

# 跨領域師培生教案

名稱：Symmetry

領域：英語、數學



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110年外語領域計畫優良教案徵選

師資培育之大學外語領域教學研究中心(小學組)設置計畫

Center for Research on Foreign Language Teaching for Elementary Schools  
Department of English, National Taichung University of Education

## Group 7: Lesson Plan

Unit Title	Symmetry		
Grade Level	Grade 5	Number of Students	26
Sequence in the Unit	Lesson 5: symmetry	Length of the Lesson	40 minutes
領域核心素養			
英-E-B1 具備入門的聽、說、讀、寫英語文能力。在引導下，能運用所學、字詞及句型進行簡易日常溝通。			
數-E-B3 具備感受藝術作品中的數學形體或式樣的素養。			
節次規劃說明			
Lesson	Summary of each lesson		
1	1. Introduction of symmetry the song. 2. Point to objects that have symmetry when the song stops. 3. Recognize the differences between symmetry and asymmetry.		
2	1. Review the differences between symmetry and asymmetry. 2. Introduce the concept of symmetrical line and the characteristics of symmetrical figures. 3. Teach students geometric figure words, such as rectangle, square, and circle.		
3	1. Read a story about symmetry. 2. By showing some pictures of animals and plants, students discuss whether they're symmetrical or not.		
4	1. Identification of the line of symmetry in the patterns 2. Speak out the sentences about how many symmetrical lines there are in the pattern. 3. Understanding of how symmetry can be used in the art creation		
5	1. Review the shapes and the vocabulary they have learned. 2. Cut the symmetrical shapes by themselves. 3. Make a symmetrical robot with the group.		
6	1. Compete their symmetrical robots. 2. Introduce their robot with target sentences. 3. Review the lesson of symmetry.		
第一節學習重點			
學習表現		學習內容	
英語文 1-III-11 能聽懂簡易歌謠和韻文的主要內容。 2-III-7 能作簡易的回答和描述。 2-III-10 能複誦和吟唱簡易的歌謠韻文。 9-III-3 能綜合相關資訊作簡易的猜測。		英語文 Ab-III-5 所學的字母拼讀規則（含看字讀音、聽音拼字）。 D-III-1 所學字詞的簡易歸類。	
數學 s-III-6 認識線對稱的意義與其推論。		數學 S-5-4 線對稱：線對稱的意義。「對稱軸」、「對稱點」、「對稱邊」、「對稱角」。由操作活動知道特殊平面圖形的線對稱性質。利用線對稱做簡單幾何推理。製作或繪製線對稱圖形。	
第一節課程目標			

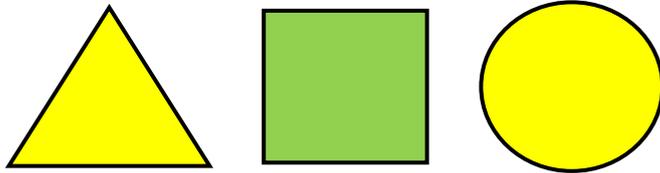
<p><i>Students will be able to</i></p> <ol style="list-style-type: none"> <li>1. <i>Knowing the meaning of symmetry by singing the song.</i></li> <li>2. <i>Enable to point to objects that have symmetry.</i></li> <li>3. <i>Identifying the differences between symmetry and asymmetry.</i></li> </ol>		
學生所需之學科領域先備知識	第一節課使用之英語語言內容	
<p>學生用中文在數學課學過平面對稱圖形的觀念 學生學過以下英文用詞： Is it a _____? Yes, it is. /No, it is not. clock, eraser, pencil case, door, black board, fan...</p>	<p>language of learning 1.vocabulary: symmetry, asymmetry, symmetrical, asymmetrical. 2. Is _____ symmetrical? Yes, it is. /No, it is not.</p>	
	<p>language for learning <u>The clock</u> is symmetrical. <u>The eraser</u> is asymmetrical.</p>	
	<p>language through learning How about <u>the chair</u>? Does it have symmetry?</p>	
Teaching Aids & Multimedia or Resources		
<ol style="list-style-type: none"> <li>1. Video of the song YouTube: <a href="https://youtu.be/lmuRJPGrdBY">https://youtu.be/lmuRJPGrdBY</a></li> <li>2. Papers of the song lyrics (Song lyrics When an object has symmetry, we say it is symmetrical. When an object does not have symmetry, we say it is asymmetrical. An image that has symmetry. A line in the middle imaginary. Fold it in half, along that line, and the shapes will match up. ----- When an object has symmetry, we say it is symmetrical. When an object does not have symmetry, we say it is asymmetrical. An image that has asymmetry. A line in the middle imaginary. Fold it in half, along that line, and the shapes won't match up. ----- When an object has symmetry, we say it is symmetrical. When an object does not have symmetry, we say it is asymmetrical.)</li> <li>3. Power point</li> </ol>		
Teaching Procedure	Time	Assessment

