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Lesson plan: We are under the same star

School:

Istituto Comprensivo "Mario Bosco" – Lanciano -Italy

Subject: Mathematics

Topic: Angles

Class: 8th grade

Teacher: Math Department (Barchi Giuseppe, Borrelli Giovanna, Francione Antonella, Giallonardo Tommaso, Mancinoni Ada, Pellegrini Giuliana)

Duration:

n.2 lessons of 50 minutes

Curriculum:

in accordance with the curriculum approved by Ministry of Education

It is assumed that the students already know:

- the notion of angles
- the latitude and longitude
- the sexagesimal system
- the Cartesian plane

Lesson aim:

After the lesson the students will be able to:

- classify angles and give their names
- calculate the measures of angles
- calculate the latitude
- use a protractor
- calculate an arithmetic average
- make a sextant

The methods:

the practical method, the communicative method, the problem solving method.

Teaching aids: interactive whiteboard, computer, multimedia, tablets, smartphones, protractor, geometry set.

Coursebook:

Textbook : Vacca R., Artuso B., Bezzi C. - “Tutti matematici plus”- ATLAS ED.

Lesson procedures:

Time	Teacher’s activity	Students’activity	Remarks after lessons
<u>FIRST LESSON:</u> Organizational moment (3min)	Greets the students, checks the attendance. Ensures silence and discipline in order to carry out the activity well. Checks that all students have all the necessary materials on the desks. Prepares the necessary materials.	They're getting ready for class. They have notebooks, textbooks and a geometry kit on the desks.	
2. Capturing attention (5 min)	The teacher: -stimulates the active participation of the students present through brainstorming; -checks and updates the previously taught knowledge; -appreciates and corrects the students' answers.	Students participate and give answers.	Analysis of the answers received.
(42 min)	The teacher shows a Powerpoint presentation. SLIDE 2: We are under the same star	Students listen.	Systematic observation.
	SLIDES 3-4 “I am here and where are you? “ “I’ll send you my location Let’s use geolocation!”	Students work.	Systematic observation.

	<p>SLIDES 5-13</p> <p>I'll send you my location</p> <p>My smartphone doesn't work.</p> <p>What now?? I've got an idea!</p> <p>If the Earth were flat...</p> <p>To tell you my location...</p> <p>But the Earth isn't flat ...</p> <p>Do you know what an angle is?</p> <p>Can you draw an angle?</p> <p>Can you measure the size of an angle?</p>	Students work.	Systematic observation.
	<p>SLIDE 14</p> <p>Do you remember what latitude is? And what about longitude?</p>	Students participate and give answers.	Analysis of the answers received.
	<p>SLIDES 15-18</p> <p>Let's recap!!!</p> <p>Lanciano</p> <p>What about latitude?</p> <p>We are under the same star.</p>	Students listen.	Systematic observation.
	<p>SLIDES 19-21</p> <p>I don't know the value of latitude!</p> <p>Or...</p>	Classwork and homework.	Systematic observation. Homework check.
	<p>SLIDE 22</p> <p>I don't know the value of latitude!</p>	Classwork and homework.	Systematic observation. Homework check.

	<p>SLIDE 23</p> <p>Finally calculate an arithmetic average.</p>	Students work.	Solving exercises and problems.
<u>SECOND LESSON</u>	<p>SLIDE 24</p> <p>I don't know the value of latitude!</p>	Students work.	Solving exercises and problems.
	<p>SLIDE 25</p> <p>How do I find the Pole Star looking at the sky?</p>	Student listen and work.	Systematic observation. Homework check.
	<p>SLIDE 26</p> <p>Fun fact Sextant: why such a name?</p>	Students listen.	Systematic observation.
	<p>SLIDES 27-28</p> <p>Thanks to the students for their attention .</p>		