

Shape Explorers

Session 1

TIME

90 min.
including
break



Art of learning

THEME
10



WARM-UP: THE QUEEN/DRAacula SAYS

This will happen:	Students only obey the commands of the Queen by selecting and showing the correct 2D shape.
Materials needed:	Pocket/envelope with students' names written on the front and containing a set of geometric shapes. Golden Chest.
Preparations in advance:	<p>Cut out the geometric shapes – a set for each student. (Note: these will need to be made well in advance.) These should be made from card in a range of bright colours:</p> <ul style="list-style-type: none"> • 2 circles (1 large, 1 small) of different colours. • 2 equilateral triangles of the same size and colour and another larger triangle of a different colour. • 2 squares (1 large, 1 small) of different colours. • 4 rectangles (2 large, 2 small) of different colours. • 1 oval. • 1 diamond. <p>(More complex shapes like pentagons, octagons, hexagons, trapezoids and parallelograms can be added depending on the ability of the students.) Make a pocket/envelope (which could be made from spare golden paper) for each student – the student's name should be written on the front. Insert a set of geometric shapes inside.</p>
Preparations in the space:	Put the pockets/envelopes in the Golden Chest along with the items needed for the main activity.
The space looks like this:	Students are in a circle or standing behind desks.

GUIDANCE:

1. The Golden Chest is placed where all the students can see it and the adult begins by explaining that some new discoveries have been found in it and that it is very full! They carefully open the Golden Chest and reveal lots of pockets/envelopes, each of which has the name of one of the students on it. They are handed out but the students are asked not to look inside just yet. Once everyone has received their envelope, the students are invited to open it and look inside. The adult asks them what they have been given. They explain that these shapes have an important name – they are called 2D geometric shapes.
2. All the students are invited to find a space (this can be in a circle or standing behind a desk). They are asked to place their geometric shapes down. The adult also has a set. They are asked if they can remember anything about Dracula and the Queen (this was used in Theme 2 – In our Homes and in Theme 7 – In Your Shoes). The students are told that they must follow the commands of the Queen but when the command doesn't come from the Queen, the students must not follow it.
3. So if the adult says, "The Queen commands you to find a circle," and also holds up a circle, they should find the circle and hold it up. Try this out. But if the adult says, "Find a circle," they should not find the circle.
4. The adult continues using commands from the Queen (or from no one) and the students must decide the correct ones to follow.
5. When the warm-up is finished, the students should place all their shapes back in their own envelope and the adult should place them back into the Golden Chest.

REFLECTION: SHAPE FEELINGS

This will happen:	The students share a shape which reflects how they feel.
Materials needed:	
Preparations in advance:	
Preparations in the space:	
The space looks like this:	Students are in a circle or standing behind desks.

GUIDANCE:

1. All the students come together and stand in a close circle or at tables depending on the space.
2. Ask them to close their eyes and to think about how they are feeling right now and to imagine a shape that describes their feelings.
3. The students are asked to open their eyes. Tell them that after a count of three they are all going to draw their shape in front of their bodies using one of their hands. The adult counts to three and then everyone draws their shape.
4. The adult shares their shape and how they feel. Then invite the students to share their shape and/or their feelings – this is an invitation and students may choose not to share and that is okay.

NOTES

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MAIN ACTIVITY: SHAPE EXPLORERS INSIDE

This will happen:	The class receives a letter. Students use Shape Finders to explore shapes inside and they record them in their Shape Discovery Books. They describe a secret shape which other groups have to guess.
Materials needed:	2D shape finders – each group will need a full set of the selected shapes. Flipchart/whiteboard/smartboard and writing utensils. Shape discovery books. Pen/pencil (one for each student). Golden Chest. A letter for the class.
Preparations in advance:	2D shape finders. These will be provided or will need to be prepared well in advance. Select which shapes to use including some familiar shapes and at least one that is a challenge. Transform the students' sound catcher books into shape discovery books. Create a letter for the class in a large envelope with the name/number of the class written on it and write the letter below and place it inside. <i>Dear Class</i> <i>We know that you are brilliant Sound Detectives and so we have new challenges for you all – we want you to be Shape Explorers. You will need some new tools to help you in your important work, these are called Shape Finders and you will use these to explore shapes in and around your school. Your Sound Catcher Books are now transformed into Shape Discovery Books to record the shapes you discover. Are you ready to get started as Shape Explorers?</i>
The space looks like this:	Classroom.

