



Education and Culture DG

Lifelong Learning Programme

**“Teaching innovatively (with focus on ICT)
and its impact on the quality of
education”**

Teaching activity n° 1

SCREENPLAY:

Einstein in Wonderland

(Einstein nel paese delle Meraviglie)

Title	Einstein in Wonderland
Nation	ITALY
Subject	Physics - English

Educational Goals

- Promoting familiarization with ITC and the LIM
- Learning physics through the use of a target language different from that commonly used (English), in CLIL methodology
- Acquiring the specific vocabulary of physics topics, under study in English
- Understanding the basic concepts of the theory of special relativity and general relativity
- Understanding the resolution of apparent paradoxes that arise within the relativistic matter

Methodology

- Brainstorming
- formulation of hypotheses
- search
- construction of path
- collaborative activities



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Organization of activities

Motivation

Einstein in Wonderland

(Einstein nel paese delle Meraviglie)

Description of the stage and step in articulating

Motivation

The objectives of the teaching activity “Einstein in Wonderland” are to promote the familiarity with the new technologies and, particularly with the LIM; to learn physics through a different language, that is English, using the method CLIL; to learn the specific vocabulary of subjects of physics, in English.

To reach these objectives we are using brainstorming, formulation of hypothesis, researches, building of the work, teamwork.

The starting point has been the film “Alice in Wonderland” because students know it and enjoy it very much-Besides “Alice” is a great success and so it is possible to find a lot of material in Internet. The material is available in all foreign languages and the film deals with several themes which can be the starting point for reflections and multidisciplinary debates.

In this teaching unit, the LIM will be used as a big screen, arousing the students’ attention, with the possibility of entering Internet databank.



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Sequence 1

Description of the sequence



Let's start the activity showing gradually on the LIM the poster of "Alice". Let's use the LIM's spotlight to highlight some details. Let's ask some questions in English.

- What kind of film is it?
- Where does the action take place?
- Who do you think are the main characters?
- What are they wearing? What are they doing? what are their facial expressions? How old are they?
- What's the title of the film?
- Do you know the actors starring in the film?
- Have you ever seen the film or read the book?
- Did you like it?
- Can you summarize its story?
- Was the film a success?

Role of ICT in the sequence

At first the LIM is used to show the posters of the film "Alice", previously searched through Google. The posters are showed using the LIM's spotlight.

What does the teacher

The teacher asks some questions in English.

What do students

The students take part in discussions in the English language.



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Sequence 2

Description of the sequence

Students look for some news on the film “Alice” in sites in the English language and then they share them with the class. Here is the technical card English:

[http://en.wikipedia.org/wiki/Alice_in_Wonderland_\(2010_film\)](http://en.wikipedia.org/wiki/Alice_in_Wonderland_(2010_film))

Role of ICT in the sequence

In this sequence the LIM is used as screen for the whole class. Internet allows to search for the information with Google and to save them.

What does the teacher

The teacher suggests the web-quest and guides students.

What do students

Students work together, searching for information which are then saved in notebook's pages. They answer the teacher's questions.

Sequence 3

Description of the sequence

Students are asked to search for the opinions on the film, expressed by spectators; to select the opinions which better reflect their ideas; to underline the expressions used to appreciate, criticize, justify one's opinion and give advice.

Role of ICT in the sequence

The LIM is used as screen for the whole class. Internet allows to search for the information with Google and to save them.

What does the teacher

The teacher suggests the web-quest and guides students.

What do students

Students, divided in small groups (2-3 students), search in internet. The result of the quest is then reported by each group. The page created contains a selection of the opinions on the film. An activity of underlining and classification is done on the text.

Critic Reviews for Alice in Wonderland

Top Critics | All Critics

Its single biggest failing – an affront to Lewis Carroll and the charms of nonsense literature – is the fact that it makes sense.
Full Review | Comments (10) March 5, 2010
Amy Biancolli
Houston Chronicle
★ Top Critic

A visually imaginative fairy tale that suffers slightly from its predictable course but still manages to wow at all the crucial moments.
Full Review | Comment March 5, 2010
Tom Long
Detroit News
★ Top Critic

A film adaptation should, of course, treat its source material as inspiration rather than dogma. But did Burton have to get the books so entirely wrong?
Full Review | Comments (3) March 5, 2010
Dana Stevens
Slate
★ Top Critic

Lewis Carroll is bent over a table, tears filling beneath his eyes. Something in your heart breaks. Your childhood, perhaps?
Full Review | Comment March 1, 2011

The true three-dimensionality here is the old-fashioned kind – Waskowska's fully rounded performance. Throughout the technical razzle-dazzle, we keep returning to the pallor of that face, the gravity in those eyes.
Full Review | Comment March 5, 2010
Rick Groen
Globe and Mail
★ Top Critic

Burton and Disney have found a glorious way to interpret fairy tales and fantasies.
Full Review | Comment March 5, 2010
Claire Martin
Denver Post
★ Top Critic

A succession of chases and fanciful combats, more akin to Dungeons & Dragons than to Carroll, leads to a peculiarly truncated climax. The 3-D effects are enjoyable, but the added depth can't make up for deficits in the concept or the plot.
Full Review | Comments (3) March 5, 2010
Joe Morgenstern
Wall Street Journal
★ Top Critic

Burton's imagination never lets up ... and while



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Sequence 4

Description of the sequence

Webquest and Download of "Alice" movie-trailer. Trailer viewing
(Ricerca e acquisizione del video trailer di "Alice". Visione del video)

[Alice trailer](#)

Role of ICT in the sequence

The LIM is used as screen for the whole class. Internet allows to search for “Alice” movie-trailer.

