

#Erasmus+



2018 - 2021

Index

Chapter 1

About our project

Chapter 2

What's CLIL

Chapter 3

CLIL lessons

Chapter 4

Resources to CLIL

Chapter 1

About our project



ABOUT THE PROJECT

The project was born to learn about CLIL method and bilingual teaching, its principles, techniques, effects and benefits for the students. The main object was to encourage students to learn Maths, ICT and Science, subjects considered challenging for most of the students, using a way of teaching more attractive and innovative. All the schools taking part in the project were highly motivated to put effort into achieving goals set for the project. At first the project included theoretical sessions with lectures by experts aimed at deepening teachers' theoretical and practical knowledge. In a second moment the teachers brought this new way of teaching to the classes of each institute. One of the results achieved was that of improving our teaching skills and therefore improving students' language skills and also make those subjects less difficult to and study. This project gave us the possibility to achieve another important result: the chance to use peer-to-peer learning among partner schools; in this way the school achieving outstanding results in one field could share its knowledge and experience with the others, sharing ideas and good practice among partner schools. This led schools to be more international.

Chapter 2

What's CLIL



WHAT'S CLIL

CLIL stands for Content and Language Integrated Learning and refers to teaching subjects such as science, history and maths, to students through a foreign language. It was coined by David Marsh, University of Jyväskylä, Finland (1994), as he said "CLIL refers to situations where subjects, or parts of subjects, are taught through a foreign language with dual-use, namely the learning of content and the simultaneous learning of a foreign language." CLIL is different from a language lesson, the main aim in a CLIL lesson is learning about the subject using a foreign language, while the aim in a language class is to learn the language. When you attend a CLIL lesson you combine together all the skills: listening, reading, speaking and writing. It's what happens when you study in your own language. In a CLIL class you also practise a specific language and vocabulary related to the content. In our schools what can happen is that you do specific CLIL classes or your language teacher and your subject teacher work together to do a specific CLIL project.

Some schools teach topics from the curriculum as part of a language course. This is called **soft CLIL**. Other schools teach partial immersion programmes where almost half the curriculum is taught in the target language. This is called **hard CLIL**. **Modular CLIL** programme is where a subject is taught for a certain number of hours in the target language.

| Soft CLIL | Language-led | 45 minutes once a week | Some curricular topics are taught during a language course |
|---------------------|---------------------------------|--|--|
| Modular CLIL | Subject-led | 15 hours during a term (1-hour a week) | Schools or teachers choose parts of the subject syllabus which they teach in the target language. |
| Hard CLIL | Subject-led (partial immersion) | About 50% of the curriculum | About half of the curriculum is taught in the TL. The content can reflect what is taught in the L1 curriculum or can be new content. |

You can learn about what is around you and at the same time you learn a foreign language.

What a goal!

Here is an interview to David Marsh

Mar <https://www.youtube.com/watch?v=-Czdg8-6mJA>



Chapter 3

CLIL lessons



LESSON PLAN N. 1

Teacher: Andrzej Pietrzyk

Subject: Mathematics

School: Liceum Ogólnokształcące im. Prof. Zbigniewa Religi w Gilowicach

Date: 5th February 2019

Grade: 1st year (Age: 16)

Topic: FUNCTIONS

OBJECTIVES:

- To reinforce and deepen the understanding of the basic concepts of
- Functions (basic terminologies and definitions)
- To learn the basic terminology of functions in English
- To revise the knowledge about functions.

PRIOR KNOWLEDGE:

Before the lesson, the students were provided with the set of vocabulary in English to get familiar with the mathematical terms. The lesson itself was a revision in the end of the unit devoted to functions

ACTIVITIES/STEPS:

1.

Introduction into a topic.

2.

Students listen to a dialogue for the first time and answer some simple questions about it, eg. What is the recording about?

3.

Worksheets are distributed and the students listen to the recording for the second and third time trying to fill in the gaps.

4.

The task is done together with the use of cloze test tool.

5.

A final translation of the text into Polish.

6.

Evaluation questions, eg. What did you find easy / difficult? What did you like about the lesson? Would you like to repeat it?

MATERIALS USED:

A recording prepared by the teacher himself, a paper worksheet with a gapped text, a vocabulary list, an open cloze test.

Function it is a rule between two.....
. We call it domain and The
.....or just inputs are elements of domain while the elements of the set Y are called values or outputs. A function is the relation that associateselement x from X to a element y from Y . We can present function indifferent ways. One of the simplest function it is
function. It has quite simple
 $y=ax+b$. The name of the function comes from line which is a graph of the function.numbers a and b areThe slope affects the between the graph and X axis. If two functions have the same coefficient a they have graphs. Negative slope means that the function is
Constant term affects the intersection
Zero of function it is the argument which gives us output It is solution
 $f(x)=0$.

Vocabulary

Set zbiór

Domain-dziedzina

Codomain przeciwdziedzina

Relation – relacja (tu przyprządkowanie)

Associates-przyprządkowuje

Diagram diagram

Plot/graf –wykres

Formula- wzór

Equation –równanie

Coefficient –współczynnik

real numbers liczba rzeczywista

slope nachylenie

affects wpływa

angle kąt

axis oś

parallel równoległe

negative ujemny

decreasing malejąca

increasing rosnąca

constant term wyraz wolny

intercept przecięcie

zero of function miejsce zerowe

solve rozwiązać

Transcript of the dialogue

A: Hi Dad. Could you do me a favour?

I've been sick recently and I will have a test about function on Monday

.B: Ok. What can I do for you

:A: Please, help me to systematize information about linear function.

B: Ok. Do you remember what the function is?

A: Yeh. It`s a rule between set X whic is called domain and set Y called codomain. The elements of set X are called arguments and the elements of set Y are called values.

B: Excellent but you have to know that not every relation between two sets is the unction.

A: Oh, I know, a function is a relation that associates each element of set X with a single element of set Y .

B: Do you remember kind of presentation of a function?

A: Ya, it is an arrow, table of a plot and we can see a graph as well.

B: Yes almost. You forgot that we could describe function by words and also by a formula, in another words an equation we can follow to linear function

A: Great. But why it so important?

B: It is a really good question. At first, linear function is one of the simplest functions at all. Secondly, it

A: What do you mean saying simply?

B: It has a very simple formula: $f(x) = ax + b$ in other words equation $y = ax + b$

A: Hmm... What do the letters a and b mean?

B: They are coefficients. In other words, real numbers, for each couple of numbers a and b you obtain another linear function, for example $y = 3x - 1$ or $f(x) = -2x + 3$. Then, you can make a table and a plot for each function.

A: The plot of a linear function is a straight line, hence there`s a name.

B: Excellent. Do you remember the meaning of coefficients a and b?

A: Hmm... Not really.

B: Let me remind you. The coefficient a is also known as a slope and it affects the angle between the graph and Xs.

A: So, it means that when two functions have the same slopes, they have smaller plots.

B: Good for you. They have parallel plots

A: But what if a slope is negative?

B: Excellent question. If a is negative, then the function is decreasing. If a is positive, the function is increasing. And, finally, when $a = 0$, the function is constant.

A: Ok. Let's go back to coefficient b . What does it affect?

B: b is the constant term and when Y axis intercepts.

A: Is there anything else I should know?

B: I think it is 0 function. I mean the argument which gives us output 0. Actually, it is quite easy to find. You only need to substitute y by 0 and solve the equation.

: Ok. I think I can do it. Thank you.

B: You're welcome

Lesson Plan N 2

Topic: Physical Education (PE)

Level: A2

Time: 90 minutes

**Textbook: Modern Language 1, 5th grade,
authors:Clare Kennedy, Chiara Soldi, Cristina
Rusu, Diana Todoran pages 132 133**

<https://manualedigitaleart.ro/biblioteca/art5-en1-13>

Activities from the CLIL training used: self-assessing vocabulary, mind maps

Objectives: learning new vocabulary connected with PE (train, races, relays, training sessions, etc), practicing three skills: reading (comprehension of the main ideas),

Speaking: (expressing opinions and taking part in a dialogue), writing (a short presentation)

Procedure:

T asks SS to answer questions from ex 1;

T encourages discussion about the importance of physical exercises;

·T gives SS handouts with the words highlighted in the texts and asks them to come up with their own definitions;

SS work in pairs and when they finish SS are invited to read the text in exercise 2 and answer the questions;

T checks reading comprehension

T asks students to solve and practice the dialogue in exercise 3;

SS form groups (3-4 students) randomly, T provides them with handouts containing a list of different sports and checks if the students are familiar with their meanings, if not, T stops for clarification; SS are told how to prepare mindmaps,

SS are encouraged to create groups connected with different types of sports (team sports, individual sports, water sports etc); SS are also encouraged to add as many sports as they can; one S from each group is allowed to go around the classroom and `spy` on other groups. When the mind maps are ready (the time is set according to needs and group abilities), T collects the papers and displays them on the walls of the classroom and asks SS to choose the most complete one; T makes sure that all SS have access to that mind map; instructs students to write a paragraph about their favourite sport using, as much as possible the vocabulary previously learned (exercise 5);


T explains what a fact file is; forms groups of SS and encourages them to search the net for information connected to a famous sportsperson; SS may use their mobile phones for this; when they finish


SS make an oral presentation as requested in their mobile phones for this; when they finish,

3 Why do people swim as a hobby?
 4 Where is the Queen Elizabeth Olympic Park?
 5 Is there a training pool at the London Aquatics Centre?
 6 What can people do at the London Aquatics Centre?


Swimming
 Swimming is a fun water sport. It is also a popular Olympic sport. Olympic swimmers are strong and fast. They wear a swimsuit, a swimming cap and goggles. They train hard and they usually have two long training sessions in the pool every day. They also do a lot of physical exercise to make their muscles strong. In swimming competitions, there are lots of different events, such as 50-metre races, 100-metre races and relays. There are four styles of swimming: freestyle, backstroke, breaststroke and butterfly. Swimming is also a very healthy hobby. Lots of people swim to keep fit, to relax or just to have fun with friends.


swimming cap
goggles
swimsuit


swimmer



swimmer



swimmer



swimmer



swimmer



swimmer



swimmer



swimmer


swimmer


swimmer


swimmer


swimmer


swimmer


swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

swimmer

Lesson Plan N 3

Teacher Gaetano Costa

Subject: Mechanics

School: I.I.S.S. " S. Mottura"

Topic: The Electric car, petrol engine, diesel engine and emission control

Grade : 3rd year (age 16)

Time: 60 minutes:

Activities: vocabulary, glossary, matching.

