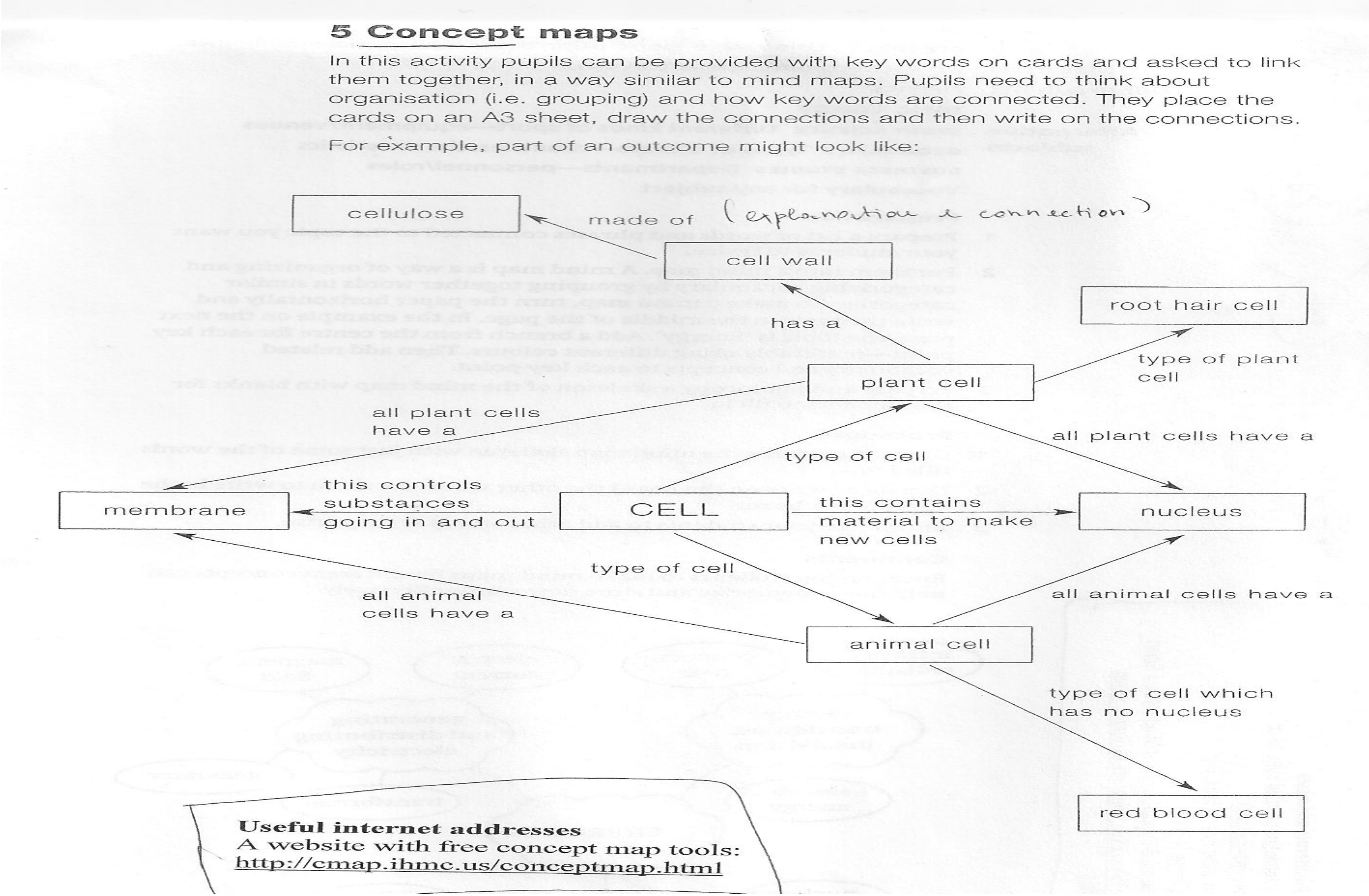
La cellula: esempio di lezione clil

- Iniziare sempre da attività pratiche (video, lavoro in power point)
- Scrivere alla lavagna i nuovi termini riguardanti la cellula ed inserirli in una tabella:conosco / conosco ,ma non uso / non conosco (docente-alunno)
- Leggere un testo sulla cellula e sottolineare con colori diversi parole note, non note, note ma non usate(docente-alunno)
- Spiegare a voce gli organuli cellulari relativamente alla dimensione,alla struttura, alle funzioni (docente)
- Laboratorio:differenze tra cellula animale e vegetale disegno ed inserisco i termini (docente-alunno)
- Scrivere che cosa succederebbe senza: mitocondri, membrana, nucleo, lisosomi, DNA , RNA… (Lavoro di alunni in coppia)
- Discussione di classe. Eventuale mappa concettuale. Gratificazioni.