<p><b>Warm- up:</b></p> <p>1. Teacher asks students to listen carefully to the song, and tell what word repeat the most in the song.</p> <p>2. Play the song. (<a href="https://youtu.be/lmuRJPGrdBY">https://youtu.be/lmuRJPGrdBY</a>)</p> <p>3. Teacher: What word repeats the most? (prediction: symmetry) Does anyone know what symmetry means? You can say in Chinese if you don't know how to say in English. (Prediction:線對稱) It means that we fold the shape into half, the two sides match.</p> <p>Example: (Draw a circle on the blackboard.) The circle has symmetry. The circle is symmetrical. (Draw a half circle on the blackboard.)</p> <p><b>Presentation:</b></p> <p>1. Teacher gives students the lyrics of the song.</p> <p>2. Play the song again and ask students to follow the lyrics. (T: When an object has... Ss: symmetry. /T: We say it is... Ss: symmetrical.)</p> <p>3. Hot potato: when the song begins, everyone has to pass the hot potato to anyone. If the song stops in the word “symmetry”, you need to point to anything which has symmetry in the classroom. I will ask “Is <u>the clock</u> symmetrical?”, and everyone needs to tell me yes or not. If the song stops in the word “asymmetry”, you need to point to anything which has not symmetry in the classroom. I will ask “Is <u>the coat</u> asymmetrical?”, and everyone needs to tell me why the coat has not symmetry. (Teacher writes down words students said on the blackboard.)</p> <p><b>Wrap- up:</b></p> <p>1. By using words that students have said on the blackboard, teacher asks students to work in pairs.</p> <p>2. Students should ask each other “Is <u>the clock</u> symmetrical?” Another student replies “Yes, it is. /No, it isn't.” They need to write down a sentence they say.</p>	<p>8</p> <p>22</p> <p>10</p>	<p>Oral assessment</p> <p>Writing assessment</p>
Reflection		
<p>1. What do you think the students actually learned? How do you know?</p> <p>2. What parts were most successful/ least successful? Why?</p> <p>3. Did you finish the lesson on time? If not, why?</p> <p>4. What changes (if any) will you make in your teaching and why (or why not)?</p>		
第二節學習重點		
學習表現	學習內容	
<p>英語文</p> <p>1-III-7 能聽懂簡易的教室用語。</p> <p>2-III-7 能作簡易的回答和描述。</p>	<p>英語文</p> <p>Ab-III-1 子音、母音及其組合。</p> <p>Ac-III-2 簡易的教室用語。</p> <p>D-III-1 所學字詞的簡易歸類。</p>	

