

Learning Unit	
Subject	Autocad 2D
Title	Drawing with Autocad
Author	Hélder Nascimento
School	FORAVE – Associação para a Educação Tecnológica do Vale do Ave
Description of the unit	<ul style="list-style-type: none"> - Recognise the importance of computer-aided drawing and its potential. - Apply the different construction methods for geometric elements using CAD systems. - Draw a classroom floor plan in Autocad.
Contents	<ul style="list-style-type: none"> - Introduction to computer-aided drawing - Basic commands (line, circle, parallel, etc.) - Basic editing commands (cut, delete, etc.) - Drawing a classroom floor plan
Learning Outcomes / Skills	<p>Students should be able to:</p> <ul style="list-style-type: none"> - Develop critical thinking and the ability to work in groups; - Know the capabilities of computer-aided drawing. - Draw a floor plan using Autocad
Target students/class	Secondary school (15 – 17 year old)
Prerequisites	<p>Students should be able to:</p> <ul style="list-style-type: none"> - Know how to use a computer in a basic way; - Have an understanding of technical drawing.
Time expected	3 hours
Interdisciplinary links	Mathematics
Methodology	Explanation of contents, solving exercises
Human Resources (internal and/or external)	Teacher of Technical Drawing and Teacher of Mathematics
Resources	Computer with Autocad software



Learning Unit	
Lesson Plan	<p><u>1st Lesson:</u></p> <p>Summary: Introduction to Computer Aided Drawing.</p> <ul style="list-style-type: none"> - Main programs of Computer Aided Drawing - Advantages of the use of thorough technical drawing programs. <p><u>2nd Lesson:</u></p> <p>Summary:</p> <p>Basic Autocad commands:</p> <ul style="list-style-type: none"> - Lines - Circles - Parallel - Delete - Cut - Copy - Paste - Save drawing <p><u>3rd Lesson:</u></p> <p>Summary: Drawing the classroom floor plan.</p> <p>With the measurements made during the mathematics lesson, students are asked to draw the classroom floor plan using Autocad.</p>
21st Century Skills	<p>Critical thinking: students should develop critical thinking by analysing, synthesising and evaluating results in the context of the problem.</p> <p>Problem-solving: students should develop the ability to solve the problems in question.</p> <p>Collaboration: students should collaborate in pairs to solve problems.</p> <p>Global knowledge: students should develop general mathematical knowledge.</p> <p>Self-directed learning: students should develop persistence, autonomy and a willingness to deal with situations involving mathematics.</p> <p>Thinking skills: students should develop the ability to analyse their work and regulate their learning.</p>
Assessment	<p>Formative assessment:</p> <ul style="list-style-type: none"> - Attendance; - Punctuality; - Behaviour; - Attention and participation in class; - Observation of the student's performance in solving the proposed exercises; - Completion of worksheets (direct observation grids).



Learning Unit	
Remarks	--



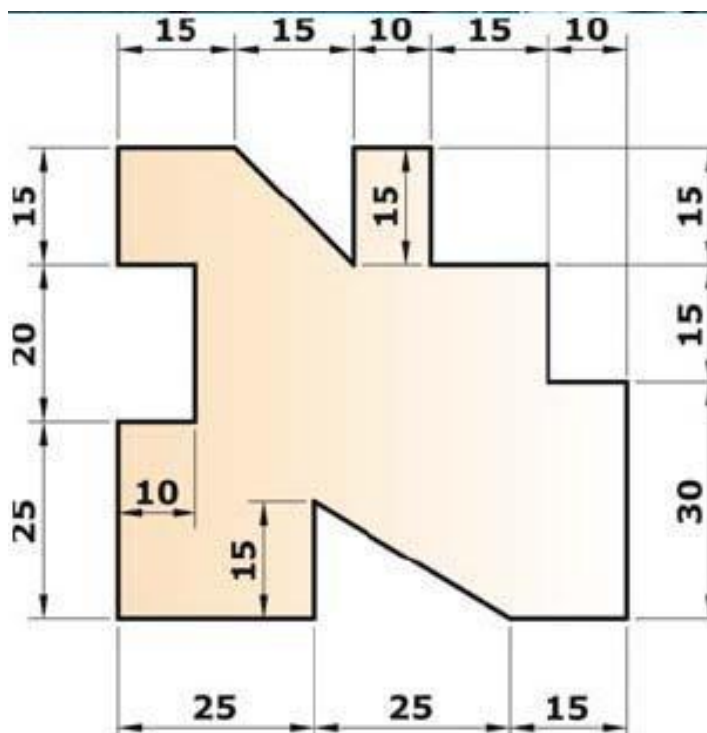
Worksheet No. 1

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1.
What is the definition of Drawing?

2.
What is the definition of Technical Drawing?

3.
With everything you have learned in the previous lessons in mind, make this drawing in Autocad.



Worksheet No. 2

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1.
With everything you have learned in the previous lessons in mind, draw your classroom using AutoCAD.

2.
Name the Autocad 2d commands you already know. Describe them.

- Line - Creates Line Segments (lines)

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