shells / tanks / shootingwar / firefighters and emergency service workers
5	In the line of Duty	Within one's range of authorized responsibilities
6	Duty-free	Exempt from customs duties/duty-free merchandise: e.g. cigarettes, liquors
7	Jury duty	Type of civic duty
8	Doodie duty	Do your duty

**TASK 2: brainstorming: 10 min**

Teacher writes the word duty on board. Students associate words of related concepts.  
Teacher asks students to think about people or groups who everyone has a duty towards.  
Then students elicit words which are written on board.  
Possible responses: Related concepts: willingness, obligation, responsibility, loyalty, respect, commitment, guilt. Related groups: family, school, friends, community, God.

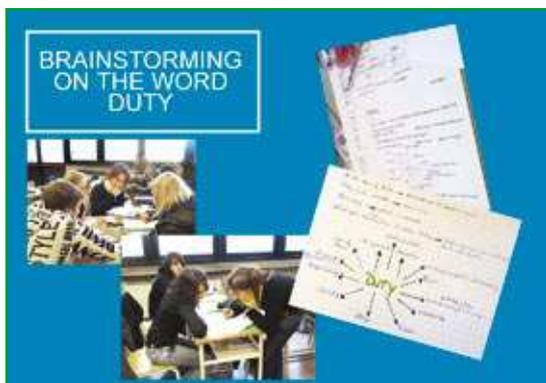
### TASK 3: group work 40 min

Students are invited to work in groups and are given worksheet 1 for instructions. Group division (5 groups of 5 members each) is suggested by Teacher and agreed on by students. A T-chart is to be prepared where positive and negative features of DUTY are given. The T-chart is to be filled in according to the outcomes of the group discussion.

### Plenary session: 35 min

Each group shows their T-chart and reports the outcomes of their discussion. Teacher shifts attention to the negative aspects and points out importance of controversy in roles in dealing with the concept of Duty. For homework, Students are asked to read "A Father-to-be" by Saul Bellow<sup>1</sup> and provide examples of role controversy from the Internet or from other sources. Besides, students are asked to provide group or individual feedback, making comments on the activities experienced and answering the following questions:

1. What part of the lesson did you find most demanding and why?
2. What part of the lesson did you find most enjoyable and why?
3. What did you learn in class? According to you, what helped or hindered your learning?



### STRATEGIES:

Participatory approach to class / Collaborative work

---

<sup>1</sup> Bellow S., 'A Father-To-Be', Seize the Day, Penguin Classics

**Subject:** English Language for advanced students

---

### How to construct a questionnaire to interview peers and parents on “duty”

#### How to construct a Questionnaire: Some assignments to think about

The wording of questions and the structure of the questionnaire will influence the answers people give.

#### **Make sure questions have these qualities:**

PRECISE - NON-LEADING - SIMPLE - CLEAR

**Value loading:** Certain words may influence people, or indicate that a certain response is expected. For example asking “Has the famine caused your family to miss meals in the last month?” may produce different responses than simply “Has your family missed any meals in the last month?”

**Precise wording:** Questions can often be interpreted in many different ways. Try to be as precise as possible to ensure that people understand exactly what is being asked. For example “Does your family have enough food?” is fairly vague. How much food is “enough”? A better way to ask the question might be “How many times does your family eat per day?”

#### **Leading questions:**

People sometimes have a desire to give the “right” answers to a questionnaire – whether or not they are actually true. Avoid suggesting a particular response.

#### **Double questions:**

Each question should focus on one issue only. Avoid confusing issues with double questions.

#### **Question structure:**

How structured should the questions be? Open-ended questions are good starting points for discussion while more structured questions are useful for obtaining specific pieces of information.

Structured questions may require:

#### **Short answers, Numerical answers, Yes/No answers, Multiple choice answers.**

Please spend this class designing your questionnaire. The aim of the questionnaire is to: Find out what your parents/peers’ attitude is towards DUTY.

You need to decide what exactly you want to know. Do you, for example, want to know which duties are most important to them OR which duties have changed over time? Do you want to know about who or what they feel a duty towards or the way they feel about duty?

You also need to think about what you want to do with the information you get from the questionnaire.

You should be able to compare different people's ideas of duty. Do you want to be able to compare ideas of duty across different cultures or between age groups? Is it worth designing a questionnaire for both parents and peers in order to make the results comparable?

In your groups decide how you are going to conduct the questionnaire. For people 'interviewing' their parents, are you going to interview one or two people? If students are in contact with aunties and uncles or grandparents by email do you also want them to be 'interviewed'? Will you need to translate the questionnaire into your own language? For people 'interviewing' peers, how many peers do you want each person to 'interview'?

