

CLIL EXCELLENCE for PRIMARY SCHOOLS

LEARNING UNIT FORMAT

Subject Area: MATHS (Geometry)

Topic: PERIMETER AND AREA

Class 5^A / 5^B

Number of lessons: 9 lessons (1 hour each)

WALT - We Are Learning To-:

During the learning unit

Children will be able to know: FORMULAS FOR PERIMETER AND AREA CALCULATION OF THE MAIN POLYGONS

Children will be able to do: TO RECOGNIZE THE MAIN POLYGONS, KNOW HOW TO COMPARE THEIR PERIMETERS AND THEIR SURFACES

Children will be able to be aware of: DIFFERENCE BETWEEN PERIMETER AND AREA AND THEIR USEFULNESS IN PRACTICAL LIFE

Each Learning unit will be divided in single lessons. The steps to follow during the learning unit are the following:

- ACTIVATION
- CORE ACTIVITIES DIVIDED IN
 - FIND OUT (INPUT PHASE)
 - SORT OUT (INPUT PROCESSING PHASE)
 - OUTPUT (SPEAKING AND WRITING PRESENTING A PERSONAL OR GROUP PRODUCT)
- Final ASSESSMENT

This CLIL path is divided into 3 Units on the area and perimeter of the main geometric shapes (square, rectangle and triangle).

Unit 1: main knowledge about polygons, quadrilaterals and triangles.

Unit 2: introduction to area and perimeter

Unit 3: comparison between area and perimeter

Our school is not a BEI school, so we can have 1 hour of CLIL per week and we have designed 3 units of 3 lessons of one hour each, for a total of 9 hours.

UNIT 1 (3 lessons of 1 hour each)

Steps	Lesson Description	CONTENT OBJECTIVES	LANGUAGE	RESOURCES	TYPE of INTERACTION*	TIMING
ACTIVATION of the learning unit Lesson 1	BRAINSTORMING FOR ACTIVATION OF PRE-KNOWLEDGE The known words are written on the blackboard then each team creates its mind map on 3 cards to be ordered.	POLYGONS VOCABULARY	What do you know about ...? Do you remember...? Put in order	Attached activity1 ;	W + G	30'
CORE ACTIVITIES Lesson 1	FIND OUT: MATH GAME	CONVEX/ CONCAVE; PARALLEL SIDES; OPPOSITE SIDES; OBTUSE/ACUTE ANGLES; RIGHT ANGLES	It's called ... How many sides / angles has it got? How many pair of parallel sides has it got?	https://www.iknowit.com/lessons/d-geometry-polygons.html	W	30'
Lesson 2	QUADRILATERALS: VIDEO MATH GAME	QUADRILATERALS	It's called ... What is its name? It can be ...	Attached activity2 ; https://www.iknowit.com/lessons/d-geometry-quadrilaterals.htm	W + G	30'
Lesson 2	Practice activities The pupils use the new knowledge to complete a diagram and to play domino game	POLYGONS, QUADRILATERALS, TRIANGLES	Put in order, complete ...	Attached: Activity3 Activity4 activity5	G	30'

FINAL ASSESSMENT Lesson 3	STUDENTS USE THE PREVIOUS KNOWLEDGE AND NEW KNOWLEDGE FOR CLASSIFICATION EXERCISES WITH THE SHAPES-GAME	POLYGONS, QUADRILATERALS, TRIANGLES	Colour, cut it, sort shapes by colour, by size, by how many edges, by how many angles, separate the pictures with the curves from those with the straight sides, sort them by two methods at the same time, combine the shapes into artwork.	Classification exercises, Attached: -Activity6 -Activity7 SHAPES-GAME, attached: -Activity8 -Activity9	I	60'
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*Type of interaction:: I- Individual;; P- Pair Group; G- Group; W- WHOLE CLASS

UNIT 2 (3 lessons of 1 hour each)