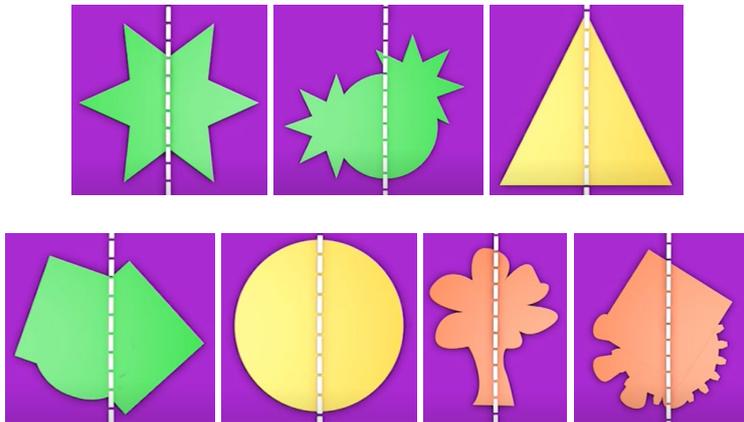
<p>數 s-III-6 認識線對稱的意義與其推論。</p>	<p>數 S-5-4 線對稱：線對稱的意義。「對稱軸」、「對稱點」、「對稱邊」、「對稱角」。由操作活動知道特殊平面圖形的線對稱性質。利用線對稱做簡單幾何推理。製作或繪製線對稱圖形。</p>		
<p>節課程目標</p>			
<p><i>Students will be able to</i></p> <ol style="list-style-type: none"> <li><i>Students can understand more about the concept of symmetry and point to the pictures to distinguish which one is symmetrical.</i></li> <li><i>Learn some common words about shape.</i></li> </ol> <p><i>Discuss with partner, and then check on the checklist. (apply and evaluate)</i></p>			
<p>學生所需之學科領域先備知識</p>	<p>第二節課使用之英語語言內容</p>		
<p>學生用以認識各種幾何圖形 學生學過以下英文用詞： Is ... symmetrical? Yes, it is. / No, it isn't.</p>	<p>language of learning (強調學生學習學科知識所涉及的語言) It is a symmetry/asymmetry. It is a pentagon/oval/diamond/star/rectangle/kite.</p> <p>language for learning (強調學生在 CLIL 課堂上分組討論、合作學習時所需使用的語言。國內老師多半會提供句型，讓學生使用特定句型來進行發表) Is ... symmetrical? Yes, it is. / No, it isn't. What shape is it? It is a ____. Are there any symmetrical shapes in the classroom? Yes, there are. / No, there aren't. Which one is a symmetrical shape?</p> <p>language through learning (這部分語言習得需透過課堂同儕或師生互動而產生，並非教師所能事先預知的，須透過課室觀察才能得知，而後在課堂中可重複使用 (recycle)。學生回答的內容就是 Language through Learning。) It is a ____.(words students may ask)</p>		
<p>Teaching Aids &amp; Multimedia or Resources</p>			
<ol style="list-style-type: none"> <li>Symmetrical song YouTube: <a href="https://www.youtube.com/watch?v=lmuRJPGrdBY">https://www.youtube.com/watch?v=lmuRJPGrdBY</a></li> <li>Worksheet</li> <li>Mirror</li> <li>PowerPoint</li> </ol>			
<p>Teaching Procedure</p>	<p>Time</p>	<p>Assessment</p>	

## I. Preparation:

1. Music: playing the Symmetrical song which students just learned last time and getting students ready for the class.  
(<https://www.youtube.com/watch?v=lmuRJPGrdBY>)
2. Review symmetry and asymmetry: teacher posted some shapes on the blackboard and asked the students



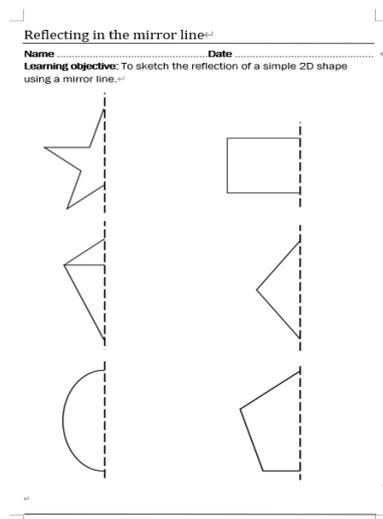
- (1) What do these shapes have in common?
  - (2) How do we call such a shape?
  - (3) How do we call other shapes?
3. Teacher posted all the shapes appearing in the Symmetrical song on the blackboard and asked the students to classify which one is symmetrical.



reference material: Symmetrical song (YouTube:  
<https://www.youtube.com/watch?v=lmuRJPGrdBY>)

## Presentation:

1. Teacher gives the worksheet to the students, and there are only half of the shapes on the worksheet.



2. Teacher asks the students to put the mirror on the line of symmetry and asks the students what they see in the mirror.
3. Teacher asked the students to draw the other half of the shape shown in the mirror.
4. Teacher asks students to cut out the symmetrical shapes.
5. Student cut out their cuttings with the help of their parents and friends.

5mins

Objective # 1

Oral Assessment:  
(1) symmetry and asymmetry

25

Objective # 2

Authentic Assessment:  
(1) concept of symmetry  
(2) line of symmetry

### Reflection

1. What do you think the students actually learned? How do you know?
2. What parts were most successful/ least successful? Why?
3. Did you finish the lesson on time? If not, why?
4. What changes (if any) will you make in your teaching and why (or why not)?