Lovat, Obiso, La didattica Clil in Europa, (Progetto Comenius) 2012, dia 74 e seguenti)

MAPPA CONCETTUALE cellula



5 Concept maps

In this activity pupils can be provided with key words on cards and asked to link them together, in a way similar to mind maps. Pupils need to think about organisation (i.e. grouping) and how key words are connected. They place the cards on an A3 sheet, draw the connections and then write on the connections.

For example, part of an outcome might look like:

cellulose
made of
(explanation e connection)
cell wall
has a
root hair cell
type of plant cell
plant cell
all plant cells have a
all plant cells have a
type of cell
this controls substances going in and out
membrane
CELL
this contains material to make new cells
nucleus
type of cell
all animal cells have a
all animal cells have a
animal cell
type of cell which has no nucleus
red blood cell

Useful internet addresses
A website with free concept map tools:
http://cmap.ihmc.us/conceptmap.html

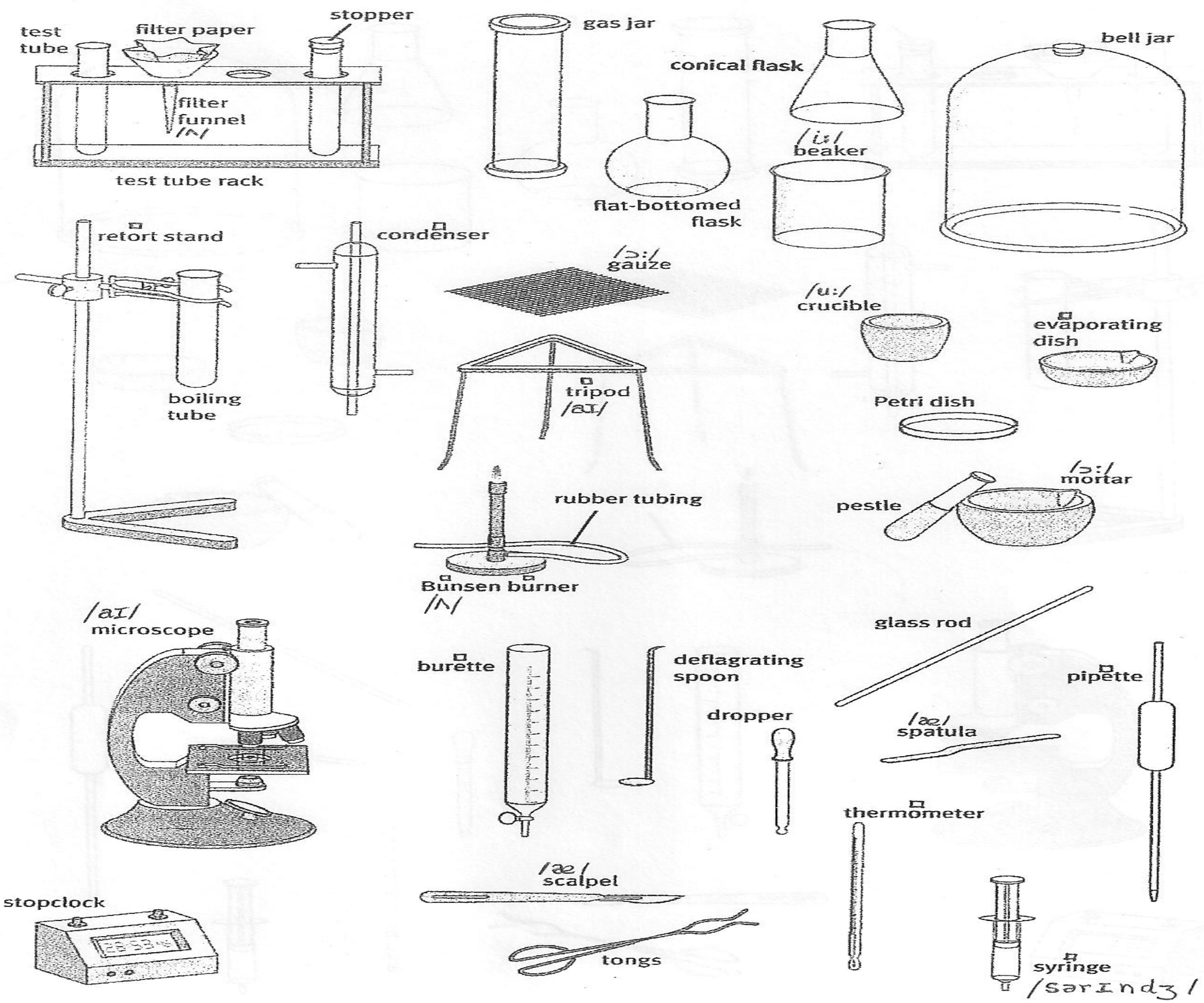
La struttura atomica: esempio di lezione clil