Objectives: learning new vocabulary connected with mechanics , practicing two skills: reading (comprehension of the main ideas), listening, (identify related vocabulary);

Procedure:

T presents to the SS the glossary previously prepared, SS read the matching exercise and the T asks them to demonstrate their understanding of each meaning.

At this point the T let SS watch the 2 videos. T checks that the students understood the listening. At the end, T encourages them to share their thought. The T

gives to SS 2 different readings, and asks them to identify the main ideas or specific facts of each text through skimming first and then scanning readings.

The last activity is to encourage conversation about the topic examined.

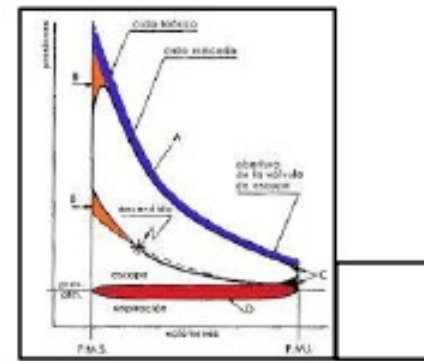
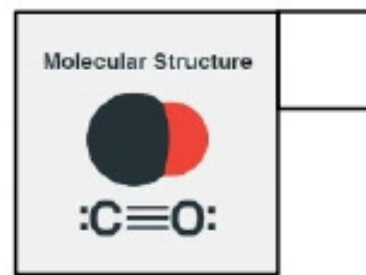
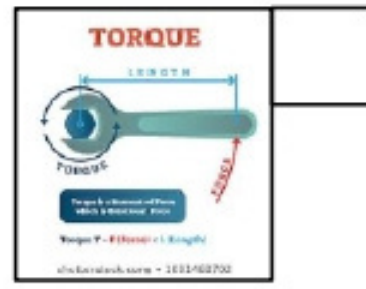
LISTENING AND READING MECHANICS ACTIVITIES

THE ELECTRIC CAR, PETROL ENGINE, DIESEL ENGINE AND EMISSION CONTROL DEVICES

NAME AND SURNAME COUNTRY

Please, match the words (1-24) with the suitable images:

| ENGLISH |
|---------------------------|
| 1. VELOCITY |
| 2. ACCELERATION |
| 3. NUMBER OF ROUNDS |
| 4. FORCE |
| 5. PRESSURE |
| 6. TORQUE |
| 7. POWER |
| 8. TEMPERATURE |
| 9. PISTON |
| 10. CYLINDER |
| 11. GASOLINE (PETROL) |
| 12. DIESEL FUEL |
| 13. FUEL |
| 14. COMBUSTION |
| 15. STROKE |
| 16. ENGINE |
| 17. THERMODYNAMIC CYCLE |
| 18. CATALYTIC CONVERTER |
| 19. POLLUTION |
| 20. HYDROCARBON (CnHn) |
| 21. CARBON MONOXIDE (CO) |
| 22. NITROGEN OXIDES (NOx) |
| 23. SULFUR OXIDES (SOx) |
| 24. PARTICULATE |



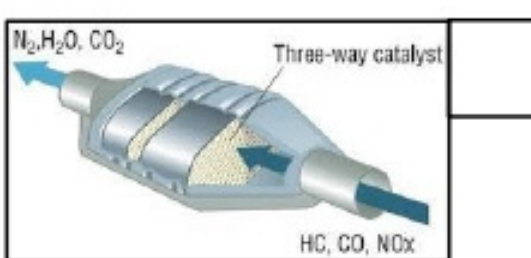
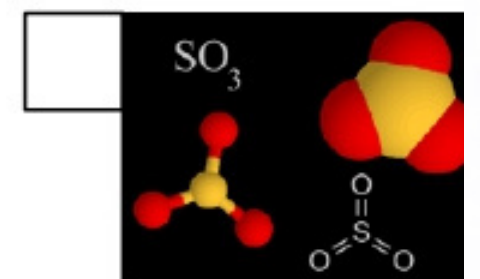
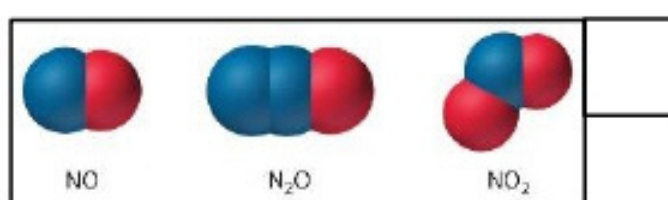
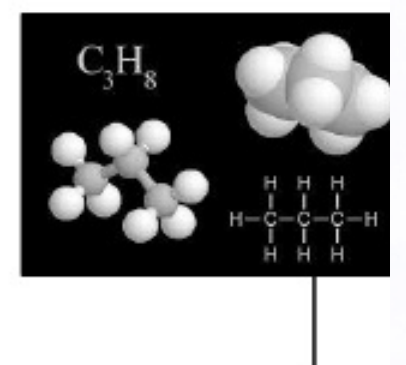
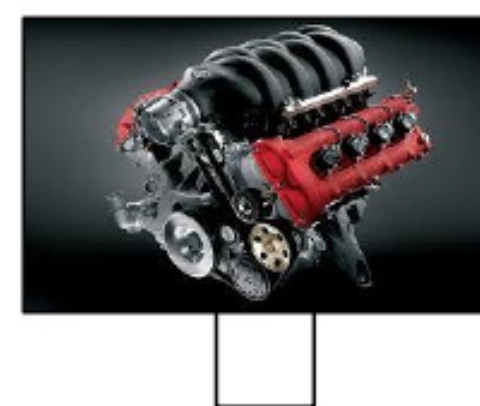
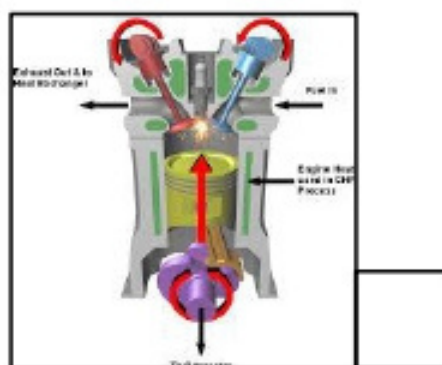
POWER
Power (W) $P = \frac{W \text{ Work (J)}}{t \text{ Time (s)}}$

$$V_{av} = \frac{x_f - x_i}{t_f - t_i}$$

$$^{\circ}\text{C} = (^{\circ}\text{F} - 32) \times 5/9$$

$$^{\circ}\text{F} = (^{\circ}\text{C} \times 9/5) + 32$$

$$a = \frac{\Delta v}{\Delta t}$$



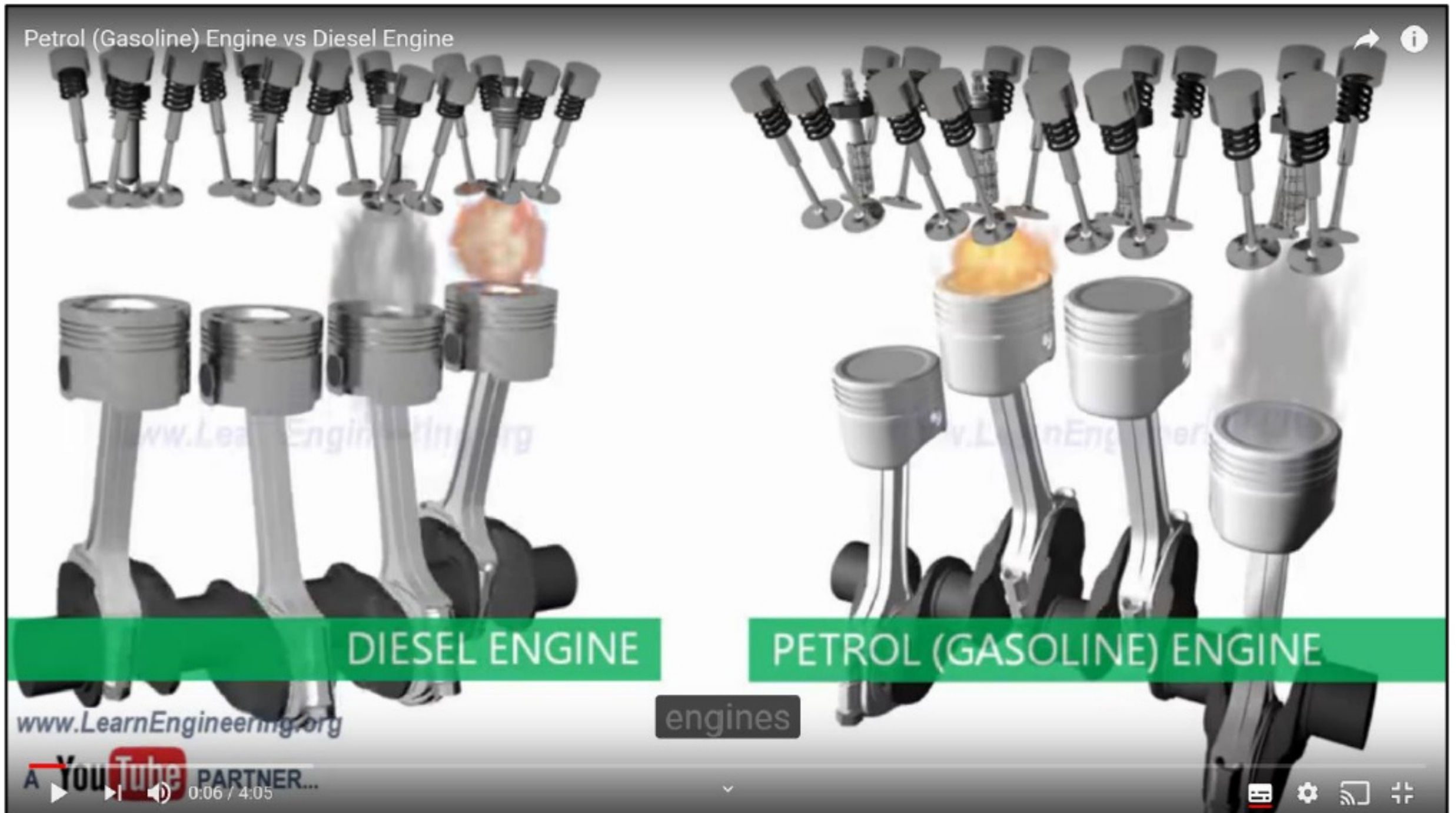
MECHANICS

GLOSSARY:

| ENGLISH | MOTHER TONGUE |
|--|---------------|
| 1. VELOCITY | a. |
| 2. ACCELERATION | b. |
| 3. NUMBER OF ROUNDS | c. |
| 4. FORCE | d. |
| 5. PRESSURE | e. |
| 6. TORQUE | f. |
| 7. POWER | g. |
| 8. TEMPERATURE | h. |
| 9. PISTON | i. |
| 10. CYLINDER | j. |
| 11. GASOLINE (PETROL) | k. |
| 12. DIESEL FUEL | l. |
| 13. FUEL | m. |
| 14. COMBUSTION | n. |
| 15. STROKE | o. |
| 16. ENGINE | p. |
| 17. THERMODYNAMIC CYCLE | q. |
| 18. CATALYTIC CONVERTER | r. |
| 19. POLLUTION | s. |
| 20. HYDROCARBON (C _n H _n) | t. |
| 21. CARBON MONOXIDE (CO) | u. |
| 22. NITROGEN OXIDES (NO _x) | v. |
| 23. SULFUR OXIDES (SO _x) | w. |
| 24. PARTICULATE | x. |

