## Explore geometry



## Timeframe of activity: 45 min

Number of stadents: 1
Tags: Cards for geometrical shapes -mathematical rules
Grade Level:
K-6
App/Tech Tools: Clever Books Geomatry App, device (phone/tablet)
Additional material: Clever Books www.cleverbooks.eu/shop/

## Learning Objectives:

The student will be at the end of the activity.
Augmented Reality for Operations "on: Engineering and using it.
1- Differentiate the square, rectangle, triangle, hexagon and circle in terms of the number of sides

2- Deduce from square, rectangle, triangle, hexagon, and circle (solids)
3- Defines the number of characters in each stereoscopic
4- Determines the number of points of intersection of the sides in each stereoscope
5- Defines the number of faces in both anthropomorphic
6- Draw from each three-dimensional, three-dimensional segment Geometry

7- Embodies the flat shape-2D of each 3D pyramid
8- Performs self-assessment through an electronic test using the application Geomatry App

## Suggested questions:

First, I suggest asking a student what the difference is between a two-dimensional term and a three-dimensional term - and how engineers and artists distinguish between geometric shapes and non-spatial geometric shapes when building and drawing homes, hotels and tools

## Lesson Activity: Part 1

1- I download the engineering application to students 'devices one day before the lesson
2- I make sure that the Bluetooth is connected between the smart screen and the student's devices
3- Distribute the students to the diodes and each smart device
1- Distribute the tasks to the students so that each pair has a task Different on the other binaries
4- Distribute interactive cards to each binary group according to its message (square rectangle - triangle - hexagonal circle)
5- Distribute a worksheet for each binary according to its task in writing the required results which are (number of letters - number of faces, number of points - discoveries Others)
6- Each group displays its products in front of its counterparts by connecting its own device Portable interactive whiteboard.

## Questions outline:

1- Open the application- Geomatry App- from your device and choose the icon shapes
2- Place the mobile camera on the interactive card
3- Write down the information required from you in the worksheet by moving between icons
4- Distinguish between three-dimensional solids and two-dimensional shapes, whichever takes the form of a vacuum and occupies a space "of space?
5- I am waiting for you from other discoveries in the application, always proud of it in front of your colleagues when you show your products on the interactive screen

## Work papers

| shape | number of letters | number of intersection points of letters | number of faces | Cut out its horizontal plane | Added discoveries |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Rectangle |  |  |  |  |  |
| parallelepiped |  |  |  |  |  |
| Cuboid |  |  |  |  |  |
| shape | number of letters | number of intersection points of letters | number of faces | Cut out its horizontal plane | Added discoveries |
| triangle |  |  |  |  |  |
| Triangular prism |  |  |  |  |  |
| Tetrahedron |  |  |  |  |  |

Group 1
triangle
Triangular
prism
Tetrahedron

| shape. | number of letters | number of intersection points of letters | number of faces | Cut out its horizontal plane | Added discoveries |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Square |  |  |  |  |  |
| Cube |  |  |  |  |  |
| Square pyramid |  |  |  |  |  |
| Frustum |  |  |  |  |  |


| shape | number of letters | number of intersection points of letters | number of faces | Cut out its horizontal plane | Added discoveries | Group 4 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Hexagon |  |  |  |  |  |  |
| Hexagonal Torus |  |  |  |  |  |  |
| Hexagonal Prism |  |  |  |  |  |  |
| shape | number of letters | number of intersection points of letters | number of faces | Cut out its horizontal plane | Added discoveries | Group 5 |
| Circle |  |  |  |  |  |  |
| Sphere |  |  |  |  |  |  |
| Cylinder |  |  |  |  |  |  |
| Con |  |  |  |  |  |  |
| Tours |  |  |  |  |  |  |

## Lesson Activity: Part 2



Additional ID to reinforce "what students have learned through the -Geomatry App- and actually link information to convert it into knowledge, students will create a circle and then through learning by playing ((volleyball strategy))".
I choose a student to throw the ball to his colleague who chooses him to answer the name of the numbered form with the image that I display on the screen in terms of the number of characters, the number of faces and the number of points and the form of the horizontal and vertical section of it and in the event that the second student does not know the correct answer he will toss the ball again to another student, and so on until The numbers end in the image.

## Additional Ideas (optional)

Search in your environment for two-dimensional shapes and for three-dimensional figures that match the figures you've learned

## Homework - Self - evaluation

I ask the student to do a self-test through a five-stage application-Geomatry App- with screen capture video and send it to me via my email with an assessment of the degree it

## Notes

1. The binary group distributes the assignment among them accurately with the accuracy of each student in his role in learning and teaching
2. If the number of students is large, the teacher can divide the students into groups consisting of 3 or 4 students and distribute the roles between students
3. In the event that smart devices are not available with students, the teacher can use one device that connects to the screen and displays the interaction of the application with each card separately, and every important task is accomplished for the same common worksheet for all students

The study plan is over
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My school - blended learning

