

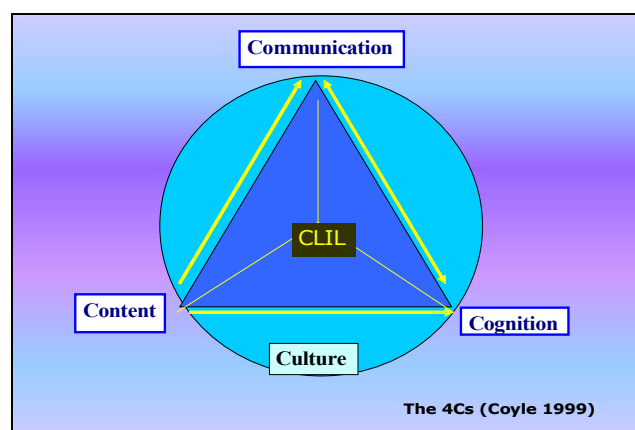
TEACHING NOTES

EXPLORING 2D SHAPES

INTRODUCTION

“Exploring 2D shapes ” is a part of the whole module of 35 hours that deals with the topic of [Shape and Space](#).

- **Level:** Year 5 of Primary Education
- **Sessions:** one hour a week
- **Teacher resources provided in this unit:**
 - A general mind map
 - Lesson plans
 - Teacher notes
 - Activity sheets
 - [Language support for pupils](#)
 - [Language support for teachers](#)
 - Power points
 - Assessment sheets
- **Methodology:** Under the CLIL approach, shapes will be taught taking into account the four Cs (Coyle) referring to Content, Cognitive skills, Culture and Communication.



- **Interaction:**

- Plenary
- Pair work
- Group work
 - Collaborative work
 - Jigsaw activities

Different types of interaction are provided in order to help the learning and teaching process. Besides, some language frames, visual support and scaffold activities are also good tools.

- **Assessment:** There are different types of assessment. The assessment activities can be done individually or in groups.

- Teacher direct observation
 - Performance assessment record
 - Anecdotal record
- Individual assessment
- Cooperative assessment
- Self-cooperative group evaluation

DAY ONE

GETTING STARTED: Children are given coloured paper. They have to make different shapes listening to teacher instructions. The teacher asks how many corners and sides has each shape and revises the names of the shapes (they already know some of them from previous years) *PLENARY /LISTENING (STUDENT'S SUPPORT 1 **SS1**)*

(How many sides has it got? How many corners? What's the name of this shape? What's this? It is a rectangle/ triangle/ circle... It has got _____ corners/ sides...)

IDENTIFYING SIDES AND CORNERS: Pupils have to trace the sides of all the shapes using plasticine, put a sticker on each corner and record the results on [sheet 1](#). *INDIVIDUAL/WRITING*

THINKING: Later on, results are checked orally and the teacher makes them think asking them some questions:

(Is there any relation between the number of sides and the number of corners? Deduce which shape will not follow the same pattern and why. How does it relate to the sides? What do the sides look like in most of the shapes? What do they look like in a circle and oval?)

They have to reach the conclusion that as the sides are round, there are no corners on a circle and oval. On the contrary, the shapes with straight sides have the same number of sides as corners. *PLENARY/SPEAKING (**SS2**)*

DAY TWO

FINDING SHAPES AROUND YOU: Pupils have to find objects in class with different shapes, and make a display with the objects and other [pictures sheet 2](#) given by the teacher. These pictures will be of different shapes: octagons, pentagons etc **PLENARY / LISTENING AND SPEAKING (SS1)**

GUESSING WAYS OF CLASSIFICATION: In groups they have to decide about the way of classifying the images on the display, and think of a pattern of classification. **TEAM WORK / SPEAKING (SS3)**

CHECKING THE ANSWERS: Pupils tell the others their ideas on classification and watch a [power point](#) presentation about polygons and classification, to see if their classification was right. They finish the display in groups according to number of sides and corners. **PLENARY / GROUP WORK / SPEAKING AND LISTENING**

APPLYING THE KNOWLEDGE: [Sheet 3](#) They read the short text and complete the characteristics of the polygons. Colour the shapes as in the pattern given. The answers will be reported **(SS4) INDIVIDUALLY / READING**

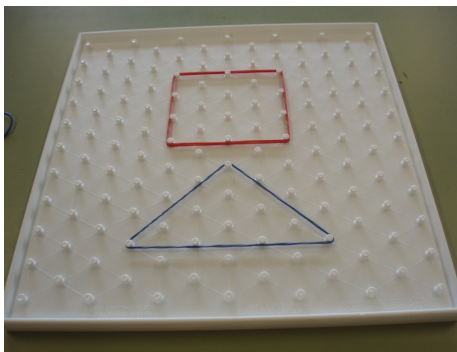
DAY THREE

CREATING SHAPES WITH GEOBORDS (applying the knowledge) Students will each get a *geoboard* to make designs of shapes using the specified instructions below. When a student makes a shape they show their group so the others get ideas. They record the designs they like the best on the [dot paper](#).
INDIVIDUALLY/ LISTENING SPEAKING

Make a shape with 2, 3,4 corners

Make a shape with two sides, three sides, four sides, six sides

Make a shape with two points in the middle of it, three points in the middle.