LISTENING (VIDEO 1 – time 4:05)

<https://www.youtube.com/watch?v=bZUoLo5t7kg>



LISTENING (VIDEO 2 – time 6:56)

<https://www.youtube.com/watch?v=ewcWN-rHQ6Q>



READING (TEXT 1)

HOW CAR PETROL ENGINES WORK

The purpose of a petrol car engine (gasoline in AE) is to convert petrol into motion so that your car can move with a fit velocity or acceleration, dependent on the number of engine revolutions. Currently the easiest way to create motion from petrol is to burn it inside an engine. Therefore, a car engine is an **internal combustion engine**, that means combustion takes place internally. Two things to be noticed:

- There are different kinds of internal combustion engines. Otto engines (petrol is the fuel), Diesel engines (the fuel is diesel) and so on. Gas turbine engines are other type of engines working in a rotary mode, different to the alternative movement of Otto and Diesel engines. Each has its advantages and disadvantages and the force, torque and power are different in order to reach the correct temperature and pressure and to improve the thermodynamic cycle inside the engine.
- There are also **external combustion engines**. The old steam train engines and steam boats are the best examples of external combustion engines. The fuel (coal, wood, oil...) in a steam engine burns outside the engine in order to heat water and create steam; this steam pressure sets up motion inside the engine.

Internal combustion is much more efficient (it takes less fuel per mile) than external combustion, plus an internal combustion engine is much smaller than an equivalent external combustion engine. This explains why we don't see any private cars going around powered by steam engines. Almost all cars today use reciprocating internal combustion engine because this engine is:

- **Relatively efficient** (compared to an external combustion engine);
- **Relatively inexpensive** (compared to a gas turbine);
- **Relatively easy to be refuelled** (compared to an electric car).

which puts it at or near "the top" of existing technologies as a means of moving a car around.

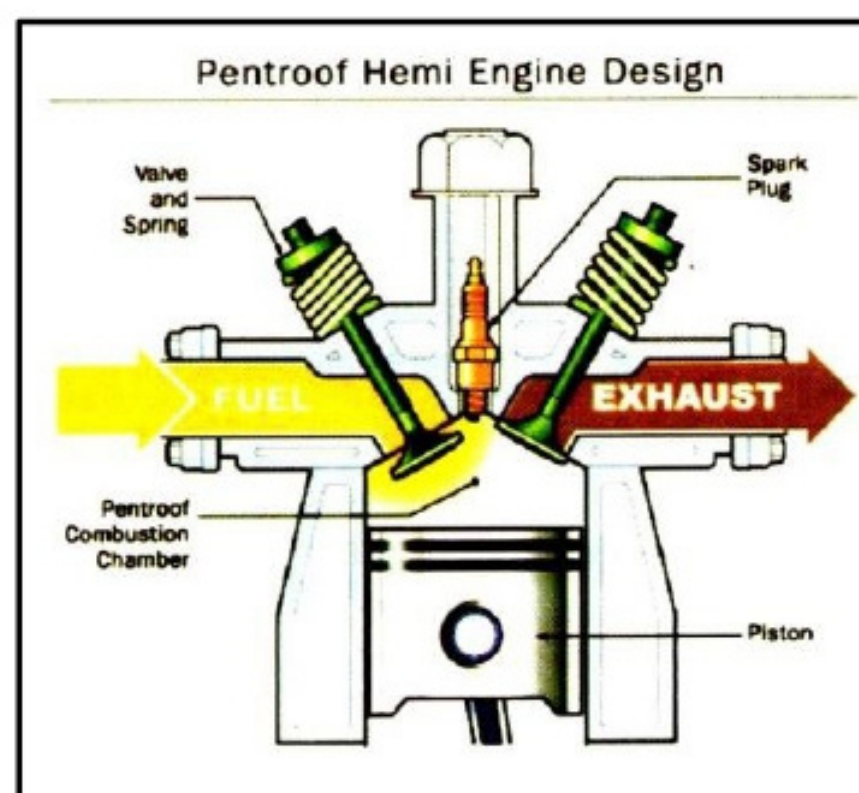
STROKES IN OTTO ENGINES

Almost all cars currently use a four-stroke combustion cycle to convert petrol into motion. The four stroke approach is also known as the Otto cycle in honour of Nikolaus Otto, who invented it in 1867.

The four strokes are:

1. **INTAKE OR SUCTION STROKE** The intake valve opens, and the piston moves down to trap air and fuel;
2. **COMPRESSION STROKE;** The piston moves back up to compress this fuel/air mixture;
3. **COMBUSTION AND POWER STROKE;** The piston reaches the top of its stroke and a spark ignites the petrol;
4. **EXHAUST STROKE.** The piston hits the bottom and the exhausted gas go out through its valve;

Now the engine is ready to start the next cycle.



READING (TEXT 2)

EMISSION CONTROL

Engine efficiency has been constantly improved with better engine design, more accurate ignition times and electronic ignition, more precise fuel metering and computerized engine management.

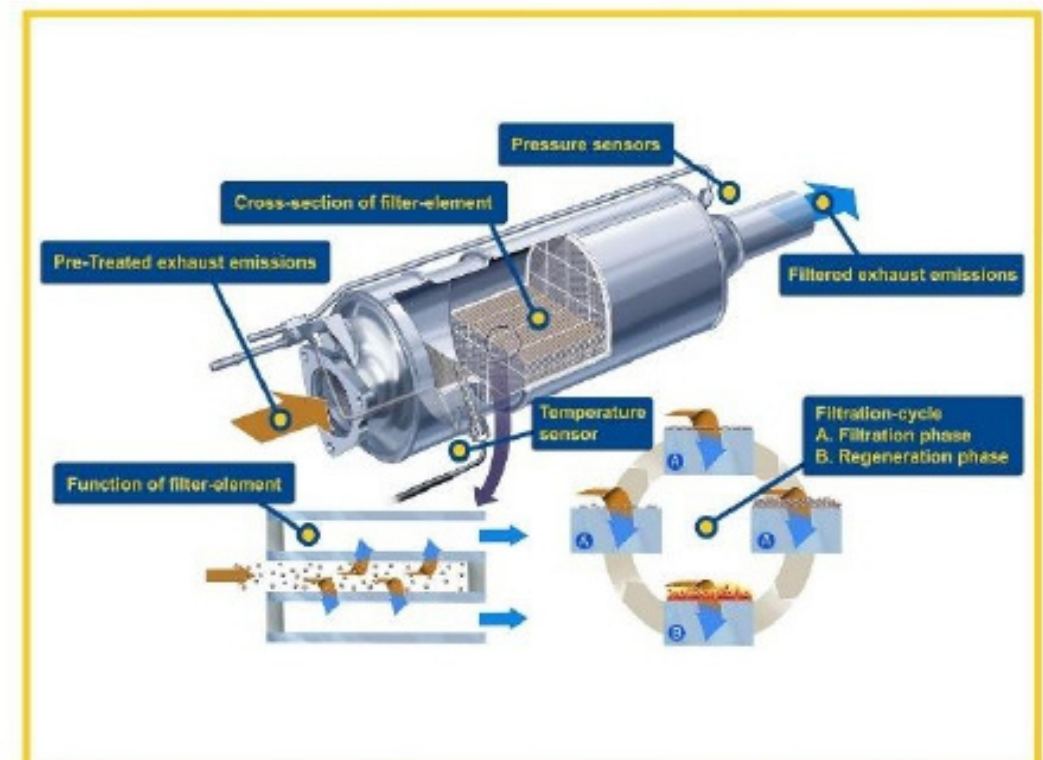
Advances in engine and vehicle technology continuously reduce the toxicity of the exhausts that come out of the engine. Therefore, technologies to detoxify the discharge are an essential part of emissions control.

Secondary air injection

One of the first exhaust emission control systems developed is the injection of secondary air. Air injection is now used to support the catalyst in the oxidation reaction and in reducing emissions when an engine is started cold. After a cold start, an engine needs a richer air-fuel mixture than required at operating temperature and the catalytic converter does not operate efficiently until it has reached its operating temperature. The air injected upstream of the converter supports combustion in the exhaust pipe, which accelerates the heating of the catalyst and reduces the amount of unburnt hydrocarbon emitted by the exhaust pipe.

Exhaust gas recirculation

In the United States and Canada, many more or less recent engines have a system that recirculates a limited amount of exhaust fumes in the intake tract in particular operating conditions. Already burnt gases do not burn or promote combustion, therefore they dilute the charge of air / fuel to reduce the peak temperatures of the combustion chamber. This, in turn, reduces the formation of nitrogen oxides (NO_x).



Catalytic converter

The catalytic converter is a device positioned in the exhaust pipe, which converts hydrocarbons (C_nH_m), carbon monoxide (CO), nitrogen oxides (NO_x) and sulfur oxides (SO_x) into less harmful gases using a combination of platinum (Pt), palladium (Pd) and rhodium (Rh) as elements that facilitate catalysis and trap particulates thanks to the particulate filter (FAP Filtre à Particules).

There are two types of catalytic converter, a two-way converter and a three-way converter. Two-way converters were common until the 1980s, when more efficient three-way converters replaced them on most automotive engines.