**You have three classes to:**

1. Decide what you want the questionnaire to measure
2. Decide on probable outcomes of the questionnaire
3. Decide how you will report the findings of your questionnaire – You might want to do this using statistics (e.g. presenting graphs and tables), using photographs of your subjects, using quotes from your subjects or anecdotes etc. You might want to appoint someone to make recordings or take photographs of your subjects.

In the first class please aim to discuss these points and make notes. In the second and third class, you will actually write out the questionnaire. Ask one member of your group to bring a laptop. You also need to appoint one student to either take photographs of your discussion tomorrow or record the discussion.

## Evaluating Students' Work: Criteria

The students gave their presentations. Each group was asked questions about their data by the other group. They were assessed according to the IB English A2 oral component marking criteria below. Additionally the students were asked to report on the contribution made by each team member to the process.

CRITERION A: QUALITY OF IDEAS	CRITERION B: PRESENTATION	CRITERION C: LANGUAGE
<ul style="list-style-type: none"> <li>- How well does the candidate know and understand the subject matter</li> <li>- To what extent are the candidate's ideas relevant and focused?</li> <li>- Is there evidence of critical thinking?</li> <li>- Has the candidate shown an appreciation of language and style?</li> <li>- Are the ideas supported by relevant examples and illustrations?</li> </ul>	<ul style="list-style-type: none"> <li>- How effective is the organization of the oral task?</li> <li>- How coherent is the structure?</li> <li>- Are examples and illustrations well integrated into the oral task?</li> </ul>	<ul style="list-style-type: none"> <li>- How fluent, varied and accurate is the language used by the candidate?</li> <li>- How appropriate to the oral task is the candidate's choice of register and style? (Register and style include the selection of appropriate vocabulary, structures, tone, etc.)</li> </ul>

## STRATEGIES

Connections to the outside world – Students develop own ideas

Collaboration between students and between students and the teacher

**Subject:** English Language

---

### **Independent Investigations using Questionnaires Created by Students**

**Ask teenagers what duty means to them**

**Interview Questions:**

1. Define the word duty
2. What is the biggest duty in your life?
3. Do you think of finishing school as a duty?
4. Have you got any duties at home?
5. What duties do you have towards your family and friends?
6. Do you consider volunteering in your community as a duty?
7. Is showing respect a duty?
8. Name one duty towards your girlfriend/boyfriend.
9. Do you think of a duty as a positive or a negative thing?
10. What would your life look like without any duties?

#### **SOME FINDINGS (full details may be found on the “Space“)**

- People define the word duty in different ways. While some think of it as a negative obligation, others think that it is a way to fulfil their days in a positive way..
- 64% thought that their biggest duty was to finish school.
- 6% thought it was not disappointing their parents, and
- 10% thought that staying loyal to themselves was the biggest duty for them
- 80% of them believe that being loyal and trustworthy towards their family and friends is also a duty, while 20% believe that they do not have any duties towards friends and family because according to them a duty is a negative thing and they think of showing affection. Nothing is hard when it is for your loved ones.
- 25% think that duty towards boyfriend/girlfriend is that he/she should never find out that they are cheating on him/her,
- Another 25% think that the duty towards them is to treat them as they treat you,
- The other 50% believe that the only duty towards them is to be honest.
- In conclusion, 90% of them agreed that a life without duties would be boring and meaningless while only 10% believe that their life in that case would be a pure heaven!

### **STRATEGIES**

Connections to the outside world – Students develop own ideas

**Subject:** English Language

---

**STAGE 3:**

**Leading students from an individual to a community perspective**

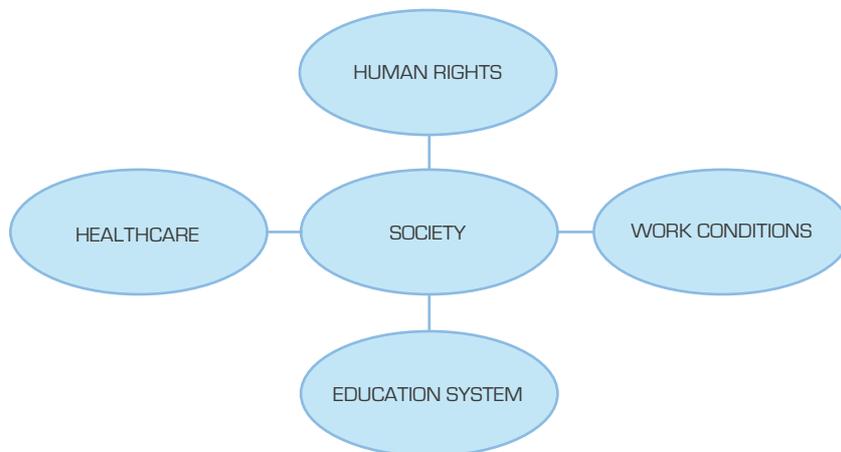
**AIM:** Understanding the same subject (Duty) from another perspective

**TIME:** 4 lessons (55 MIN. EACH)

**TASKS:** Discussion, writing, group presentations

**LESSON 6:**

**Duties of society toward an individual: discussion**



## **LESSON 7:**

**Writing a newspaper article SOCIETY – INDIVIDUAL** (students' choice of the issue and the type of article – news article, column, feature article)

- students should take care not only about the topic and the way it is elaborated but also of the article layout (title, bullet points, subtitles, photos)

## **LESSON 8 & 9:**

**Group presentations on the topic 'The Way I See Duty'** (Power Point)

(students' free choice of the issue of presentation)

Samples of students' work may be seen on the Space in Materials in Action!

