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SSIS CAGLIARI A.A. 2005/2006

CORSO DI MULTIMEDIALITA' E LINGUAGGI SETTORIALI

MODULO CLIL: LEAVES

Target group: learners aged 14, A1+
Pre-requisites: *simple present of to be and to have*
Language objectives: consolidate the use of linkers *because* and *so*
Time: 4 hours
Material: paper, pencils, colours, scotch, posters, photocopies
Aids: video-beamer

UNIT 1: INTRODUCTION TO LEAVES (CO-PRESENCE)

1ST STEP:
(POWER POINT SHOTS-
document: PRESENTATION 1)

1st shot

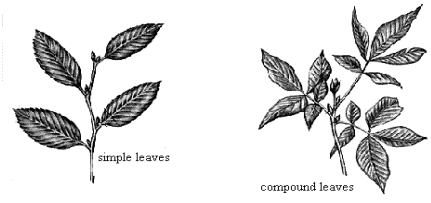
LEAVES: PALMATE AND PINNATE

2nd shot

Palmate veined leaf: the principal veins of the leaf emerge radially from a common point near the petiole, and there is no dominant central vein.
Pinnate veined leaf: paired side veins emerge serially, in "V" like fashion from the principal central vein, throughout the length of the leaf.
Parallel veined: the principal veins of the leaf emerge from a common point near the petiole, and extend to the tip of the leaf, while remaining parallel to the edge of the leaf, and to each other.

3rd shot

A **simple** leaf is a leaf in which the blade is a single unit and has got its own petiole.
A **compound** leaf: A leaf in which the blade is subdivided into several small leaves, called leaflets: these leaflets share a common petiole. The number of leaflets may vary within or between species; for example, a compound leaf may have from 5 - 7 leaflets or from 7 - 9, etc.



4th shot

Palmate compound leaf: A compound leaf in which the leaflets emerge radially from a common point of attachment on the petiole.
Pinnate compound leaf: A compound leaf in which the leaflets come out from both sides of a thick middle vein.

2ND STEP :ACTIVITY ON POSTERS (see the last page of this document, in the column co-presence)

UNIT 2: COMMON STRUCTURE OF LEAVES
(THE ENGLISH TEACHER ALONE)

1st step: warming up (P. Point document: matching)

Activity 1:
match leaves and definitions.

a 

e 

h 

b 

f 

 i

c 

d 

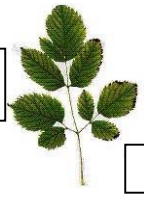
g 

 l

compound leaf …
simple leaves …
pinnate leaf …
compound and palmate …
palmate leaf …
compound and pinnate leaf …

2nd step (word document: giving reasons)

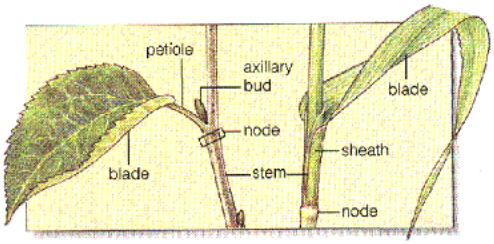
Activity 2: look at images above and complete the following table giving reasons for your choices.

a 	Leaf A is a palmate leaf.	Yes	~~No~~	
b 	Leaf A isn't a palmate leaf because it has one main vein. So it is a pinnate leaf.			
	Leaf B is a compound leaf.	~~Yes~~	No	

	Yes	No
1) Leaf **A** is a simple leaf.		
2) Leaf **B** is a simple leaf.		
3) Leaf **C** has a palmate venation.		
4) Leaf **D** is a compound and pinnate leaf.		
5 Leaf **F** has pinnate venation.		
6) Leaf **G** is a simple and palmate leaf		
7) Leaf **L** has a pinnate venation		

3rd step (power point document: presentation 2)

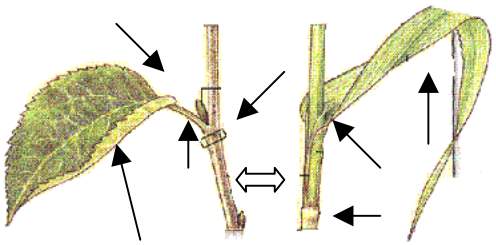
The leaf surface is called blade and it may be attached to the stem in two different ways: or through the patiole, or the leaf comes out directly from the stem; in this case, the first part of the leaf is someway wrapped to the stem and we call it sheath. The part of the stem from where the new leaf comes out is called node and the name of the newborn leaf is bud.



UNIT 3: EVALUATION

1st step (power point document: evaluation)

Look at the picture and insert the right terms from the box:



blade
node
stem
petiole
sheath
axillary bud
node
blade

2nd step Classify the leaves you find in the bag you have been given. Take into account:

- **their shape**
- **their venation**
- **if they are simple or compound leaves**

Then explain your reasons using *because* and *so*, as you did in class.

Part to be done as a team, in co-presence.	**Part only for the English teacher**	**Evaluation**
. This part should be preceded by an excursion in the countryside where the students can search for different kinds of both fallen leaves and those ones still on plants. The excursion aim is to involve students and to turn the following lesson into part of their personal experience. **.** In this lesson the two teachers work together: the Science teacher explains some simple concepts such as: the shape of leaves; venation; simple and compound leaves; explanations are supported with power point shots. The two teachers alternate in speaking, in the sense that the English teacher intervenes at crucial points to translate into English some technical terms and to repeat some explanations, obviously in English. **.** Students may get interested in what their teachers are talking about because they expect to be involved -in a few moments- in a practical activity, especially because they see before them an amount of leaves on a table; after the theoretical part, indeed, students will be asked to classify the leaves they picked up during the excursion, on the basis of the criteria mentioned above; the students are divided into groups; each group should create a poster: students should stick the leaves on the poster and write down definitions. Then the posters will be stuck on the classroom walls.	· The teacher proposes a warming up through an exercise (**activity 1**) which should help the students to revise the concepts they went trough together during the previous lesson; **.** actually, the English teacher is interested in developing the students' skill in giving reasons for what they state; so, after the correction, the teacher asks the students to do an exercise which involves the use of the linkers *because* and *so* (**activity 2**). **.** In the end, the teacher shows a Power shot with the picture of the common structure of leaves and explains it.	The students are shown the same picture as that they saw during the second lesson (**Presentation 2**): the definitions have been removed to let the students insert the right terms; **.** afterwards, each student is given a small bag containing some of the leaves they picked up in the countryside -the teacher pays attention as to include leaves presenting all the characteristics they talked about during in class-: this especially relevant to the Science teacher, while the English teacher is interested in how the students motivate their own choices.

Part only for the Content Specialist
· The colleague explains everything attaining the leaves colour, so his main topic is *photosynthesis*. · (….) · (….)