Lesson Plan N 4

Teacher: Nataša Primožič,

Subject: Mathematics

Topic: Pyramids

School: SEPŠ Koper, Slovenia

Grade : 3rd year (Age: 17)

Time: 45minutes:

OBJECTIVES:

- To reinforce and deepen the understanding of the basic concepts of pyramids (basic terminologies and definitions).
- To learn the basic terminology of pyramids in English.
- To make their own definitions.
- To write down formulas of volume and surface area of pyramid.
- To check out their spatial performance

PRIOR

KNOWLEDGE:

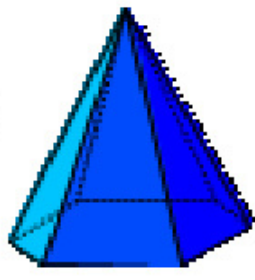
Students know everything about prism.

1.

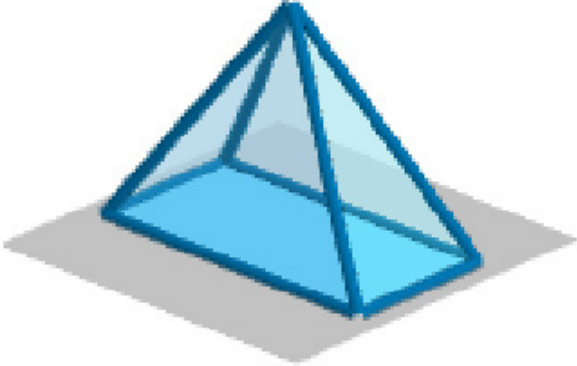
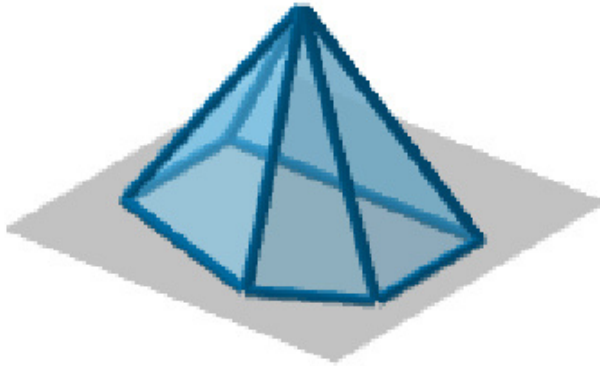
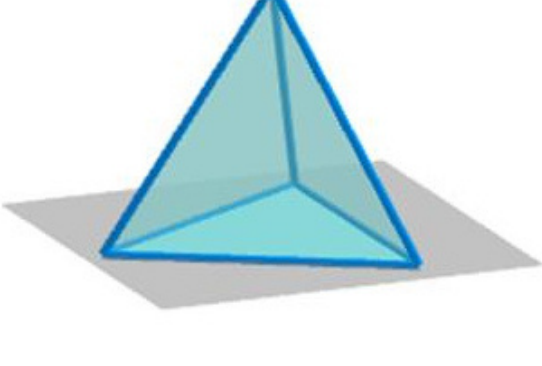
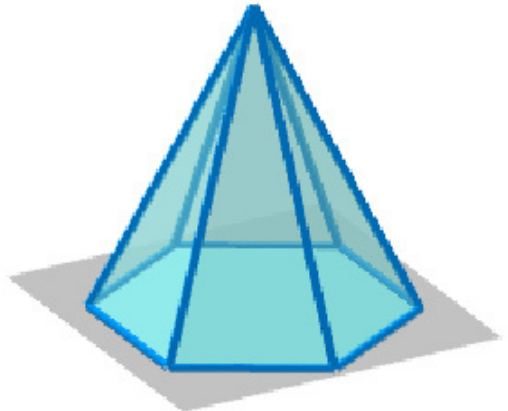
Warm-up: The students are shown the picture of 8 different pyramids. Each student chooses one picture. They are encouraged to ask mathematics related questions about the chosen picture. (min)



2. The students are given worksheet 1 (enclosed). They have 10 minutes to do the task. After that they compare their answers with the correct results.
3. The students are given worksheet 2 (enclosed). They have 15 minutes to do the task. After that they are given the results - the right definitions to compare with their own.
4. The students are given worksheet 3 (enclosed). They have 10 minutes to complete the task. They get a model of pyramid so they can try and solve the task more easily. (The remaining 5 minutes are spent: students checking and comparing their answers, explaining additional questions, etc.)

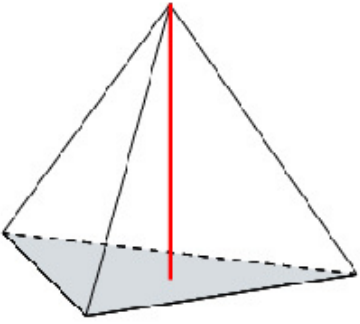
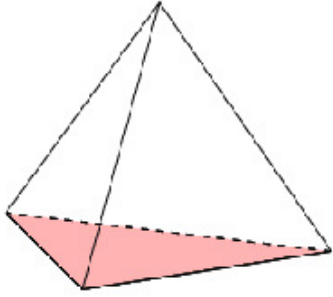
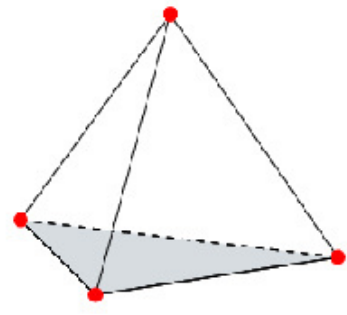
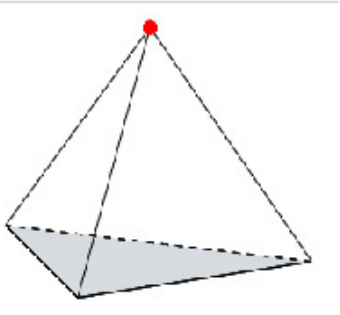
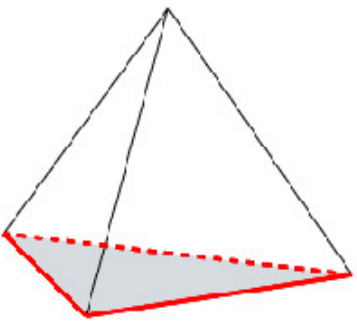
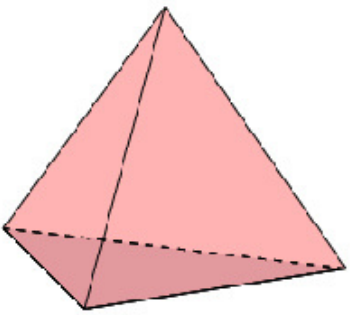
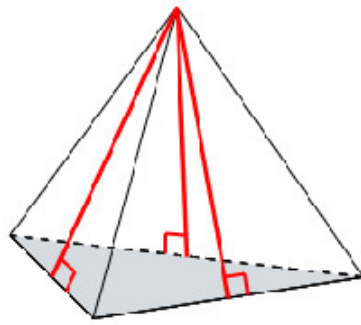
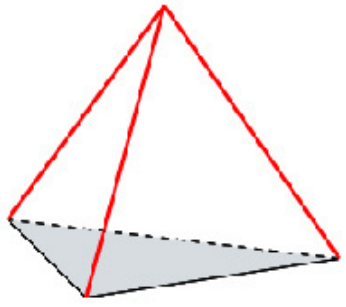


How many base edges does each pyramid have?

| | | | |
|---|--|---|--|
|  |  |  |  |
|---|--|---|--|

What is the mathematical term for the object colored red? Write it down!

APEX, VERTEX, HEIGHT, SLANT HEIGHT, BASE, LATERAL SURFACES, BASE EDGES, LATERAL EDGES

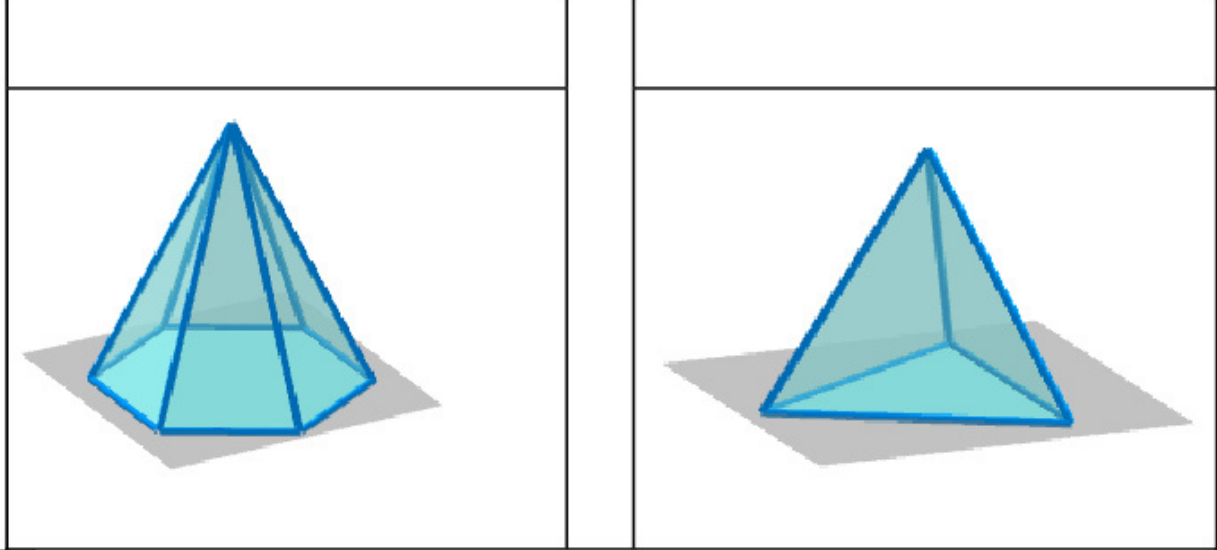
| | | | |
|---|---|---|---|
|  |  |  |  |
|  |  |  |  |

COMPLETE the following table.