## **STRATEGIES**

Subject material with “real life applications” and connections to the world outside the classroom

Diversity of teaching methods, resources and aids

A participatory approach to class, with students taking responsibility for contributing

Students challenged to develop their own, well-founded ideas and express them in their work

**Subject:** English Language

---

### STAGE 2: Community perspective

**TASK 1:** Role play

**AIM:** to take on specific roles and related responsibilities.

**Materials:** notebooks or sheets of paper

In groups, students think about duty in different contexts. It depends on your students which topic they will choose (for example, musical group, sports team, family, work etc.). For this pilot, students chose three contexts: friends, family and school and divided into three groups. Each group should write a short sketch of controversial situations within the chosen context. The teacher can provide some guidelines or questions, such as: How does duty feature in each of these groups? What are your duties? What are the duties of other people in these groups? Are there rules that regulate duty? Are there consequences when duties are not respected?

The students assign themselves roles and act the sketches out:



#### **TASK 4:** Making posters

**AIM:** to encourage collaborative work among students

**Materials:** everything you need to make posters

Each group makes a poster about their topic (friends, family and school). They can include any materials they used (extracts from texts, quotations, photos etc.) and ideas and conclusions they came up with during the project. In the end they present their posters in front of the class, answer the questions from other groups and discuss the topic.

Example of the poster:



#### **STRATEGIES**

Subject material with “real life applications” and connections to the world outside the classroom

Diversity of teaching methods, resources and aids

A participatory approach to class, with students taking responsibility for contributing

Collaborative work amongst students and between students and teacher



## 2. A MODULE ON HUMAN RIGHTS

Each teacher in this thematic group developed an individual variation of a module that had originally been created collectively. The diversity of approaches illustrated in the following extracts, however, was reflected in each teacher's own version of the original module (Complete texts of each teacher's module may be seen on the "Space")

***Daniela Žiža (Croatian Language) & Vanja Kajgana (English Language)*** \_\_\_\_\_

## **STAGE 2: FROM AN INDIVIDUAL TO A UNIVERSAL PERSPECTIVE:**

### **Introducing the Universal Declaration of Human Rights**

---

#### **LESSON 4**

#### **Learn and reflect on the Universal Declaration Of Human Rights**

**AIM:** To introduce, learn and reflect on the Universal Declaration Of Human Rights, when and why it was created and by whom

**TASK:** Introducing and learning about Universal Declaration of Human Rights, discussing different cases/tasks

Teacher cuts printed copy of Universal Declaration of Human Rights into thirty individual articles and distributes them around classroom. Students read the articles one by one, standing up when it is their turn to read. Students admit that even if they have never seen the whole Declaration, they are familiar with most of the rights and that it is very important for all the people to know them.

Teacher gives background on Declaration, when it was first introduced, etc. All students get a copy of the Universal Declaration and comment on it.

Students are then again separated into groups of four and given different cases/tasks (all the tasks/cases are taken from the book: "Teaching Human Rights - Practical Activities for Primary and Secondary Schools", OHCHR) to discuss. One group is, for example, given the case 'A journalist has disappeared'; second group 'When is old enough?'; third group gets the task to write 'Words that Wound'; fourth group needs to think of classroom needs and responsibilities, fifth group thinks of an 'Imaginary Friend' and finally sixth group is discussing the case 'Packing your Suitcase'.

#### **Optional activity:**

Teacher gives the students photographs of children whose rights are violated (for example, children in Africa) and the conditions they live in. There is a small comment below every photograph (in this case comments are in Croatian language for teachers of Croatian language). Teacher asks: "Which human rights are not respected according to what they see on the photos?"

Example of a photo:



Više od milijarde ljudi živi s manje od jednog dolara dnevno, 200 milijuna djece svake godine umre zbog uzroka povezanih sa siromaštvom. U podsaharskoj Africi još uvijek je vjerojatnije da će dijete biti gladno nego da će ići u školu.

Translation in English of the comment below the photo:

More than a billion people in the world live with less than one dollar a day, 200 million kids die every year for the reasons connected with poverty. In some parts of Africa it is still more possible for the child to be hungry than to go to the school.