- Che cosa conosci della struttura atomica?
- Vocabolario (nucleus, proton, neutron, electron)
- Mettere in ordine, cercando connessioni tra loro, i seguenti termini:nucleo, orbitale, protoni neutroni, forza di attrazione, particelle sub-atomiche…). L’elenco è assegnato dal docente
- Controllare
- Spiegare al partner la struttura atomica usando le parole date
- Confronta col partner e produci una versione scritta
- Leggi il testo originale esplicativo
- Confronta quanto hai scritto con il testo
- Conclusione:completamento di un esercizio di riempimento

Osservazioni

- Lezione frontale ridotta al minimo
- Verifica continua del processo di apprendimento
- Diversificazione delle attività
- Valorizzazione dell’apporto del gruppo (gli studenti imparano da noi e tra loro)
- Esercizi pratici
- Continue gratificazioni agli studenti

Laboratory equipment


test tube
filter paper
stopper
filter funnel
/ʌ/
test tube rack
gas jar
conical flask
bell jar
flat-bottomed flask
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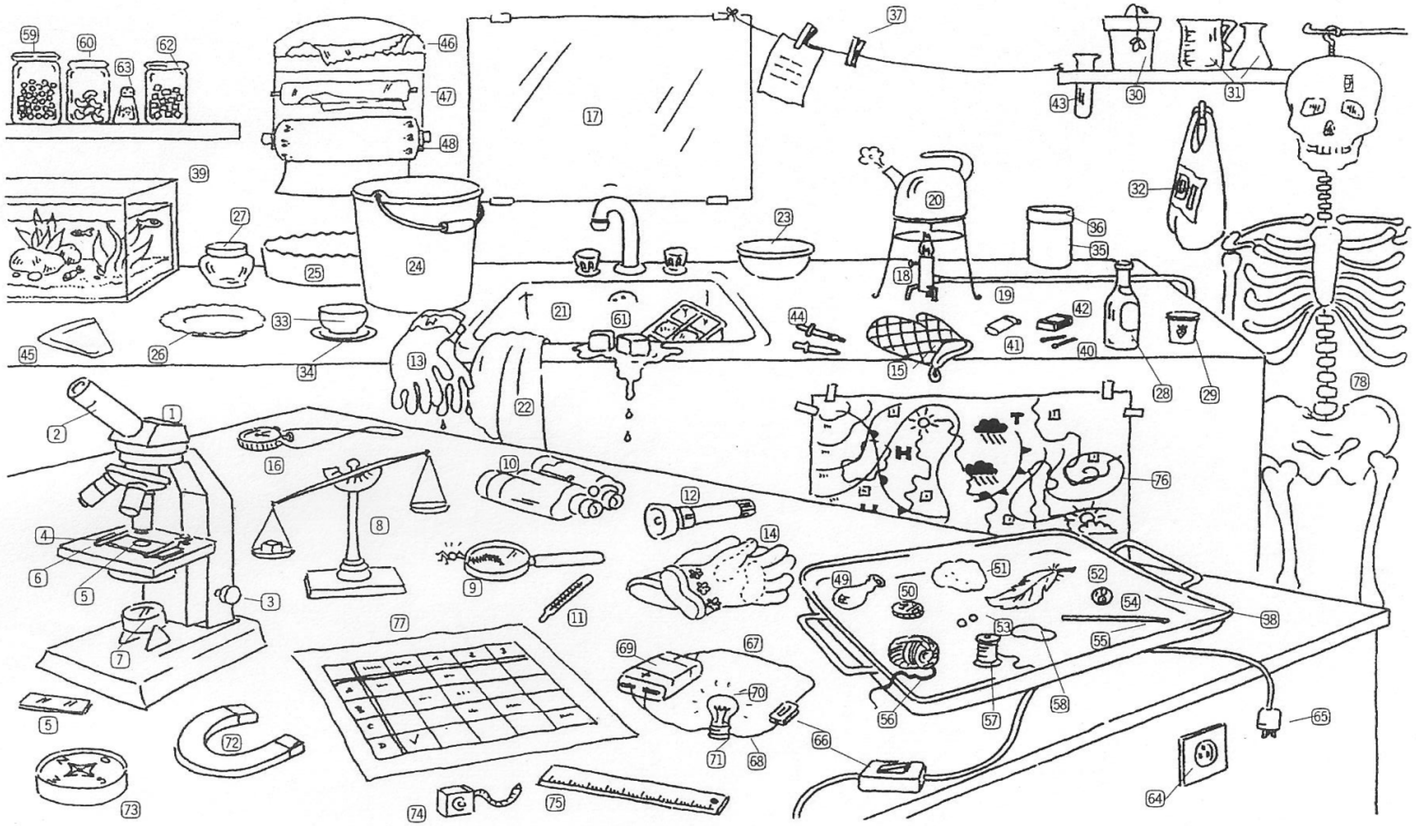
beaker
retort stand
condenser
/ɔː/
gauze
/uː/
crucible
evaporating dish
boiling tube
tripod
/aɪ/
Petri dish
rubber tubing
/ɔː/
mortar
pestle
Bunsen burner
/ʌ/
/aɪ/
microscope
glass rod
burette
deflagrating spoon
pipette
dropper
/æ/
spatula
thermometer
/æ/
scalpel
stopclock
tongs
syringe
/sərɪndʒ/