GUIDANCE:

- Gather the students around the Golden Chest and explain that some other interesting objects have been found in the chest. The 2D shape finders are introduced to all the students with no explanation (the adult should look carefully at them with real curiosity) and they are passed around so that everyone gets the chance to look at them.
Ask the students:
 - What do they think these are for?
 - What do they remind them of? (If necessary, they are reminded of the Golden Chest when they were being Sound Detectives and used the magnifying glasses.)
 - What might they be doing today?
- At this point the adult stops and says that they forgot to mention they also found a letter addressed to the class inside the Golden Chest, and asks if they should read it and see what it says. The letter is opened and read out slowly and seriously to the class and the adult asks if everyone is ready to get started, explaining that they will need to have their eyes wide open and their brains really switched on.
- The students are placed into small groups of 3, each has a set of 2D shape finders. From where they are standing/sitting, they are asked to look through their shape finders to see if they can find any shapes that match. After 5-10 minutes, invite the students to share any of their initial discoveries.
- Explain that they have made a good start as explorers but in this important role they must work together well as a group and also begin to record their findings. The adult carefully gives each student their Shape Discovery Book (taken from the Golden Chest) and something to write with. They have 20 minutes (approximately) to work in their group (not individually) to continue to find shapes inside the classroom/school using the different shape finders. They are encouraged to look at the classroom/school from lots of different perspectives (up, down, under, inside, above etc). Before they begin, ask them to discuss how they are going to work as a group and to decide how they are going to record their findings in their shape discovery books. They have a few minutes to discuss and then they can start. Allow the students to work through any challenges they have and only offer support where it is really necessary and even then do so by asking questions which support them to better understand and problem solve for themselves.
- Check in with the groups and encourage them to keep searching and to try to find at least one of each shape.
- After 20 minutes or so, bring all the groups back together. Each group is asked to count how many of each shape they found. The totals for each shape are recorded on the flip chart/white board/smartboard which should have the following heading: 'Shapes we explored in the Classroom/School'. The shapes can be recorded in a number of ways: either as numbers, in the format of a bar chart, the shape itself can be drawn and replicated as many times as is necessary depending on how many they discovered, or draw the actual shape and write the number they discovered inside it (the adult can choose the approach which will work best for the class and they also decide whether they or the students do the writing up/recording.)
- Ask the students to look at their information on the flip chart/whiteboard/smartboard. What do they notice? It may be that as explorers they found lots of one type of shape and not very many of another – why is that? Which shapes were the easiest to find and the hardest – why is that?
- Individually: Ask the students to think of one of the shapes - but keep it a secret! Think of the shape and try to describe it without saying its name or showing it.
- If there is time, have students go in pairs. Each student gets 1 minute to describe their secret shape (without saying its name, pointing to it or showing it.). The other student in the pair then guesses. Switch.
- Next ask each group to find a space to work in. Once they are settled, explain that they are going to share their description of their secret shape with their group. It is one of the shapes they have just discovered (the name of the shape can be whispered to the group or revealed as a drawing). The group must keep the shape a secret and not call out its name or share it with anyone outside their group (note: the same shape may need to be allocated to more than one group). In their groups the adult asks the students to think carefully about their shape and discuss what they know about it, where they might see this shape and how they would describe it without actually showing it or calling its name out. The students are given time to work on this.
- For the next part, each adult will work with half of the groups. After say 10 minutes, state that each group is going to present what they know about their shape to some of the other groups but they must continue to keep the name of the shape a secret. The other groups must think about the information they have been given and try to guess what the shape is. Each group presents all the information about their shape before the others are invited to guess.
- The whole class comes together and the adult thanks the class for being great shape explorers. Explain that the information they shared about their shapes also has another name which is 'properties', adding that different shapes have different properties, for example, a circle is round, all points are an equal distance from the centre point, it is flat which also means it is a two-dimensional shape, lots of plates are the shape of circles, wheels are also.