

ARCHIMEDES AND HIS PRINCIPLES

TOPIC: principle of buoyancy, science, force, immersion

LEVEL: intermediate

Time: 45 minutes

Objectives:

- to understand the concept of buoyancy and Archimedes' principle
- to learn or revise vocabulary connected with math
- to develop reading, speaking and listening comprehension skills
- to learn about creative solutions to difficult questions

Language functions:

- to exchange ideas connected with math
- to understand a written text

CLIL: Math,

MATERIALS:

For this lesson, you will need:

- Computer with Internet access

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STAGE	AIMS	PROCEDURE	MATERIALS/ RESOURCES	TIME
WARM UP	<p>make sts interested in the topic</p> <ul style="list-style-type: none"> - to develop speaking skills 	<p>PAIR WORK</p> <p>Work in pairs. Sts receive a worksheet with some famous quotes about mathematics. They take turns and say how they understand them and whether they know anything about the authors.</p>	<p>http://www.brainyquote.com/quotes/keywords/mathematics.html</p> <p>Worksheet 1</p>	10 min
MAIN PART OF THE LESSO N	<ul style="list-style-type: none"> - to search for information on the internet - to understand the concept of buoyancy 	<p>WEBQUEST</p> <p>Sts are given worksheet 2 with a number of questions. They have to refer to some websites in order to find the answers.</p> <p>http://physics.tutorvista.com/fluid-dynamics/buoyancy.html</p> <p>After completing all the information, sts will have to compare the answers.</p>	Worksheet 2	20 min
	<ul style="list-style-type: none"> - to develop listening skills - to revise vocabulary - to define what buoyant force 	<p>LISTENING</p> <p>Sts watch a short film on the youtube channel: https://www.youtube.com/watch?v=2fCVMhCOGWE.</p> <p>They have to take notes and then compare them with their partners. After that they will be asked to present to the rest of the class what a buoyant force is and what experiment was used in the video.</p>	https://www.youtube.com/watch?v=2fCVMhCOGWE	10 min
WRAP - UP/ CLOSURE	<ul style="list-style-type: none"> - to develop and revise some mathematical terminology 	<p>ONLINE QUIZ</p> <p>Sts log on to a website given by their teacher: www.surfnetkids.com/games/quiz/buoyancy</p> <p>They complete a quiz called Buoyancy Game Show that covers density, buoyancy and history. After completing the quiz they share their results with a person sitting next to them.</p>	www.surfnetkids.com/games/quiz/buoyancy	5 min