### 第三節學習重點

學習表現	學習內容
英語文 1-III-6 能聽懂課堂中所學的字詞 3-III-6 能看懂課堂中所學的簡易短文之 主要內容	英語文 Ac-III-3 簡易的生活用語。
數學 s-III-6 認識線對稱的意義與其推論。	數學 S-5-4 線對稱：線對稱的意義。「對稱軸」、「對稱點」、「對稱邊」、「對稱角」。由操作活動知道特殊平面圖形的線對稱性質。利用線對稱做簡單幾何推理。製作或繪製線對稱圖形。

### 第三節課程目標

*Students will be able to*

1. Understand the meaning of the line of symmetry.
2. Find out the line of symmetry in a symmetrical object.
3. Complete the worksheet.

#### 學生所需之學科領域先備知識

#### 第三節課使用之英語語言內容

學生已學過： 1. 基本的形狀（圓形、三角形、長方形...） 2. 對稱的概念	language of learning It is _____. (symmetrical/asymmetrical)
	language for learning I think _____ (animal/plant) is symmetrical/ asymmetrical. Because _____.
	language through learning

### Teaching Aids & Multimedia or Resources

1. PowerPoint
2. Video of the story  
 YouTube: <https://www.youtube.com/watch?v=S6SfHkm5-QY>
3. Worksheet

Teaching Procedure

Time

Assessment

<p><b>Preparation:</b> 1. Review: what they've learned in the previous lessons. (e.g. the features of a symmetrical object, recognize the difference between symmetrical and asymmetrical...)</p> <p><b>Presentation:</b> 1. Video: Looking for symmetry (1) Introduce more about what is the line of symmetry. (2) Try to find out the line of symmetry. 2. After watching the video, students need to finish a worksheet.</p> <p><b>Activity:</b> 1. PPT: some pictures of animals and plants (spider, butterfly, sunflower...) (1) Recognize it is symmetrical or asymmetrical and explain why. (e.g. I think the butterfly is symmetrical. Because the two sides can match.) (2) If it is symmetrical, then find out the symmetrical line. (3) Share the observation to the class by using the target sentence pattern: I think _____ is symmetrical/ asymmetrical. Because _____. 2. Students work in group, discuss what buildings are symmetrical around their daily life. (e.g. school, home, cram school...)</p> <p><b>Wrap up:</b> 1. Review the features of the line of symmetry.</p>	<p>5</p> <p>15</p> <p>15</p> <p>5</p>	<p><b>Writing assessment:</b> Students can finish the worksheet after watching the video.</p> <p><b>Oral assessment:</b> Students can use the target sentences to share their observation to the whole class.</p>
<b>Reflection</b>		
<p>1. What do you think the students actually learned? How do you know? The idea of symmetry, how to recognize an object is symmetrical or asymmetrical. By their responds or their worksheets.</p> <p>2. What parts were most successful/ least successful? Why? I think is the fifth and sixth lesson's "making a robot". Everyone can engage in this activity and boost their creativities.</p> <p>3. Did you finish the lesson on time? If not, why? We haven't demonstrated our lesson, so we don't know.</p> <p>4. What changes (if any) will you make in your teaching and why (or why not)? Can design more activities for students to engage in.</p>		
<b>第四節學習重點</b>		
<b>學習表現</b>	<b>學習內容</b>	
<p>英語文</p> <p>◎1-III-7 能聽懂簡易的教室用語。</p> <p>◎1-III-9 能聽懂簡易句型的句子。</p> <p>2-III-7 能作簡易的回答和描述。</p> <p>9-III-3 能綜合相關資訊作簡易的猜測。</p>	<p>英語文</p> <p>◎Ac-III-2 簡易的教室用語。</p> <p>Ad-III-2 簡易、常用的句型結構。</p> <p>B-III-2 國小階段所學字詞及句型的生活溝通。</p>	