G.W.

5/7

A 09 Science

1 microscope
2 eyepiece
3 adjustment knob
4 stage clip
5 glass slide
6 stage
7 mirror
8 scales
9 magnifying glass
10 binoculars
11 thermometer
12 torch
13 washing-up gloves
14 garden gloves
15 oven glove
16 stopwatch
17 mirror
18 bunsen burner
19 gas pipe
20 kettle
21 sink
22 towel
23 bowl
24 bucket
25 dish
26 paper plate
27 jam jar
28 bottle
29 yoghurt pot
30 flower pot
31 glass container (beaker)
32 plastic bag
33 cup
34 saucer
35 tin
36 tin lid
37 peg
38 tray
39 aquarium
40 matches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41 lighter
42 matchbox
43 test tube
44 pipettes
45 filter
46 aluminium foil
47 cling film
48 tissue

49 balloon
50 coin
51 cotton wool
52 feather
53 bead
54 marble
55 straw
56 string

57 thread
58 elastic band
59 dried peas
60 beans
61 ice cubes
62 sugar
63 salt
64 socket

65 plug
66 switch
67 electrical circuit
68 wire
69 battery
70 bulb
71 bulb holder
72 magnet

73 compass (north, south, east, west)
74 tape measure
75 ruler
76 weather chart
77 survey
78 skeleton
79 skull

Internal Organs

Student A

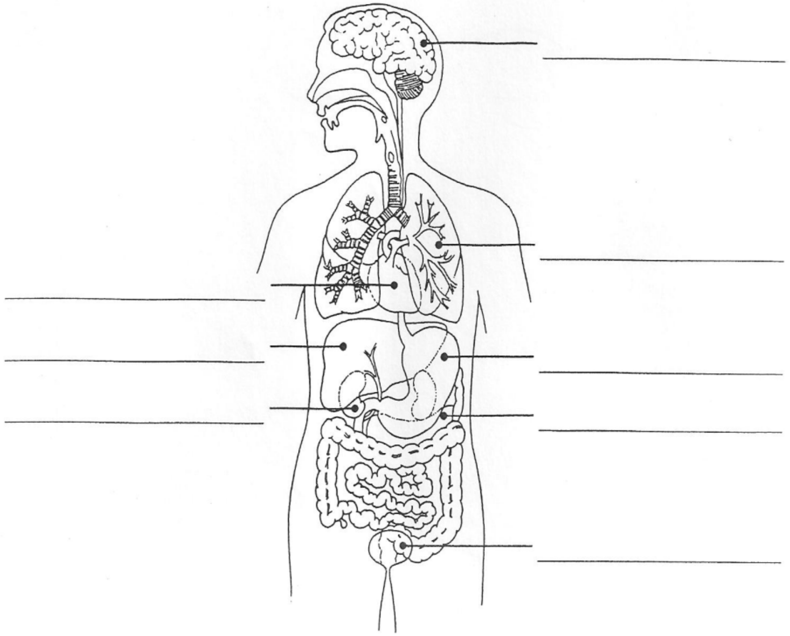
Ask your partner questions to complete the table below. When you have finished the table, work with your partner to label the picture with the correct words. Then check your answer by looking at the picture of the Internal Organs in the dictionary.