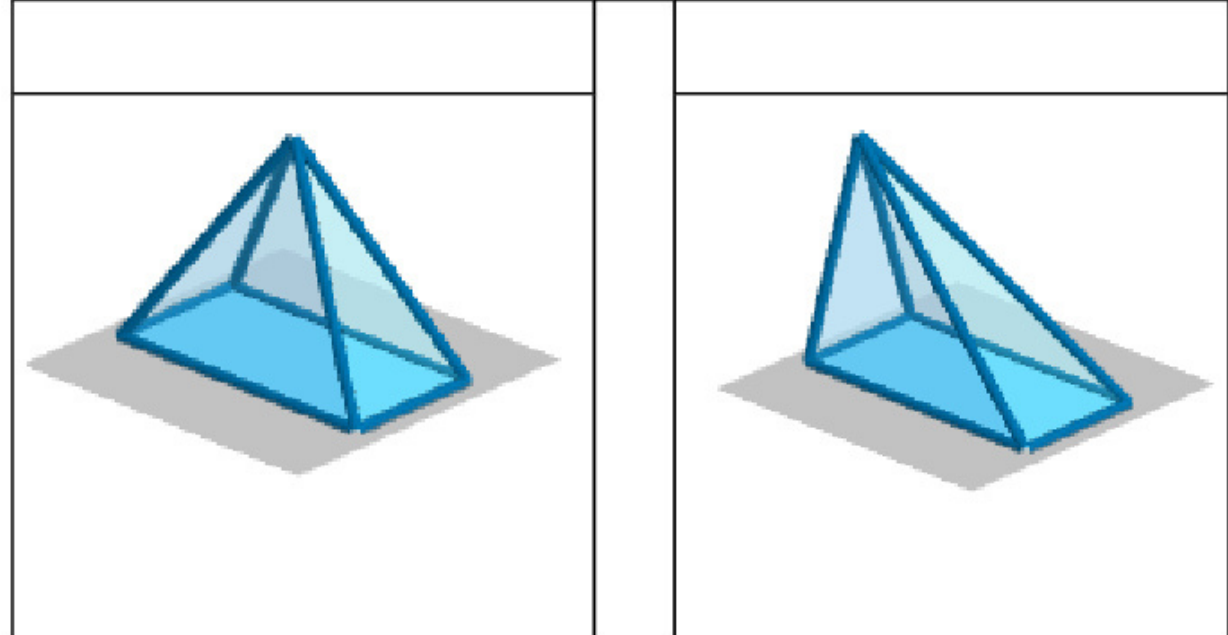
| Number of: | Vertex | Base edges | Lateral edges | Edges | Surfaces | Lateral surfaces |
|------------|--------|------------|---------------|-------|----------|------------------|
| 3-gonal | | | | | | |
| 4-gonal | | | | | | |
| - gonal | | | | 12 | | |
| - gonal | | | | | 23 | |
| n-gonal | | | | | | |

TYPES OF PYRAMIDS

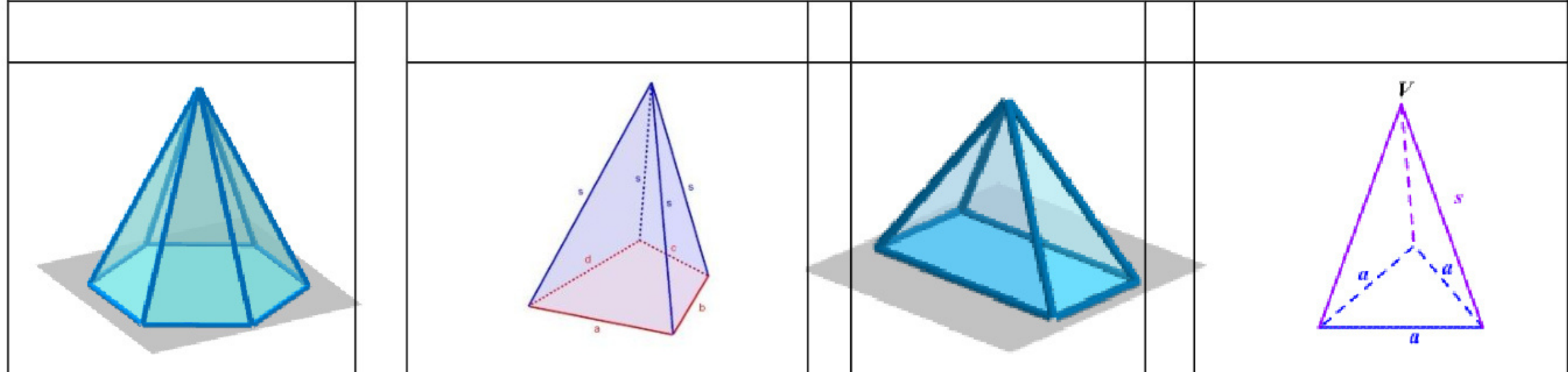
WHICH IS EQUILATERAL AND WHICH IS NOT? WRITE YES OR NO.



WHICH ONE IS A RIGHT PYRAMID AND WHICH IS NOT? WRITE YES OR NO.



WHICH IS REGULAR AND WHICH IS NOT? WRITE YES OR NO.



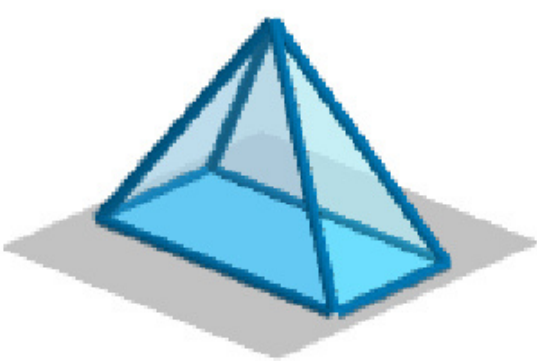
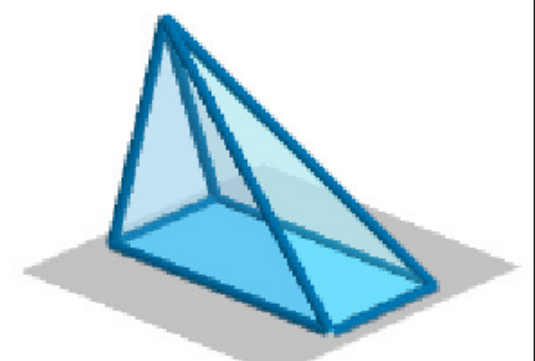
WRITE YOUR OWN DEFINITIONS

| | |
|------------------------|--|
| A PYRAMID IS | |
| n – GONAL PYRAMID IS | |
| A RIGHT PYRAMID IS | |
| EQUILATERAL PYRAMID IS | |

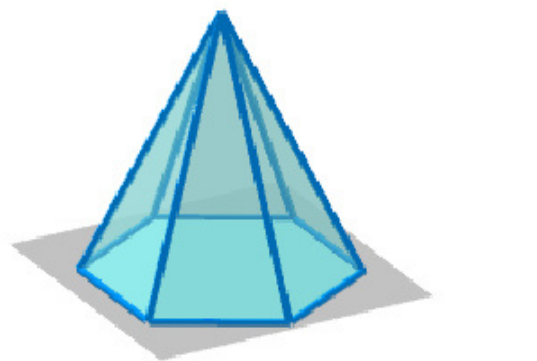
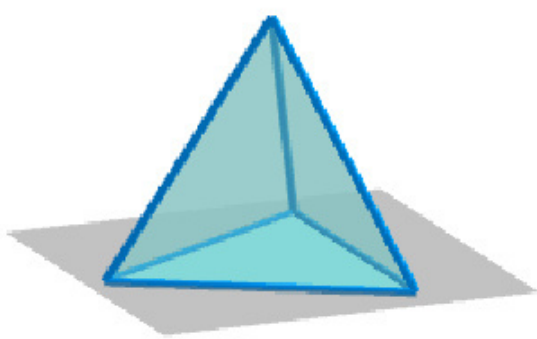
WORKSHEET 2

TYPES OF PYRAMIDS

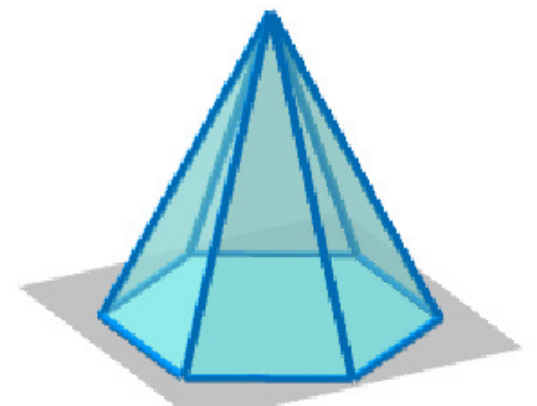
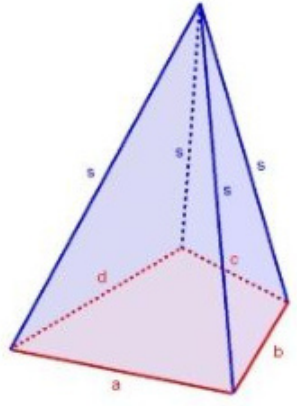
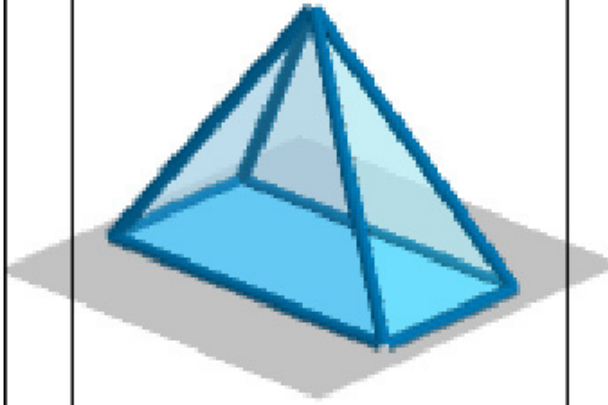
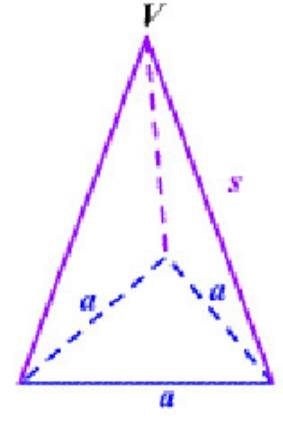
WHICH ONE IS A RIGHT PYRAMID AND WHICH IS NOT? WRITE YES OR NO.

| | |
|--|---|
|  |  |
|--|---|

WHICH IS EQUILATERAL AND WHICH IS NOT? WRITE YES OR NO.

| | |
|---|---|
|  |  |
|---|---|

WHICH IS REGULAR AND WHICH IS NOT? WRITE YES OR NO.

