

Title of the lesson plan: Playing with multiples and divisors			
Least Common Multiple and Greatest Common Divisor			
Subject:	Maths	Course and age	2°ESO. 13-14 years old
Length of the session:	50 min	Recommended No of students:	16
Objectives:	1) Calculate (find) the Least Common Multiple (LCM) and the Greatest Common Divisor (GCD) of two or more numbers. 2) Calculate common multiples of two or more numbers based on LCM. 3) Calculate common divisors of two or more numbers based on GCD. 4) Identify pairs of coprime numbers.		
Key words:	Divisor, multiple, divisible, prime number, composite number, relatively prime.		
Key questions:	1) What is the LCM of two or more numbers? How is it calculated? 2) What is the GCD of two or more numbers? How is it calculated? 3) Is the LCM the only multiple of two or more numbers? 4) Is the GCD the only divisor of two or more numbers? 5) What is the LCM or GCD of two numbers?		
Resources:	Blackboard, pencil, pen, notebook... (traditional resources), computers, whiteboard and datashow projector.	Digital resources:	Mathighon.org , Mathigon , digital Eratosthenes Sieve , Kahoot , Edixgal
Lesson structure:			
Introduction		How to use Mathigon to decompose numbers. Using Venn diagrams to place in the intersection the common divisors of two numbers. Explanation similar to the link: Mathigon common-factors . We proceed by solving an example similar to the one in the video. As a tool, we use the digital screen, and the explanation is directed to the entire group.	
Time(minutes)	12		
Grouping			
Step 1		Classroom activity: Propose to the students that, using the previous method, they calculate the LCM and GCD. The numbers will be different for each students group. Each pair of students will try to obtain the divisors by using the Venn diagram. A good classroom practice is to propose to the students that they solve it in pairs, as it not only promotes collaborative learning but also helps consolidate concepts and is faster and more entertaining.	
Time(minutes)	10		
Grouping	Pairs		
Step 2		In this step, we explain the procedure and the Sieve of Eratosthenes, by projecting the resource's website and using the digital board once again. Simultaneously, students can follow the explanation individually on their laptops. In this way, they can follow and verify the resolution of the exercise	
Time(minutes)	5		
Grouping			
Step 3		Each pair of students will access the website of the Sieve of Eratosthenes with their laptops as a resource . They will have to look for 'tricks' to eliminate the multiples as quickly as possible. A brief reflection will be made on the utility of the Sieve, the identification of prime numbers, and the reason for searching only the multiples of 7.	
Time(minutes)	8		
Grouping	Pairs		
Conclusion		To conclude, we are going to use traditional methods. Based on what has been learned in this lesson, we present the following questions on the board. The objective is for the students to consolidate and reason the concepts worked in their notebooks. Questions: How could we calculate another common multiple based on the least common multiple? How could we calculate another common divisor based on the greatest common divisor?	
Time(minutes)	15		
Grouping			

Consolidation Activities	Kahoot with short reflection questions on the practice done. A Kahoot could be scheduled to correct or review the results in the next lesson. Examples: Kahoot1 , Kahoot2 , or Kahoot3 .
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