Pythagoras theorem

Class: Middle school/high school

Level: Upper-intermediate.

Time : 45 minutes

Aims:

- To learn about Pythagoras and his life
- To learn about Pythagoras theorem
- To learn vocabulary connected with Mathematics and trygonometry
- To look for specific information on the internet
- To read for specific information
- To transfer the information.
- To use web pages

CLIL: Mathematics, History

Materials : included photocopies, access to the internet and personal computer, speakers.

STAGE	AIMS	PROCEDURE	CLASSROOM LANGUAGE	TIME	MATERIALS
Introduction	To start the lesson	Check the register /check homework		1 min/ 6 min	
Warm –up activity	To provide students with introduction to the topic	Class discussion/brainstorming	Ask the students if they know any famous mathematicians, philosophers and theories	3 min	
The main part of the lesson	Reading comprehension- gap filling	Ask the students to read the text and underline any difficult vocabulary. Ask the students to retell the story of Pythagoras. Ask the students to complete the gaps with the words from the box. Check the answers.	Before we learn about Pythagoras Theorem, let's look at the life of a famous philosopher and mathematician. Read the text and complete the gaps.	7 min	Worksheet 1 Internet
	To learn and understand Pythagoras theorem.	Ask the students to work in pairs, allow time to do the task. Ask one volunteer to go to the board and do the task, ask the class to check their answers.	Draw a right-angled triangle and name the right-angled sides *a* and *b*, the third side *c*. Where in your drawing is: *adjacent side, opposite side, angle, hypotenuse, length*.	7 min	
	To watch a video about Pythagoras theorem	Ask the students to watch an educational video and then complete the theorem. Make sure all the	Go to http://www.bbc.co.uk/bitesize/ks3/maths/shape_space/pythagoras_theorem/activity watch a video and later complete the theorem:	10 min	

		students understand the theorem.			
	To revise, systemize the understanding of the theorem	Give the students a few minutes to browse the websites and read up more on the theorem, answer any questions.	Use these websites to read and learn some more: http://www.mathsisfun.com/pythagoras.html http://www.ducksters.com/kidsmath/pythagorean_theorem.php http://www.historyforkids.org/learn/greeks/science/math/pythagoras.htm	7 min	
Wrap-up	To check your knowledge, to do a quiz	Ask the students to work alone, go online and do the quiz.	Time to put the theorem into practice, go to http://www.bbc.co.uk/bitesize/quiz/q32136889 and do the quiz!	7 min	

Sources:

http://www.historyforkids.org/learn/greeks/science/math/pythagoras.htm

http://www.bbc.co.uk/bitesize/ks3/maths/shape_space/pythagoras_theorem/activity

http://www.mathsisfun.com/pythagoras.html

http://www.ducksters.com/kidsmath/pythagorean_theorem.php

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