| | | | |
|--|---|---|---|
|  |  |  |  |
|--|---|---|---|

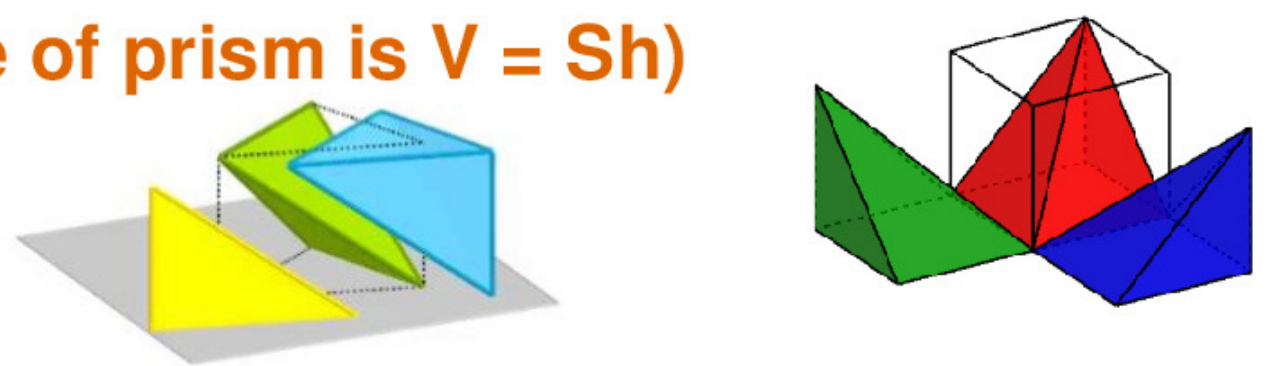
WRITE YOUR OWN DEFINITIONS

| | |
|------------------------|--|
| A PYRAMID IS | |
| n – GONAL PYRAMID IS | |
| A RIGHT PYRAMID IS | |
| EQUILATERAL PYRAMID IS | |
| A REGULAR PYRAMID IS | |

VOLUME OF A PYRAMID

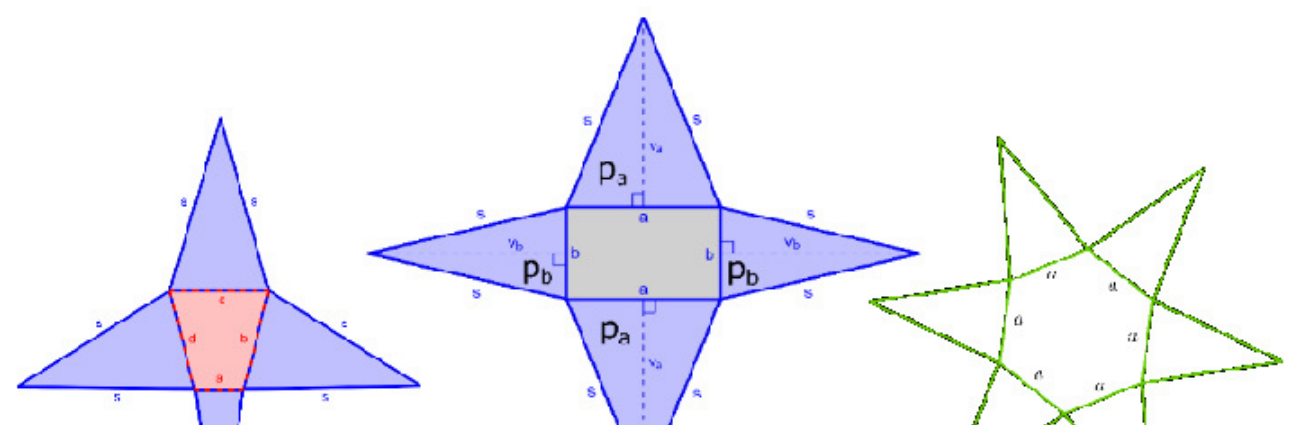
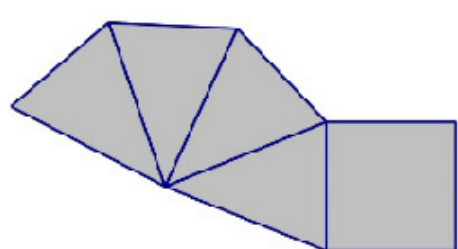
(volume of prism is $V = Sh$)

$V =$

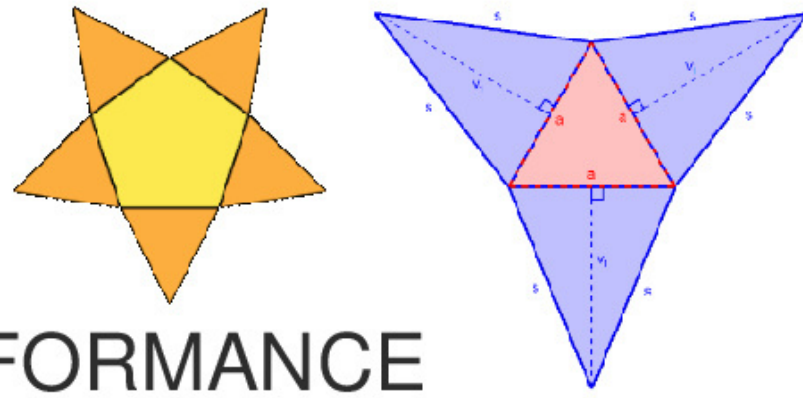


SURFACE AREA OF A PYRAMID

$S =$



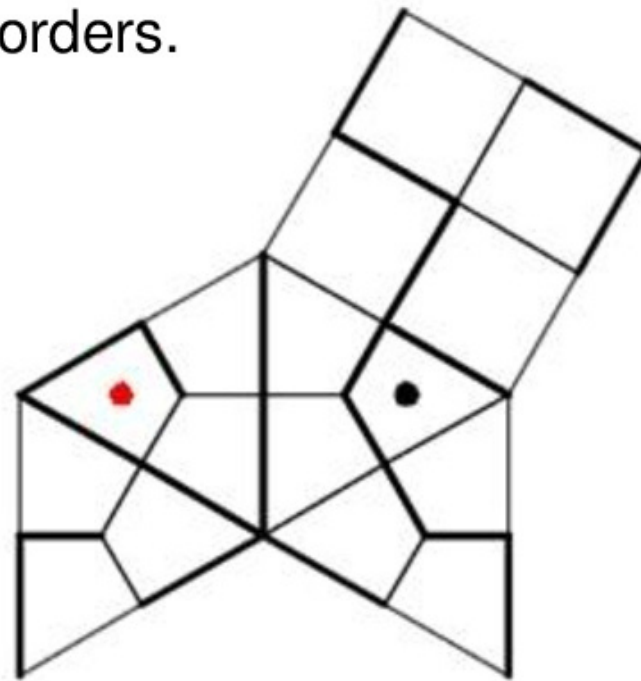
ORKSHEET 3



PATIAL PERFORMANCE

Connect the two points lying on the network of the four-sided pyramid.

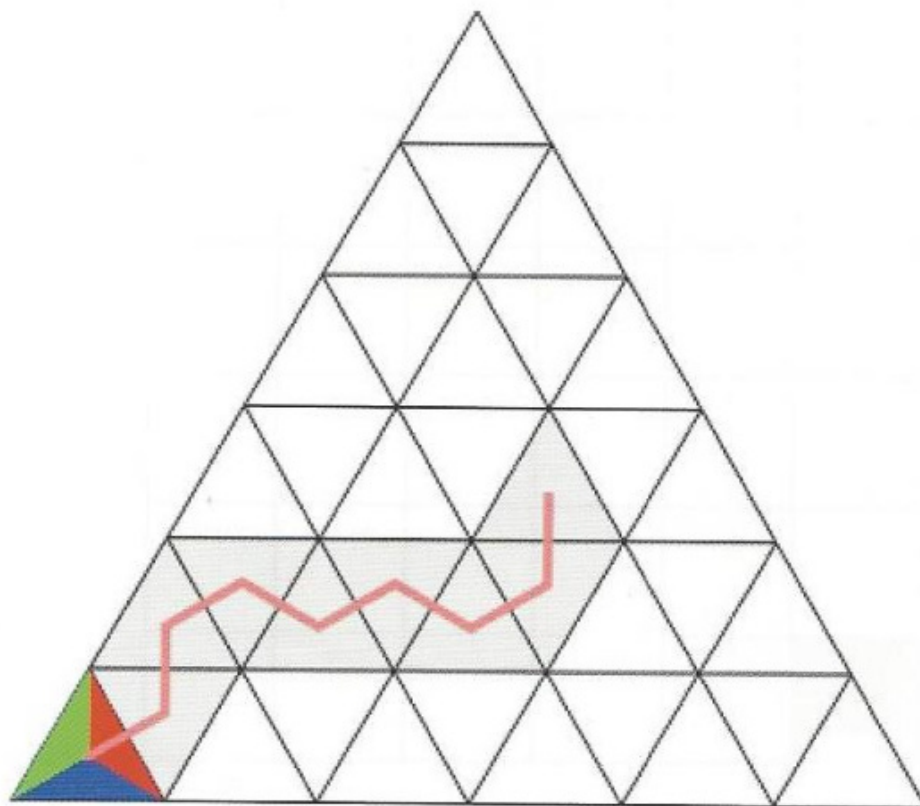
You must not cross any black borders.



The bottom of the colored tetrahedron is yellow. Roll the tetrahedron on the signed road.

The triangle is colored with the color in the bottom of the tetrahedron.

What is the color of the last triangle of the road?