數學 s-III-6 認識線對稱的意義與其推論。	數學 S-5-4 線對稱：線對稱的意義。「對稱軸」、「對稱點」、「對稱邊」、「對稱角」。由操作活動知道特殊平面圖形的線對稱性質。利用線對稱做簡單幾何推理。製作或繪製線對稱圖形。		
第四節課程目標			
<i>Students will be able to</i> <ol style="list-style-type: none"> <li>1. find symmetrical lines of the patterns (remember &amp; understand symmetry)</li> <li>2. speak out the sentences which are on the worksheet such as "I have three lines of symmetry." (remember &amp; understand key language and symmetry)</li> <li>3. make paper-cut about symmetry (apply and evaluate)</li> </ol>			
學生所需之學科領域先備知識	第四節課使用之英語語言內容		
學生用中文在數學課學過基本線對稱圖形 學生學過以下英文用詞： Is it in symmetry? Yes, it is. No it isn't.	language of learning Is it symmetrical? Yes, it is. No it isn't. How many lines of symmetry are there?		
	language for learning I have _____ lines of symmetry.		
	language through learning It looks (beautiful, amazing). (words students may ask) That symmetrical pattern is so beautiful.		
Teaching Aids & Multimedia or Resources			
<ol style="list-style-type: none"> <li>1. Worksheet (reference material: <a href="https://www.teachitprimary.co.uk/resources/y2/properties-of-shapes-symmetry/geometry/investigating-lines-of-symmetry/31279">https://www.teachitprimary.co.uk/resources/y2/properties-of-shapes-symmetry/geometry/investigating-lines-of-symmetry/31279</a>)</li> <li>2. Patterns on the worksheet</li> <li>3. Color papers</li> <li>4. Scissors</li> </ol>			
Teaching Procedure		Time	Assessment
<b>Preparation:</b> <ol style="list-style-type: none"> <li>1. Scoringboard introduction: If the students can answer the question, they will get one point.</li> <li>2. Review:            T: Is it symmetrical?            The teacher points anything in the classroom and ask the students.            Students answer the question.            T: Where are the lines of symmetry?            Students point to the lines of symmetry.</li> </ol>		5	<ol style="list-style-type: none"> <li>(1) Students can answer the teacher's question. (Yes, it is. No, it isn't.)  TPR</li> <li>(2) Students can point to the symmetrical lines.</li> </ol>

**Presentation**

Symmetrical lines = Lines of symmetry

How many lines of symmetry do you have?

The teacher takes out the picture and teaches students symmetrical lines by folding the picture.

T: How can we fold the picture?

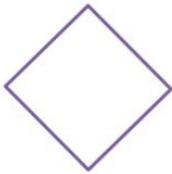
S: Fold the middle line.

T: How many lines of symmetry are there?

S: There are four lines of symmetry.

T: Draw the lines of symmetry and count them.

T: Write down the number of symmetrical lines on the worksheet.



It has ..... lines of symmetry.



It has ..... lines of symmetry.



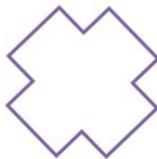
It has ..... lines of symmetry.



It has ..... lines of symmetry.



It has ..... lines of symmetry.



It has ..... lines of symmetry.

10

Students can know how many symmetrical lines are there in the picture and answer the teacher's question.

Students can write the number of symmetrical lines on the worksheet.

### Activity

How to make symmetrical patterns?

T: Take out the scissors and the color paper.

T: Fold the paper and cut the patterns.

利用剪紙做出線對稱圖形，並且上台分享

Make symmetrical patterns by paper cutting. Students have to share their patterns later.



(圖片來源：<https://blog.xuite.net/lyhsiang/twblog/119686259>)



Help students share their works with patterns.

上台分享自己的作品。其他同學要認真聆聽分享，並找出對稱線

Go onto stage and share what you made. Other students should find where the line of symmetry is.

Ex:

T: What did you make?

S: I made two geese and a castle.

T: Are they all in symmetry?

S: Of course!

T: How many lines of symmetry does that pattern have?

S: One.

20

Students can make the symmetrical patterns by paper cutting.

Speaking:

Students can share their patterns to the whole class.

<p>Wrap up Score counting. Reviewing what we learn today The teacher randomly pick up students to answer the question. (worksheet): How many lines of symmetry does it have? It has ____ lines of symmetry.</p>	5	<p>Speaking: Students can read out the sentences on the worksheet.</p>
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### Reflection

1. What do you think the students actually learned? How do you know?
2. What parts were most successful/ least successful? Why?
3. Did you finish the lesson on time? If not, why?
4. What changes (if any) will you make in your teaching and why (or why not)?