Steps	Lesson description	CONTENT OBJECTIVES	LANGUAGE OBJECTIVES	RESOURCES	TYPE of INTER ACTION*	TIMING
Warm up of the lesson: Lesson 1	"The wizard game" The class is divided into two teams, the team that correctly names the greatest number of shapes wins.	POLYGONS, QUADRILATERALS, ANGLES, TRIANGLES	What is this?	Deck of cards with geometric shapes and parts of geometric shapes learned.	W	60'
CORE ACTIVITIES: Lesson 2	FIND OUT: We present the new vocabulary	PERIMETER, AREA, SURFACE, BOUNDARY, WIDTH, LENGHT	Designation and meaning of the perimeter and of the area.	VIDEO: https://www.youtube.com/watch?v=MTSlKifo4js (only from sec. 2:55 to 4.35, from 5:52 to 7:10). VIDEO:	W	30'

				https://www.khanacademy.org/math/k-8-grades/cc-third-grade-math/3rd-geometry/modal/v/introduction-to-area-and-unit-squares .		
Lesson 2	Key sentences to repeat, to write on the board and then to copy on the notebook with a related drawings.	PERIMETER, AREA, SURFACE, BOUNDARY, WIDTH, LENGHT, SQUARE CENTIMETER	-The distance around the shape -How much space? -If the square is one centimeter per side we will call it square centimeter.	VIDEO: https://www.youtube.com/watch?v=xCdxURXMdFY . Show only from sec. 0:24 to 1:28, from 1:44 to 3:52	W + I	30'
Lesson 3	OUTPUT To calculate perimeter and area: exercises on the blackboard	PERIMETER, AREA, SURFACE, BOUNDARY, WIDTH, LENGHT, SQUARE CENTIMETER	-You can find the perimeter of a shape by adding all of the sides. - you can find the area of a rectangle by multiplying the base by the length	Flash cards (front and back) with definitions and terms of perimeter and area to guess Attached: activity11	W + I	30'
FINAL ASSESSMENT Lesson 3	Activity: -measure the perimeter of your desk and then draw this shape (scale down). - measure the area of your desk and then draw this shape (scale down). ”	MEASURE, A METER, A CENTIMETER, A SQUARE CENTIMETER	Measure the length and the width: Calculate the perimeter and the area A question: “how could you draw this shape smaller?”	Meter of paper, one for each pupil; notebook	I	30'

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UNIT 3 (3 lessons of 1 hour each)

Steps	Lesson description	CONTENT OBJECTIVES	LANGUAGE OBJECTIVES	RESOURCES	TYPE of INTERACTIO N*	TIMING
<p>Warm up of the lesson:</p> <p>Lesson 1</p>	Class challenge: Game in two teams on the board using the flash cards attached and detached from the board	POLYGONS PERIMETER, AREA, SURFACE, BOUNDARY, WIDTH, LENGHT, SQUARE CENTIMETER	Close your eyes, turn around, open your eyes... What shape is this? What's missing? Answer and match ("where is...?, point to..., show me.... etc.)	Area and Perimeter flash cards; shapes flash cards	W	60'
<p>CORE ACTIVITIES:</p> <p>Lesson 2</p>	Compare area and perimeter	SURFACE, BOUNDARY, WIDTH, LENGHT, SQUARE CENTIMETER	Comparing, surface, boundary, 2D geometry, 3D geometry	https://www.khanacademy.org/math/cc-third-grade-math/3rd-geometry/cc-third-grade-compare-area-perimeter/e/comparing-area-and-perimeter	W	30'
<p>Lesson 2</p>	We create a summary table on the blackboard; Each pupil composes his/ her own mind map of measurements on the notebook.	SHAPES IDENTIFICATION, CLASSIFICATION, MEASUREMENT	What shape is this? How do you calculate their perimeter? And their area?	Blackboard and Notebook	W + I	30'

<u>Lesson 3</u>	Activity and guess game: we draw and cut the portraits of geometrical shapes to build an id-card for each shape	SHAPES IDENTIFICATION, CLASSIFICATION, MEASUREMENT	Name, how many sides, what kind of angles, how many pair of parallel sides, how to calculate the perimeter, the area, ecc. Who I am? What is my perimeter? What is my area?	Portraits on paper plates (front/back) of geometrical shapes with their ID card	G + W	30'
FINAL ASSESSMENT <u>Lesson 3</u>	PROBLEMS	SHAPES IDENTIFICATION, CLASSIFICATION, MEASUREMENT	What is the perimeter/ area?	Attached: <u>activity10</u>	I	30'

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ASSESSMENT	<p>FORMATIVE ASSESSMENT (on going process): Attached: <u>activity1</u>, <u>activity2</u>, <u>activity3</u>, <u>activity6</u>, <u>activity7</u></p> <p>SUMMATIVE ASSESSMENT (written and oral tests / resources/): Problems (Attached <u>activity10</u>)</p>