What does the teacher

The teacher suggests the web-quest and guides students.

What do students

Students search for the official movie trailer on YOU TUBE and download it creating a hypertextual link.

Sequence 5

Description of the sequence

(Attività di ascolto e comprensione orale/ Attività di produzione orale a partire dai dialoghi del trailer)

In this sequence the teacher and students interact during the activities of reading comprehension: first with general questions and then with activities aimed at reflecting on the language and classifying language elements.

Role of ICT in the sequence

The LIM is used as screen for the whole class.
The process of correction and evaluation could be accelerated and simplified through the use of responders.

What does the teacher

The teacher sets the students several exercises in the English language such as cloze-test and questionnaires.

What do students

Students work on the LIM on a page which has been previously prepared, half-structured and well-organized in levels. A hypertextual link could be useful to draw the attention on the movie more times. After that students create and carry out exercises using the morphological elements of the sentences. The LIM's instruments are run by students in pairs.



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Sequence 6

Description of the sequence



Let 's start the activity visualizing gradually the images linked to the themes of the teaching unit in the CLIL method. Let's use the LIM 's spotlight in order to highlight some details. We ask some questions in the English language in order to single out the possible links between “Alice” movie and the “theory of relativity”.

Role of ICT in the sequence

The LIM is used as screen for the whole class.

What does the teacher

The teachers incite the discussion both in L1 and L2, encouraging students to advance hypothesis and to reflect on space and time concepts and on measure instruments.

What do students

Students take part in the debate.
They have the chance of observing, asking questions problematizing, reflecting on physics's typical procedures and finding information.
May also learn how to use a specific language.



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Sequence 7

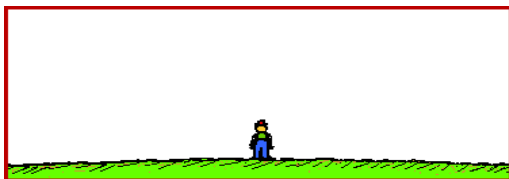
Description of the sequence



Small ship which travels at
10% speed of light.



Small ship which travels at
87% speed of light.



Small ship which travels at
99% speed of light.



Small ship which travels at
99.9% speed of light.



[La teoria della relatività spiegata facile](#)

A film clip in English is presented; it shows in an easy way the theory of relativity. The theory is then explained from a scientific point of view, using a Power Point presentation previously retrieved in Internet. On completion of didactic sequence students are asked to search for scientific film clips on YouTube, preferably from the RAI archives or from RAI educational programmes.

([Super Quark1](#) [Super Quark 2](#)) ; [Einstein spiega la sua famosa formula \$E=mc^2\$](#)



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Role of ICT in the sequence	What does the teacher
<p>The LIM is used as screen for the whole class.</p> <p>Internet gives the possibility of searching for information and material with Google and save them.</p>	What do students
	<p>The teacher suggests the web-quest, guides students, directing the quest first towards scientific documents in English and then in Italian, too.</p> <p>Students work together, searching for information and material, creating links on notebook's pages to be used during the activities of debates and study.</p>

Final reflections on the activities

In a traditional class we would have used textbooks, photocopies, audiovisual material, but students' role would have been passive because the teacher would have supplied all that.

On the contrary, in a LIM class with Internet connection, students are active searchers of information which are then classified.

Their creativity and interest are so roused.

A good command of the new instruments (LIM / internet) is gradually acquired.

Possible difficulties in the use of the LIM might depend on the students' ability at working in group, cooperating and accepting the other students' proposals.

Ricadute percepite/osservate ?

Autovalutazione del livello competenza/familiarizzazione del docente con le ICT

A good command of the new instruments (LIM / internet) is gradually acquired.

Livello di motivazione, attenzione e coinvolgimento degli studenti

Students are especially motivated, because they learn through searching and discovering.

The attention is always high and the participation is total.

Students have found this learning / discovery real and natural, more similar to what happens everyday in our contemporary society where we are up to our neck in a lot of different information and where it is important to be good at choosing, classifying and evaluating.

LLP - Comenius Meeting in ITALY	“Teaching innovatively (with focus on ICT) and its impact on the quality of education”
Gruppo di lavoro	Giovanna DE PASQUALE – Antonietta MONTANARO –
Data	19-22 marzo 2012