### 第五節學習重點

學習表現	學習內容
<p>英語文： 1-III-6 能聽懂課堂中所學的字詞。 2-III-2 能說出課堂中所學的字詞。 4-III-4 能依圖畫、圖示填寫簡單字詞。</p>	<p>英語文 Ad-III-2 簡易、常用的句型結構。 B-III-2 國小階段所學字詞及句型的生活溝通。</p>
<p>數 s-III-6 認識線對稱的意義與其推論。</p>	<p>數 S-5-4 線對稱 線對稱的意義。「對稱軸」、「對稱點」、「對稱邊」、「對稱角」。由操作活動知道特殊平面圖形的線對稱性質。利用線對稱做簡單幾何推理。製作或繪製線對稱圖形。</p>

### 第五節課程目標

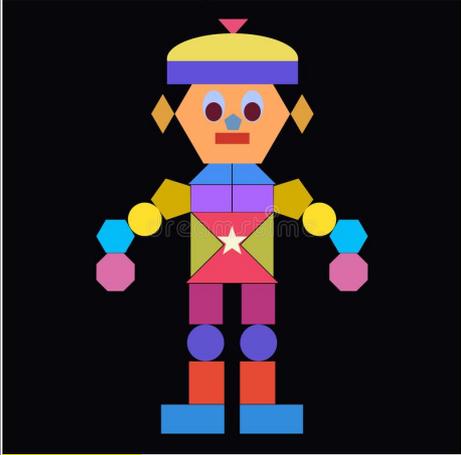
- Students will be able to*
1. cut the symmetrical shapes by themselves. (remember & make the symmetrical shapes)
  2. draw a symmetrical robot (remember & understand music)
  3. answer the questions with the whole sentence (remember and understand the language)

學生所需之學科領域先備知識	第五節課使用之英語語言內容
<p>學生用中文在數學中學過對稱的概念 學生學過以下英文用詞：</p>	<p>language of learning It is a ____ .(a circle、a triangle、a rectangle、big、small)</p>
<p>Is it ____? Yes, it is./ No, it isn't.</p>	<p>language for learning Is ____ symmetrical? Yes it is./ No it isn't.</p>
<p>How many ____ are there? There are/is ____ .</p>	<p>language through learning (Shapes) ____ is symmetrical/asymmetrical.</p>

### Teaching Aids & Multimedia or Resources

1. Question cards
2. Color papers
3. Scissors
4. glue

Teaching Procedure	Time	Assessment
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<p><b>【 WARM UP 】</b>  <u>Do an activity to help students review the vocabulary and sentences.</u>  1.Saperate students into 4 groups. They will take turns that one group will be the judge. And others are participants.  2.Judges need to come up the stage. Teacher will give the judges a question card. And the judges need to read the question, such as, I need three symmetrical things, and one asymmetrical thing.  3.Other groups need to find the things around them to achieve the task. And bring those things up to the stage.  4. Participants need to introduce all the things they have bring up stage by the sentences: It is symmetrical/ asymmetrical.  5.The judges need to check if the things up stage are correct.</p>	10min	TPR Give the correct things to the judge.
<p><b>【 ACTIVITY 1 】</b>  1.Gives each student 10 color papers.  2.Gives them some orders so they need to cut out the shapes for the teacher.  3.Teacher says: “I need one big symmetrical circle.” Then students need to cut out a big symmetrical circle and raise their shapes if they’re finished.  4.After finishing all the shapes, students are going to get together with their group members and answer the questions.</p>	10mins	TPR Cut out the shapes
<p><b>Questions:</b>  How many symmetrical circles are there in your group?  How many symmetrical squares are there in your group?  How many asymmetrical squares are there in your group? Zero</p>	5 mins	Oral Answer the question
<p><b>【 ACTIVITY 2 】</b>  1.Teacher will ask them some questions about a robot.  <b>Questions:</b>  How many noses are there do you think a robot has?  Do you think a robot has a mouth?  How long are the robot’s arms and legs?  2.Show them a picture of a robots and ask some questions.</p>	4 mins	Oral Answer the question
		