RESULTS

| Number of: | Vertex | Base edges | Lateral edges | Edges | Surfaces | Lateral surfaces |
|------------|--------|------------|---------------|-------|----------|------------------|
| 3-sided | 4 | 3 | 3 | 6 | 4 | 3 |
| 4-sided | 5 | 4 | 4 | 8 | 5 | 4 |
| 6-sided | 7 | 6 | 6 | 12 | 7 | 6 |
| 22-sided | 23 | 22 | 22 | 44 | 23 | 22 |
| n-sided | n+1 | n | n | 2n | n+1 | n |

| | |
|----------------------|---|
| A PYRAMID IS | A polyhedron with one face (base) being a polygon and all the other faces being triangles, meeting at a common polygon vertex (apex). |
| n – SIDED PYRAMID | is a pyramid whose base is an n- sided polygon. |
| A RIGHT PYRAMID | has its apex directly above the centroid of its base. |
| EQUILATERAL PYRAMID | has all edges the same length. |
| A REGULAR PYRAMID IS | a right pyramid whose base is a regular polygon. |

Volume $V = \frac{1}{3} S_B h$

Surface area $S = S_B + \left(\frac{1}{2} p h_a \right)$

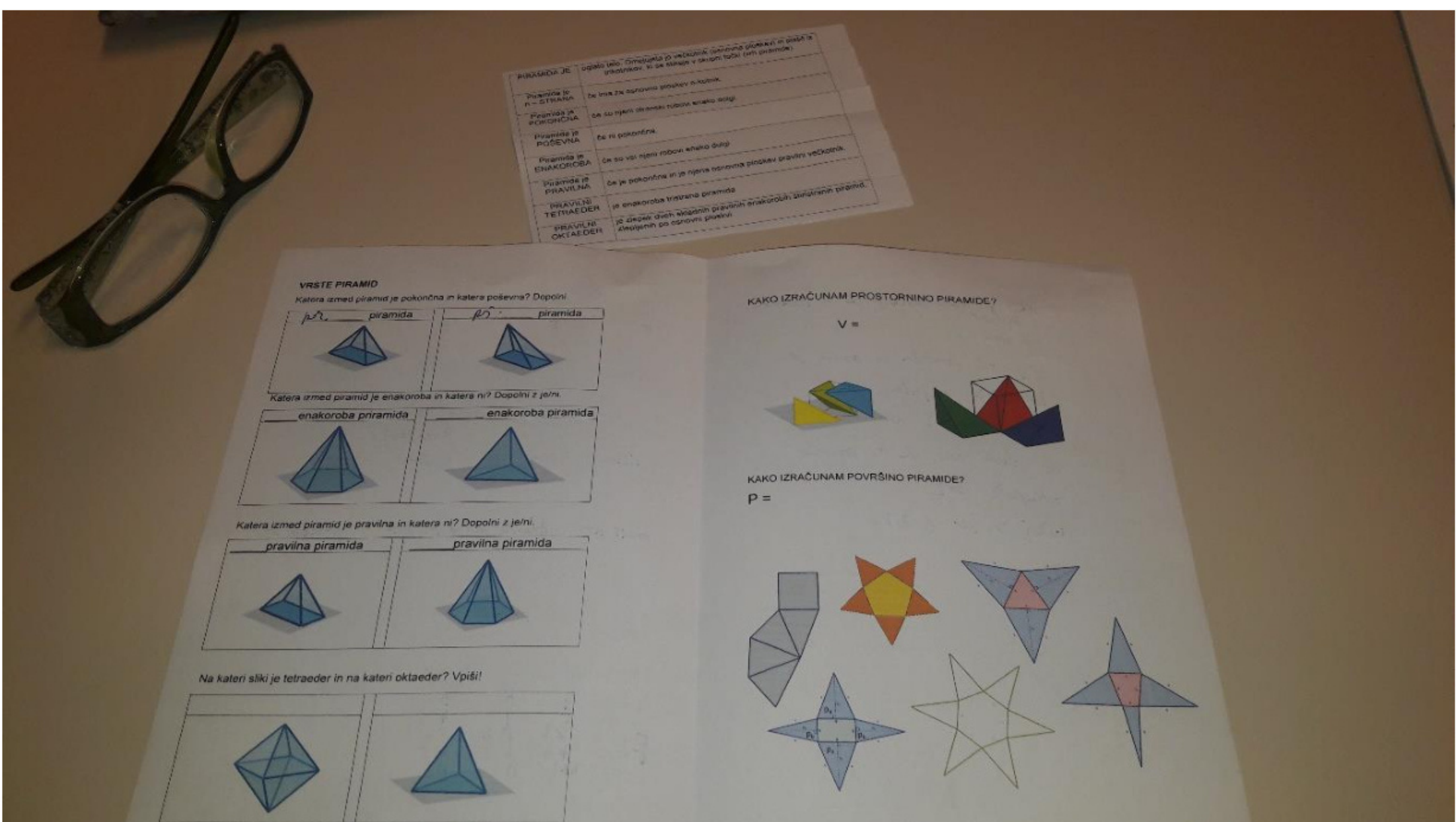
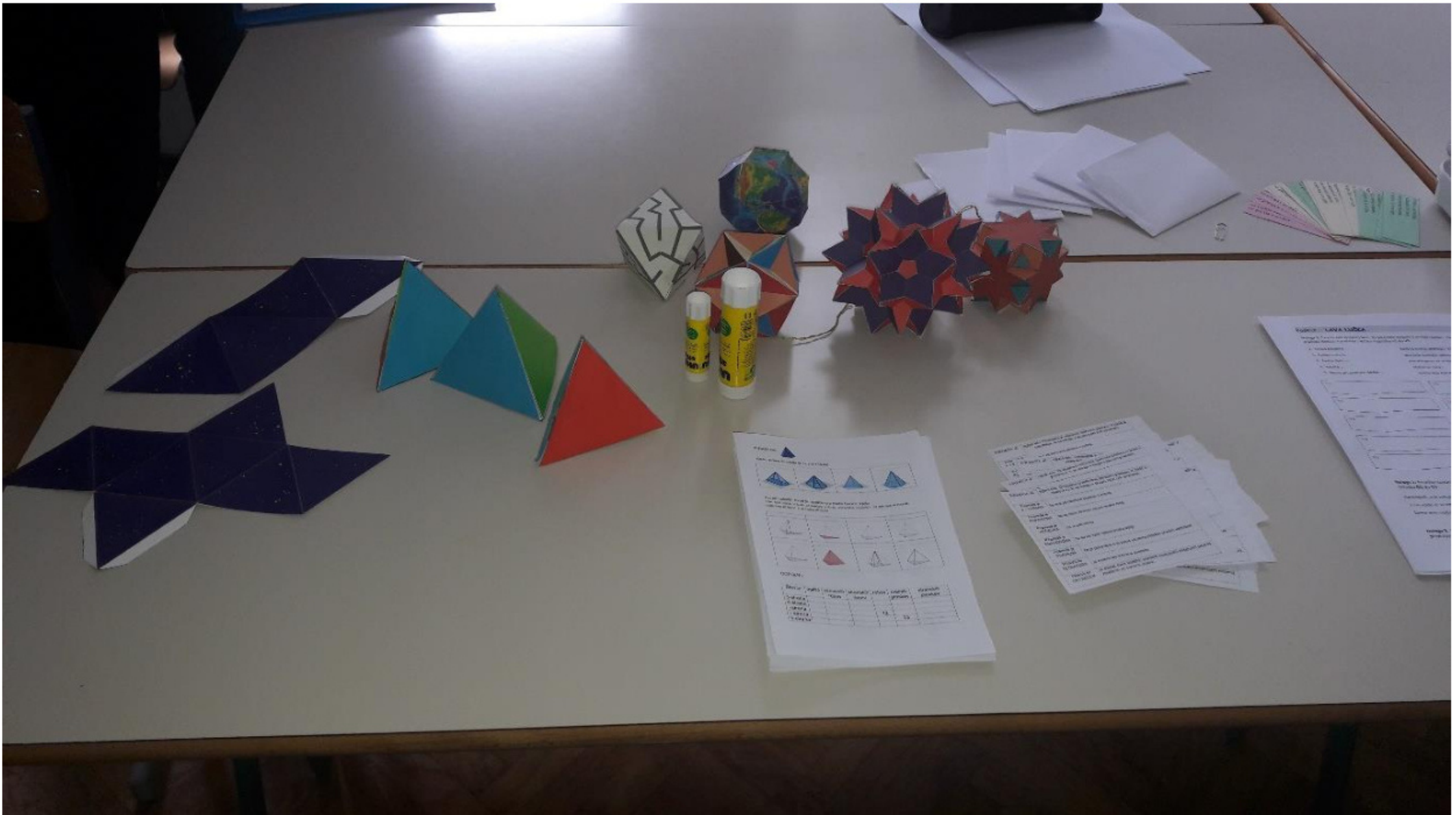
The [lateral surface area](#) of a pyramid is where h_a is the [slant height](#) and p is the base [perimeter](#).

The base surface area

OBSERVATIONS:

Students have problems with writing their own definitions in English.
They do not have problems with understanding and resolving other tasks.

PHOTOS



Lesson Plan N 5

Teacher Dimitrova Galya Ivanova

Subject: History

School: СУ "Николай Катранов", Свищов

Topic: Food and Imperialism: the impact of global food

Level: A2/B1

Time: 17h

Teaching aims/learning outcomes:

For each food Ss should know what benefits and side effects are;

Ss should connect the colonial history to food;

Ss should be able to define the food main use in modern cuisine using a specific language;

Ss should be able to locate the origin areas of each global food analysed;

Ss should be aware of the consequences of the use of global foods in modern cuisine.

Prerequisites:

Food vocabulary, and its use in Italian and Sardinian cuisine in native language (Italian).

Language prerequisites: use of simple present and past simple, use of infinitive and imperative, knowledge of basic vocabulary for writing a simple traditional recipe (i. e. oil, pasta, sauce, cheese)

Content aims

Knowledge of history and importance of some foods and plants in modern cuisine: tea, coffee, potato, sugar cane, tomato.

Communication aims (content-obligatory language, content-compatible language)

- Strengthen the use and knowledge of COL vocabulary; connected to several subjects: Food science/nutrition, English, history through English language;
- Help disabled pupil to remember food words in English;
- Help disabled pupil to store food vocabulary in long-term memory through cooperative learning;
- Talk about food in class;
- Explain choices and opinions in a simple way, as good and fluent as possible;

COL: tea, coffee, potato, sugar cane, tomato, polyphenols, antioxidants, heart disease, starch, crop, cereal, protein, potassium, water, carbohydrate, crisp, stew, soup, flour, fat, fibre, New Guinea, America, Asia, plantation, tree, colonisation, obesity, diabetes, cancer, blood pressure, figures.

CCL: plantation, China, Japan, India, Russia, tree, food, drink, Britain, tea bags, bush, Ethiopia, edible, raw, dried, consumption, disease, stimulant, maize, corn, conquistador, iron, magnesium, dominion, nutrition,

Cognition aims

- Formulate hypothesis about correct use of foods in a healthy diet;
- Compare benefits and side effects of foods;
- Evaluate the transformation of tradition in Italian and Sardinian cuisine;

Culture aims

- Be aware that the tradition is an ongoing process renewable year by year continents and have planted and introduced in Europe during the centuries. Then they have become “traditional”;
- Elicit curiosity about the food and its origin;

Procedure

Intro/lead-in: brainstorming, checking Ss

previous knowledge:

T. shows up some pictures of common foods that comes from Africa, Asia, Europe and America, and frequently used in Italian cuisine.

