附件四：

新北市 112 年度教師跨領域全英語授課教案設計
（課程實施後）

設計者 / 服務學校	劉慧琪、羅文珠/淡水國小		
教案名稱	Turning Shapes 翻轉形狀（之一）- The Beauty of Symmetry 對稱之美	領域	英語跨(視覺藝術)領域
教學年級：國小三年級	預計課程上使用之英語比例： 90 % 《說明》英語比例由原來 98%降為 90% (使用英語比例係指教師以英語授課之時間佔總授課時間之比率)		
學生人數:28 人	教學總節數: 3 節	預計公開授課內容為第 1 節	
預計公開授課之時間： 2023 年 11 月 14 日	預計公開授課之地點： 新北市淡水區淡水國小 英語專科教室	預計公開授課之教師： 姓名：羅文珠 服務學校：淡水國小 專長領域：英語教學	

核心素養	總　綱	B3 藝術涵養與美感素養 B1 符號運用與溝通表達
	領　綱	**【藝術與人文領域】** **藝** -E-B1 理解藝術符號，以表達情意觀點。 **藝** -E-B3 善用多元感官，察覺感知藝術與生活的關聯，以豐富美感經驗。 **【英語領域】** 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。
學習重點	**學習表現**	【藝術與人文領域】 1-Ⅱ-2 能探索視覺元素，並表達自我感受與想像。 1-Ⅱ-6 能使用視覺元素與想像力，豐富創作主題。 3-Ⅱ-4 能透過物件蒐集或藝術創作，美化生活環境。 【英語領域】

		1-Ⅱ-7 能聽懂課堂中所學的字詞。 1-Ⅱ-10 能聽懂簡易句型的句子。 2-Ⅱ-3 能說出課堂中所學的字詞。 2-Ⅱ-6 能以正確的發音及適切的語調說出簡易句型的句子。 3-Ⅱ-2 能辨識課堂中所學的字詞。 ◎3-Ⅱ-3 能看懂課堂中所學的句子。 4-Ⅱ-3 能臨摹抄寫課 堂中所學的字詞。 6-Ⅱ-1 能專注於教師的說明與演示。 6-Ⅱ-2 積極參與各種課堂練習活動。
	學習內容	【藝術與人文領域】 視 A-Ⅱ-1 視覺元素、生活之美、視覺聯想。 視 P-Ⅱ-2 藝術蒐藏、生活實作、環境布置。 【英語領域】 Ac-Ⅱ-1 簡易的教室用語。 Ac-Ⅱ-2 簡易的生活用語。 Ac-Ⅱ-3 第二學習階段所學字詞。 B-Ⅱ-1 第二學習階段所學字詞及句型的生活溝通。
具體學習目標		1. 能夠欣賞、指認含有對稱視覺元素的生活物件或藝術創作。 2. 能夠運用對稱視覺元素，製作杯墊等生活物品與仿非洲陶藝裝飾品。 3. 能聽懂老師的教學指令與教學影片 中的關鍵字。 4. 能夠用簡單的英語介紹自己的作品。
與其他領域/科目/議題的連結		**視覺藝術**
教學資源/設備需求		電腦、三槍投影機、大螢幕、實務投影機、彩色紙、膠水、彩色筆、剪刀、、紅點、藍點、綠點貼紙、萬用黏土、小白板、大白板。
附註		___ 代表可替換同類字詞。 例如: There are triangles and circles. 可替換成 There are squares and rectangles.

各節教學活動設計

節次	教學活動流程	時間	教學資源	教師語言
Lesson One: Understanding by observation, concept, and handwork 第一單元: 由觀察、觀念與手作中了解				
	【引起動機】 《說明》原先由拚出對稱圖形的體驗活動開始，在觀課前試教過其它班級，發現學生視覺活動認知經驗有限，耗時費力。改為直接觀察對稱圖形的例子，作為課程起點。 1. Present a few pictures of symmetry.	3’		1. Is this picture beautiful?