THINKING AND PREDICTING: Make them think how many different shapes can be made with 4 sides and 4 corners. Pupils predict and explore using the geobord and they can use the dotted paper to draw all the shapes that emerged from the group. Once they finish, they report the conclusions orally. **(SS5)** *PAIR WORK /SPEAKING*

QUADRILATERALS: [PowerPoint 2](#) *PLENARY/READING AND LISTENING*

DANCING GAME. Students dance in the gym. When the music stops the teacher gives an instruction such as: (*draw a square/ pentagon /triangle...*) and they have to apply all the knowledge learned in order to be successful:

- Think of this shape: number of sides and get yourselves into a group of the right number of people
- Think how it looks and create it, paying attention to the corners and the straight and curved sides. *COOPERATIVE WORK/ LISTENING /SPEAKING (SS6)*

DAY FOUR

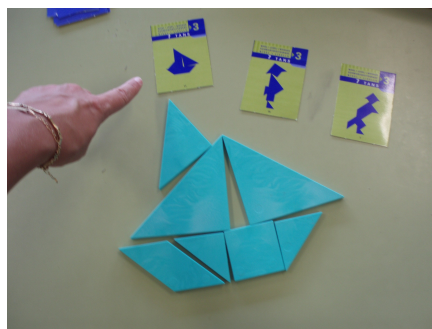
PREDICTING: Pupils are given a set of pictures made with a *tangram*, and in pairs, they have to predict which shapes have been used for each picture.
(SS7)

(I think we could use .../ we could use.../ we need... to do this picture / we might have used...)
PAIR WORK / SPEAKING

REPORTING: Once they have told the rest of the class, the teacher gives them *cards with the solutions* and they have to check, compare and report the conclusions on sheet 4

(We thought we could use 1 triangle but in fact we need 1 square) **(SS8)** PAIRWORK/ WRITING

CREATING AND PRESENTING WORK: Pupils are given two sets of tangrams to create other pictures, and make a little display to present to the class.
sheet 5 **(SS9)** INDIVIDUALLY/ WRITING/SPEAKING
(This is a, / I used)



DAY FIVE

CARDS GAME: [Power Point](#). In pairs the students shuffle the *cards* and place them in rows picture side down. The first student turns over any two cards. If the shape card matches the word form card then the student takes the two cards and continues playing. If the two cards do not match, the next turn goes to the other student. The student with the most cards at the end of the game is the winner. *PAIRWORK / READING*

SORTING SHAPES: Pupils have to complete a sorting tree about shapes by reading and answering some questions about shape properties. The shapes will be cut and glued on the correct place [Sheet 7](#). *INDIVIDUALLY OR PAIRS / READING, SPEAKING*

"THINK OF A SHAPE": One child comes up and thinks of one of the shapes. The others have to work out which shape, by asking the appropriate question and following the key. New shapes can be added (**SS9**) *PLENARY / SPEAKING AND LISTEN*

DAY 6

EXPLORING SHAPES IN MAPS: using the programme google earth zoom, children will have to investigate the types of shapes that we can see in a city seen from a bird' eye view. The activity has different steps:

- a) Predict the types of shapes that they will find in the maps (two different cities) *SPEAKING* **SS11**
- b) Find the answers in the Internet, using the programme. Observation and identification
- c) Comparing the two cities **SS12** *SPEAKING*

Once they have done the oral part, they can deal with the written part [*sheet 8*](#), reporting the answers **SS13**

DAY SEVEN

GROUP INVESTIGATION SURVEY: (using the jigsaw technique) The class is divided in groups of 4 pupils and each group has to study one of the areas of Barcelona, which are very different in terms of construction and streets. They will be "the experts" on that neighbourhood, and will look for as many different shapes as possible. Sheet 9 [a](#), [b](#), [c](#), [d](#)

Once they have studied their zone, and taken a few notes or even printed different parts of the map, new teams are going to be made with one expert on every zone, who will explain all that he/she has discovered to the new classmates. Thus, all of them will have to investigate, write notes, report, listen, and at the end do a nice display for the class. *TEAMWORK. LISTENING SPEAKING WRITING AND READING*



EIXAMPLE



HORTA



BORN



NOU BARRIS

DAY EIGHT (group assessment 1)

FINAL MIND MAP: The pupils will read a text about different types of triangles [Sheet 10](#) to complete all the information about 2-d shapes. Then they will complete a mind map ([1](#), [2](#)), to summarize and put all the information in common. INDIVIDUAL. READING, WRITING

The mind map will be marked as part of the team assessment. The second part of the assessment will be creating a Power Point presentation in groups.

DAYS NINE & TEN (GROUP ASSESSMENT 2)

POWER POINT. In groups, and taking into consideration the mind map and the concepts learnt, the pupils have to create a Power Point. They can decide what is going to be in each slide, but compulsorily, one of the slides has to deal with triangles.

The teacher, beforehand has to prepare the computers and the Power Point programme, with a document of 5 or 6 slides, and notes at the bottom, in which internet sites, resources and instructions will be provided *GROUP WORK. LISTENING, SPEAKING, READING, WRITING*

DAY ELEVEN (INDIVIDUAL ASSESSMENT)

PRESENTATIONS: each [group](#) have to show their work and all the members of the team have to explain at least one of the slides. The teacher will take notes of the individuals and the final work as a group. PLENARY. LISTENING, SPEAKING

INDIVIDUAL ASSESSMENT: pupils have to make a specific shape out of six equilateral triangles. All the knowledge gained will be involved in this activity.
[Sheet assessment](#). INDIVIDUAL