## STRATEGIES

Subject material with “real life applications”

Participation

**Experimental materials title:** Human Rights

**Subject:** Croatian Language and Literature

---

### **Approaches to a Literary text : Story of Breza**

**AIM:** To introduce students to human rights and encourage them to understand human rights in a concrete situation via a literary text

The students study the text of Universal Declaration of Human Rights from 1948. Then they read a short story: Slavko Kolar, Breza. The assignment is to recognize what human rights are violated in that story.

(The story is about young girl Janica who lives in Slavonian village with her husband Marko and his parents, brothers and their wives. She must work hard all the time, and when she became ill, no one wanted to call the doctor for 5 weeks and she died because of that.)

In class, the students discuss their conclusions.

**TASK:** Role play – COURTROOM

**AIM:** To encourage students to think about violating human rights in community and psychological analysis of characters

The students choose their roles and prepare materials for the courtroom. They break into pairs and groups (members of the jury help the students who got main roles). The situation: Marko, Janica's husband will be tried and convicted for Janica's death.

**TASK:** COURTROOM

**AIM:** To encourage students to express themselves easier and to have less stage fright of talking in public

The roles are: a judge, an accuser, a defender, an accused, the witnesses and a jury.

**TASK:** Written assignment

**AIM:** To reflect on meaning of human rights through individual writing process

Each student writes an individual essay: "Human rights in my community".

### STRATEGIES

Subject material with "real life applications" and connections to the world outside the classroom

A participatory approach to class, with students taking responsibility for contributing

Students challenged to develop their own, well-founded ideas and express them in their work

Collaborative work amongst students and between students and teacher

**Subject:** English Conversation

---

### A MODULE ON HUMAN RIGHTS

Each lesson lasts 50 minutes

#### LESSON ONE: Introducing the concept of rights

##### WHO IS RIGHT - WHAT IS RIGHT?

###### TASK:

**To reflect on right and wrong in our everyday life**

This is a short class activity led by the teacher who writes "Who is right?" on the board. The teacher describes familiar situations which present ethical/moral issues.

###### Examples:

- A student hasn't done his/her homework. He/she asks another student if he/she can copy his/hers. The student refuses.
- The classroom window is cracked. All the students know that John hit it while he was swinging his chair around between lessons. He doesn't admit it and the whole class pays for a new window.
- When police control car speed on the roads in Italy, drivers warn cars coming from the opposite direction to slow down by flashing their headlights. Drivers protect each other from police speed controls. Students think of other situations in the family, in the community etc.

In pairs, the students discuss the issue and decide who/what they think is right and why.

Then each pair thinks of a new situation. Some answers and situations are reported to the class.

#### LESSON THREE - FOUR

###### TASK:

**To reflect on the documents containing the norms which regulate life in our school community**

Teacher asks students about what rights and responsibilities there are in the school community and how and where they are defined. (Answer: **Statuto degli studenti**, and the **Regolamento d'Istituto**)

Copies of the statute are distributed and read in small groups.

NB Rules are made so that rights can be respected.

Students are invited to analyse the documents and discuss these questions:

- a) What rules/rights are most important?
- b) How are the rules related to the rights?
- c) Which rules/rights are not respected in our school?

## LESSON ELEVEN

Teacher brings newspaper and magazine cuttings, comic strips, photos to the classroom. They all involve topics relating to human rights: extreme violence against women, discrimination against homosexuals, cases of bullying, rights of workers, child labour, freedom of speech, the death penalty.

### TASK:

**Students are invited to choose a topic related to human rights**, on which to collect current affairs material and historical data in order to write an essay, which will also be presented orally to other students at the end of the module. Students should also find ordinances, decrees, laws and treaties relating to the topic, at a local, national, European and world level.

## CONCLUSIONS

The module was considered interesting and mind-opening by the students, who appreciated both the contents and the study methods. Although group work and cooperative learning strategies are not new to them, they were stimulated by applying them to such important issues. At first, it was difficult to get them to feel that human rights are something that regards them and their world today, and not just other people in other worlds, and in the past.....By choosing issues that the students could relate to, by helping them to reflect on how human rights are related to everyday problems, by encouraging them to choose a specific area of interest to focus on for their essay and oral presentation, by linking the work to other subjects taught by other teachers in the class, by creating connections with other students in other classes in other countries, it was possible to get the students to feel involved in the concept of human rights, aware of how very important they are, and conscious of the fact that from the simplest daily issues at school and in the family, to the most dramatic episodes on a world scale of violence, illness, corruption, exploitation and injustice all involve human rights.

## STRATEGIES

Subject material with “real life applications” and connections to the world outside the classroom

Diversity of teaching methods, resources and aids

A participatory approach to class, with students taking responsibility for contributing

Students challenged to develop their own, well-founded ideas and express them in their work

Collaborative work amongst students and between students and teacher