Pupils have to say their names, and Teacher writes it on the Interactive Board. Each outcome and words given by students should be got into a pdf file, and must be stored as a digital file displayable with the LIM.

All materials collected by the teacher will be given to the students at the end of the lesson.

.Warm up: expanding knowledge and specific language

How many foods coming from other continents do you know? Please have you say

Please take a blank sheet, and fold (divide) it in four parts. Part 1 is Africa, part 2 is America, part 3 is Asia, part 4 is Europe. Where does food come from? Select and write food and plants that comes from Africa, Asia and America.

Feedback: Check your answer

Students watch a video that explains where foods come from. They have to check and correct mistakes, if they do it. Having opted the personal choices for each imagine, watched the video and prepared previously a world map poster, students insert video food imagine onto correct continent.

Video :Origins of Food:

<https://www.youtube.com/watch?m=MVVvF7Po-I>

Activities and tasks (stages): cognitive skills, R/S/W/L and communicative skills, practicing subject specific language (for the 4 Cs)

Activity 1: Teacher selects six foods, elected as really representative of the importance of "global food" both in Italian national and Sardinian regional cuisine.

For each food analysed by the group, they have to analyse the text given by the teacher.

.

|

.Food 1: tea

Food 2: coffee

Food 3: tomato

Food 4: potato

Food 5: sugar cane

Activity 2: Students must turn over the sheet (text given). Teacher gives each group 3 questions they have to do to other groups. Teacher asks pupils to write down answer to selected questions done by other students. At the end of the activity a group will be declared winner of the context, having done more correct answers than other groups .The winning group will be awarded by the teacher with a prize..

Activity 3: Activity 3: Students must write, using a format, and describe to the class six

recipes, selected from the panel of whole tradition of Sardinian or Italian cuisine. They can use images downloaded from the WEB and a layout given by the teacher. Then the SS have to address at the class their outcomes.

Interactional patterns for each task plenary

individual, pair, group work: Workgroup, cooperative learning, peer tutoring.

News/revisited vocabulary, linguistic

structures, functions: Simple present, simple past

.New/revisited vocabulary: evergreen, commercial, café, raw, superfood, bananas, nuts, broccoli, avocado, overseas dominions, drink, to mature, to ripen, to reach, to increase, to prevent,

Resources/materials: visuals, worksheets, ICT

BYOD: smartphone, pc provided by school (or students'one) usb pen, interactive board

Wrap-up activities:consolidation (ex. game?)

List of words used in the past activities:give a brief definition of them. If students of one group have problems can ask other group's students help.

Follow up project proposal: Video " The sugar truth"

<https://www.youtube.com/watch?v=EFInlGx0B5U>

Students must listen to a video carefully looking at the subtitles, if necessary. Teacher gives the pupils a crossword containing a few definitions connected to key words about the content of the video..

Assessment: Selfassessment through “can do statements”:

- I can understand a text in English about food.
- I can explain my ideas in English
- I can recognise pictures and food names in English
- I can talk about food in English
- I can understand where global foods come from
- I can talk to my classmates in English

Lesson Plan N 6

Teacher Annamària AntalnéMizsei

Subject: Science and Technology

School: Nagyboldogasszony Kéttannyelvű

Katolikus Általános Iskola és Gimnázium

Topic: Environmental protection

Level: B1/B2 (age 15-18)

Time: h 6

- Objectives: Focus the student's attention on „garbage” as a global problem, what it can really do to help our environment
- Language: Vocabulary related to the content objectives
- Technology: whiteboard, song and video and game online

Assessment Tools: Worksheets

By the end of the lesson learners will be able to:
understand important causes of environmental problems and some solutions

- extend their understanding of lexis connected to climate change and environmental
- improve understanding of pronunciation information given in a dictionary
- take notes and retell information to others

I. Warm-up – Brainstorming
(frontal work)

Time: 6'

Talking about global problems. Teacher ask questions and students answer.

Questions/Possible answers:

1. What are the most important environmental problems nowadays?

Greenhouse effect, climate change, global warming. Every year we produce more and more rubbish. A lot of people on the planet create waste.

2. What are some forms of environmental pollution?

air pollution, water pollution and soil pollution

3. What are the examples of rubbish we produce?

Bottle, glass jar, cans, paper, boxes...

3 What do you do to protect your environment?

When I go shopping, I always take some shopping bags with me. I take bottles, paper and plastic to selective rubbish bins

Vocabulary exercises

Time: 5' (individual and

frontal work)

Teacher tells the definition and students choose and write the correct word on your exercise book. The definitions are on the whiteboard

•PAPER -PLASTIC - REUSE - RUBBISH - REDUCE-RECYCLE

Checking

- RECYCLE **T**o make something old into something **new**
- PAPER Made from trees, we use and write on this a lot
- REDUCE To make smaller or less of •PLASTIC Most bottles and food packaging are made from this
- REUSE To use something again, rather than buy a new one
- RUBBISH Waste, trash, items we do not need or I.

I. Communication exercise Time: 6' (frontal and pair work)

a) Use the words above. What can we do to help our planet and to help ourselves to a better life?

- We can recycle our rubbish
- Reduce our waste
- Reuse items wherever possible

In pairs students discuss their habits of selecting rubbish in their household. They take notes and retell information to the others

I. Listening – Culture
work)

Time: 9' (frontal and pair

a) YouTube video

• Let's learn some culture about recycling. There is a town in Japan that produces no trash.

• [https://www.youtube.com/watch?](https://www.youtube.com/watch?v=eym10GGidQU&t=202s)

[v=eym10GGidQU&t=202s](https://www.youtube.com/watch?v=eym10GGidQU&t=202s)

Pre-listening exercises:

Discussion – frontal work

-How could it be possible to live without producing trash?

After listening: Pair work

Students discuss their view about the YouTube video

a) Song- gap filling

Time: 6' (frontal work)

https://www.youtube.com/results?search_query=jack+johnson+the+3+r%27s

Jack Johnson Song: „The 3 R's” Listen carefully then choose the right answer.

| A | B | C |
|--|--|--|
| <p>1).....(one/two/three) it's a magic number Yes it is, it's a magic 2)..... (under/number/thunder) Because two times three is 3)..... (fix/six/mix) And three times six is eighteen And the eighteenth letter in the alphabet is 4)..... (R/M/A) We've got three R's we're going to talk about today We've got to learn to Reduce, Reuse, Recycle Reduce, Reuse Recycle</p> | <p>Reduce, Reuse, 5) (recycle/bicycle), Reduce, Reuse, Recycle If you're going to the market to buy some 6).....(juice/shoes/choose) You've got to bring your own bags and you learn to reduce your waste, we've got to learn to reduce And if your 7)..... (mother/brother/daughter) or your sister's got some cool clothes You could try them on before you buy some more of those Reuse, we've got to learn to reuse</p> | <p>And if the first out And if you've g trash Don't throw it we've got to le We've got to le 8)....., Re Reduce, Reuse Reduce, 9)..... Reduce, Reuse Because three Yes it is, it's a r</p> |

b) After listening to the song the whole class sing together

I. Worksheet -writing exercises

Time: 7'

(Individual work with frontal checking)

B) Song- gap filling

Time: 6' (frontal work)

[https://www.youtube.com/results?](https://www.youtube.com/results?search_query=jack+johnson+the+3+r%27s)

[search_query=jack+johnson+the+3+r%27s](https://www.youtube.com/results?search_query=jack+johnson+the+3+r%27s)

Jack Johnson Song: „The 3 R's”

Listen carefully then choose the right answer.

Match the word with the correct definition:

Reuse, recycle, reduce

| Word | Definition |
|---------|---|
| 1/..... | We produce a new object from an old one. |
| 2/..... | When we buy product with little packaging, we will have less trash. |
| 3/..... | Using our old things instead of buying new products, like clothes, books, or furniture. |

- Task 3: Use the information below to complete the table.
- By reusing old things, we don't need energy. No energy needed so no pollution.
- When we recycle just one aluminium can, we save enough energy to run a TV for 3 hours.
- We can help poor people by giving unwanted books, clothes, and furniture to charity.
- By recycling a ton of paper, we save 17 fully grown trees.

Buying products with packaging that can be reused will reduce the amount of trash we throw away.

| Solutions | Advantages |
|-----------|------------|
| Reducing | |
| Reusing | |
| Recycling | |

Checking

| Solutions | Advantages |
|-----------|---|
| Reducing | Buying products with packaging that can be reused will reduce the amount of waste. |
| Reusing | By reusing old things, we don't need energy. No energy needed so no pollution. We can help poor people by giving unwanted books, clothes, and furniture. |
| Recycling | By recycling a ton of paper, we save 17 fully grown trees. When we recycle just one aluminium can, we save enough energy to power a light bulb for one hour. |

I. Game *Time: 4'*

(Students use their smart phone to play the game)

Kahoot game about water pollution

<https://create.kahoot.it/details/a9781890-8e98-428b-aeec-b4b97bc8b59f>

II. Evaluation and giving homework *Time: 2'*

The following links give you the possibility to watch the videos of the recorded lessons:

Lesson 1: <https://www.youtube.com/watch?v=WDggppqgaNA>

Lesson 3: <https://vimeo.com/397002709>

Lesson 4: <https://www.youtube.com/watch?v=ogFAK4P0qMc>

Lesson 6: https://www.youtube.com/watch?v=WrKifuuvt9Y&list=UUUpnl_c7EDDg_Wt6vD0wOXfw&index=3

Chapter 4

CLIL Resources



Resources

<http://www.macmillaninspiration.com/new/resources/web-projects>

<https://www.blikk.it/bildung/unterricht/clil/clil-activities>

https://elt.oup.com/elt/students/networkitaly/clil/Network_2_CLIL_Lessons -

Oxford University Press elt.oup.com > students > clil > Network_2_CLIL_Lessons

www.onestopenenglish.com > clil-le

CLIL Activities :: [blikk](http://www.blikk.it) www.blikk.it > bildung > unterricht

www.onestopenenglish.com

www.blikk.it

Khanacademy.org





Thanks to all the Partners: Poland (project coordinator), Bulgaria, Hungary, Italy, Romania and Slovenia who made possible this CLIL guide

Project co-funded by the Erasmus+ Programme of the European Union



Erasmus+