<p><b>Questions:</b>  Is the robot symmetrical?  What are the shapes of its eyes?  What are the shapes of its ears?  What is the shape of its nose?  What is the shape of its mouth?  3.Tell students to draw the robot that they want to make with their group.</p>	4 mins	Oral Answer the question
<p><b>【 WRAP UP 】</b>  1.Tell the students that next time they need to use the shapes they cut out in the class to make the robot they have drew, so they need to keep the shapes will.</p>	4mins	
<p>Tell the students that next time they need to finish their robots and come up stage to introduce their robots.</p>	3mins	

## Reflection

1. What do you think the students actually learned? How do you know?
2. What parts were most successful/ least successful? Why?
3. Did you finish the lesson on time? If not, why?
4. What changes (if any) will you make in your teaching and why (or why not)?

### 第六節學習重點

學習表現	學習內容
英語文： 1-III-6 能聽懂課堂中所學的字詞。 2-III-2 能說出課堂中所學的字詞。 4-III-4 能依圖畫、圖示填寫簡單字詞。	英語文 Ad-III-2 簡易、常用的句型結構。 B-III-2 國小階段所學字詞及句型的生活溝通。
數 S-III-6 認識線對稱的意義與其推論。	數 S-5-4 線對稱 線對稱的意義。「對稱軸」、「對稱點」、「對稱邊」、「對稱角」。由操作活動知道特殊平面圖形的線對稱性質。利用線對稱做簡單幾何推理。製作或繪製線對稱圖形。

### 第六節課程目標

*Students will be able to*

1. *Share their robots with the classmates by using simple English. (use target sentence)*
2. *Ask questions to those who are sharing their robots. Like :how many circles are there in your robot? Complete the mission.*

學生所需之學科領域先備知識	第六節課使用之英語語言內容
學生用中文在數學中學過對稱的概念 學生學過以下英文用詞： Is it ____? Yes, it is./ No, it isn't. How many ____ are there? There are/is ____ ____ .	language of learning It is ____ .(circle、 triangle、 rectangle、 big、 small) language for learning Is ____ symmetrical? Yes it is./ No it isn't. language through learning (Shapes) ____ is symmetrical/asymmetrical.

### Teaching Aids & Multimedia or Resources

1. Color paper
2. Scissors
3. glue

Teaching Procedure	Time	Assessment
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<p><b>【WARM UP】</b>  Teacher show his own robot and ask the students question.  First, it is introduction. Second, it's asking questions.  EX. Hello everyone. It is my robot "Jack".</p> <p>Is the robot's head symmetrical? Yes, it is.  Is the robot's body symmetrical? Yes, it is.  Is the robot's hand symmetrical? Yes, it is.  How many kinds of shapes do the robot's hand have?  How many circles, rectangles, squares, triangles, diamonds does the robot have?(choose one shape)</p>	10min	Oral Answer the question
<p><b>【ACTIVITY 1】</b>  The students start to make their robots and the teacher walks around the class.</p>	15min	Finish the robot
<p><b>【ACTIVITY 2】</b>  When they all finish the mission, they need to get on the stage one group by one group and introduce their robot.(follow the <u>sentence pattern</u>)  <b>(SENTENCE PATTERN)</b>  Hello everyone. It is my robot "Jack".(they need to give their robot a unique name)</p> <ol style="list-style-type: none"> <li>1. Is the robot's head symmetrical?</li> <li>2. Is the robot's body symmetrical?</li> <li>3. Is the robot's hand symmetrical?</li> <li>4. How many kind of shapes do the robot's hand have?</li> <li>5. How many circles, rectangles, squares, triangles, diamonds do the robot have?(choose one shape)</li> </ol> <p>Teacher will randomly choose one group to answer a question until the group finish the question. (When they aks one question, the teacher will stand up and pick one group to answer the question.)</p>	10min	Oral Presentation
<p><b>【WRAP UP】</b>  Teacher gives them feedbacks and posts their robots on the blackboard.  Review the vocabulary and the sentence pattern again.</p>	5min	
<b>Reflection</b>		
<ol style="list-style-type: none"> <li>1. What do you think the students actually learned? How do you know?</li> <li>2. What parts were most successful/ least successful? Why?</li> <li>3. Did you finish the lesson on time? If not, why?</li> <li>4. What changes (if any) will you make in your teaching and why (or why not)?</li> </ol>		