	展示幾個對稱的圖案 2. Guide students to observe symmetry in these examples. 引導學生從這些例子中看到的對稱。			2. Do you see the line in the middle? Do you see the right hand and left-hand sides? This part is A. This part is B. Are A and B the same or different? There are two circles. They are the same. There are a circle and a cross. They are different. Are part A and part B the same or different? The same. Good job! Do you see a central point? Do you see the parts around the central point? Are they the same or different? The same. Good job!
	【發展活動】 1. Introduce the definition of Symmetry and give examples 介紹對稱的定義(包括中心線與中心點)；並舉例說明 2. Present examples of symmetry and guide students to observe and draw middle lines or middle points. 3. Guide students to realize that different viewpoints to one thing can see it either symmetrical or unsymmetrical. 引導學生了解不同角度看同一件物品可以是對稱或不對稱 《說明》增加不同角度對物品是否對稱的了解，建立	12'	電腦、單槍投影機、大銀幕、PPT 學習單 1 剪刀、色紙	1. If you can draw a line in the middle, the left-hand and the right-hand side are the same. Or you draw a point in the middle, all the parts around this point are the same, it is symmetrical. All right? 2. Can you draw a middle line or a middle point in the picture? Is a tree symmetrical? Yes? How do you know? Can you come up here to draw a middle line or a middle point? Great! A tree is symmetrical. 《說明》改用與學生問答的方式，而非老師告知答案，增加師生互動。 3. Let's look at the fish. If you cut it this way, is it symmetrical or unsymmetrical? How about the that way? How about the bus? This way or that way? Is it symmetrical or unsymmetrical?

	學生由平面圖像進入立體物件了解對稱的鷹架。 4. Guide students to observe symmetrical objects in the classroom. 《說明》引導學生觀察在教室立即可見的對稱物品。 5. Guide students to see symmetry in different areas, and guide students to appreciate the beauty of symmetry 展示不同面向的對稱圖案，並引導學生欣賞對稱之美 6. Guide students to cut symmetrical pictures 引導學生剪出對稱的圖形 6.1 Cut the symmetrical picture with a middle line. 6.2 Cut the symmetrical picture with a middle point. 《說明》手作活動改為可以直接觀察、容易操作的剪紙活動	15'		4. Now, is there anything symmetrical in this classroom? Can you see? What is it? 5. Is the picture beautiful? Can you draw a middle line or a middle point in the picture? 6. Everybody, have your scissors 6.1 Now. Let's cut a heart. No. 1, take your green paper. No. 2, fold a middle line. No. 3, cut a heart shape along the middle line. No. 4. Raise your heart for me. Great, good job. 6.2 Let's cut a flower. No. 1, Take your red paper. No. 2, Fold a middle line No. 3, Fold a middle line again. No. 4, Fold a middle line the third time. No. 5, Hold the angle of close side and let the open side upward. No. 6, draw a curve like this. No. 7, Cut a curve. No. 8, Open the paper. Can you see a flower? Is the flower symmetrical? No. 9, Raise your flower for me. Super. Oh, No. You hold the wrong side. Let's all right. We can do it again.

	【統整與總結】 7. Ask students to draw a central line or central point on pictures. 請學生在劃出圖片的中心線或中心點 《說明》把原來的練習調換順序到最後的評量，形成先有手做活動，再有劃線或點的評量順序。 8. Guide students to assess their understanding of symmetry. 引導學生評量自己對對稱的認識 《說明》增加評量的部分，引導學生自行評定自己對對稱的認識是 A, B, C, 或 D 級。 9. Closure: Guide students to tell what learned today. 《說明》引導學生說出今天學了甚麼。	10'		7. Now, draw a middle line or a middle point in these pictures. All right? Let's check! Where is the middle line or the middle point in this picture? Here. Can you show me? How many pictures did you draw right? 8. If you have all six pictures right, you will get an A. Please write an A in the up-right corner. If you have four or five pictures right, you will get a B. If you got thee or two pictures right, you got a C. If you got one or none pictures right, you will get a D. Now write A, B, C, D in the upper right corner on your worksheet. Who got an A? Raise your hand. 9. All right! What have you learned today? Raise your heart for me. Is the heart symmetrical? Why...Yes, there is a middle line. Raise your flower. Is the flower symmetrical? Yes? Why? Great! There is a middle point. Good job!