ORGAN	FUNCTION
heart	sends blood round your body
____________	cleans your blood
kidneys	separate waste liquid from your blood
____________	controls your thoughts, feelings and movements
lungs	____
stomach	where food goes after you have eaten it
____________	helps your body to digest the food you eat
bladder	____

Useful language:

What does the / do the ………………….. do?

Which organ …………………….?



Internal Organs

Student B

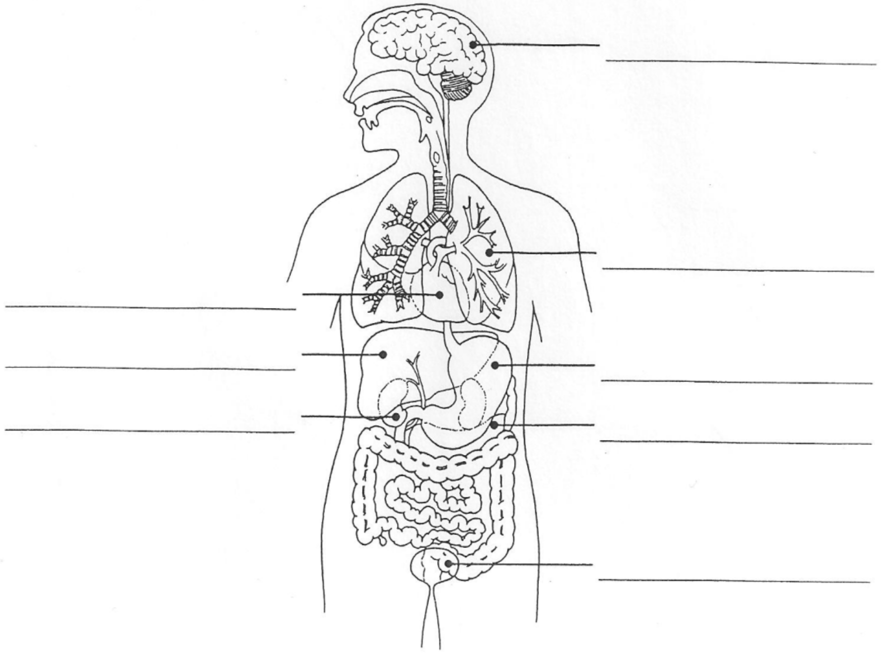
Ask your partner questions to complete the table below. When you have finished the table, work with your partner to label the picture with the correct words. Then check your answer by looking at the picture of the Internal Organs in the dictionary.

ORGAN	FUNCTION
heart	____
liver	cleans your blood
____________	separate waste liquid from your blood
brain	controls your thoughts, feelings and movements
lungs	are used for breathing
stomach	____
pancreas	helps your body to digest the food you eat
bladder	where waste liquid collects before leaving your body

Useful language:

What does the / do the ………………….. do?

Which organ …………………….?



Word search - the cell

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

CELLWALL
CHLOROPLAST
CYTOPLASM
MEMBRANE
MITOCHONDRION
NUCLEUS
VACUOLE

---

chemical reactions 1

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

ACCEPTOR
ALKALINE
BASE
BUFFER
DONOR
HYDRONIUM
ION
PAIR
STRONG
VALUE

ACID
AMPHOLYTE
BASIC
CONJUGATE
ELECTRON
HYDROXIDE
NEUTRALISATION
PROTON
TITRATION
WATER

ACIDIC
AQUEOUS
→ BRONSTED
DISSOCIATION
EQUILIBRIUM
INDICATOR
NONBONDING
SALT
→ TRANSFER
ZWITTERION

30 of 32 words were placed into the puzzle.

Solution

The digestive system

Orientation
What do you know about the digestive system?

Vocabulary
Check you know what the words on the cards mean and how to pronounce them.

Pronunciation

digestion	/daɪ'dʒestʃən/
saliva	/sə'laɪvə/
intestine	/ɪn'testɪn/
muscle	/mʌsl/
peristalsis	/perɪ'stælsɪs/
blood	/blʌd/
stomach	/'stʌmək/

Tasks
1 Put the word and phrases into what you think is the correct order.
2 Listen to the text and check they are in the correct order.
3 Practise telling your partner about the digestive system using the words and phrases.
4 Work with your partner to reconstruct the text and produce a written version.
5 Compare your written version with the original text.

Original text Oxford Student's Dictionary (OUP)

When you eat something your chewing and saliva turn the food into a paste. Swallowing sends it to the stomach where acids break it down. Food then passes into the small intestine where digestion continues and useful substances are absorbed into the blood. In a process called peristalsis the circular muscles in the intestine force the food along with a squeezing action. Finally, undigested food passes into the large intestine and your body rids itself of the waste.

When you eat something your chewing and saliva turn the food into a paste. Swallowing sends it to the stomach where acids break it down. Food then passes into the small intestine where digestion continues and useful substances are absorbed into the blood. In a process called peristalsis the circular muscles in the intestine force the food along with a squeezing action. Finally, undigested food passes into the large intestine and your body rids itself of the waste.

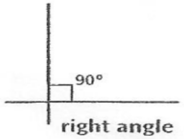
---

chewing and saliva	**turns food into a paste**
swallowing	**stomach**
acids break it down	**small intestine**
useful substances	**absorbed into the blood**
peristalsis	**circular muscles**
digestion continues	**squeezing action**
large intestine	**rids itself of waste**

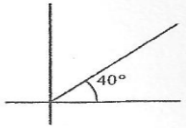
Student A

Work in pairs. Ask Student B questions to find out the missing names of the angles below.
Here is some useful language you can use:

What do you call an angle which is more / less than .... degrees?
What do you call an angle of ... degrees? It's called ... / They're called ...



right angle



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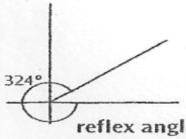
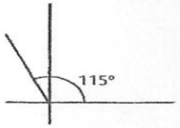


reflex angle



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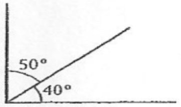
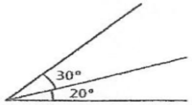


complementary angles



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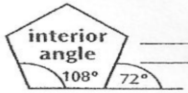
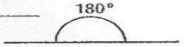

interior angle
108°
72°
____
____



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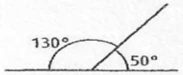
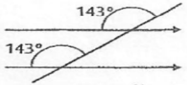
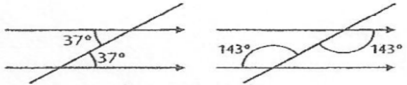


____



corresponding angles

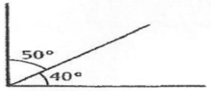

37°
37°
143°
143°
alternate angles

FOLD ---

Student B

Work in pairs. Ask Student A questions to find out the missing names of angles below.
Here is some useful language you can use:

What do you call an angle which is more / less than .... degrees?
What do you call an angle of ... degrees? It's called ... / They're called ...



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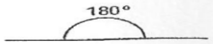
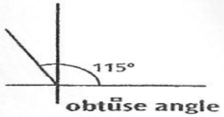
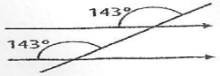


straight angle



obtuse angle



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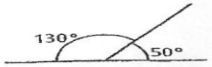
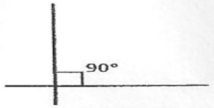


supplementary angles



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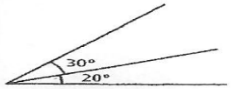
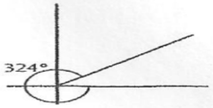


adjacent angles



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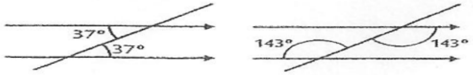
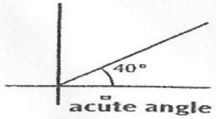
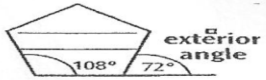

37°
37°
143°
143°
____



acute angle



exterior angle

TEMPI VERBALI CONSIGLIATI per la preparazione di una lezione CLIL

HISTORY:

- past simple
- past perfect
- past passive
- third conditional

SCIENCE:

- present simple
- present simple passive
- past simple passive
- ‘will’ future