附註: 第二、三節課課程設計同前。唯第二節課製作非洲紙陶，增加貼點評量的活動，學生進行同儕互評，用貼點的方式，選出顏色最鮮艷、形狀最好看、和最特殊的三類作品。使用教室語言如下:

1. All right. Everybody takes one red dot, one blue dot and one green dot. The red dot means most
colorful. The picture has many, many colors. The blue dots mean the nicest shaped. The picture has a good drawing of shapes. The green dot means the most special. The picture is very new, very different from the other pictures.
2. Are you ready? Bring your paper and pencil. Stand up. Go and look at all the pictures. Write down the numbers of your classmates for the red dot, blue dot and green dot. You cannot write your own number. All right! Ready? Go! O.K. Sit down. If you write the number of classmate for red/blue/green dot, raise your hand. Great!
3. Stand up. Line up. Put your dots beside the pictures you want.
4. Well, let's see. Who got most red dots? Whose picture is the most colorful? Who got most blue dots? Whose picture is nicest shaped? Who got most green dots? Whose picture is more special? Great! Give them a big hand.

連結參考資料

1. Art Lessons for Kids: African Pottery Drawing

https://www.youtube.com/watch?v＝IgDzS3Tk6r0&ab_channel＝MrPstudios

2. A Geometric Art Project Featuring Symmetry

https://www.youtube.com/watch?v＝5C9o65rnq4E&ab_channel＝Art%26Drawingwithsiblings

3. The Beauty of Tiles in Taiwan
https://www.youtube.com/watch?v=5ySUuiUKgn0

4. Taiwan-Tile Museum in Chia-Yi
https://www.youtube.com/watch?v=ueUx35BiI08

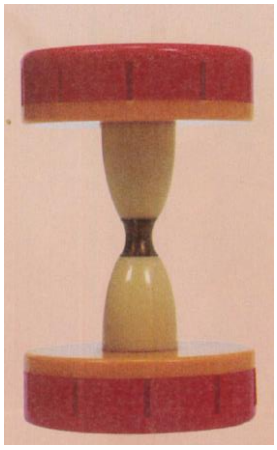
5. 留住美麗的曾經 台灣的禮物花磚復興 一步一腳印 20180722

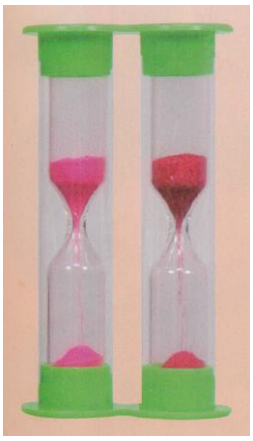
https://www.youtube.com/watch?v＝9oQvkKyLizo

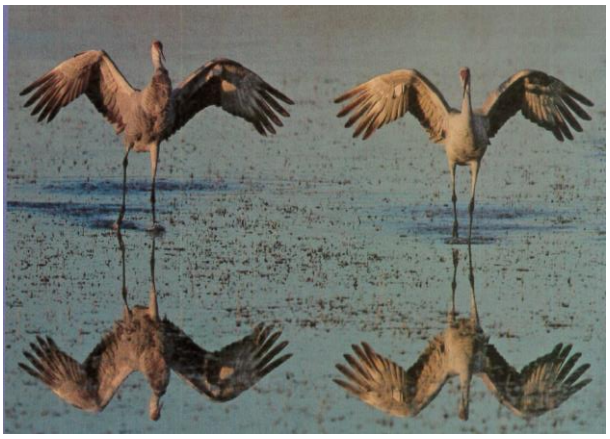
學習單 1(會印成黑白)

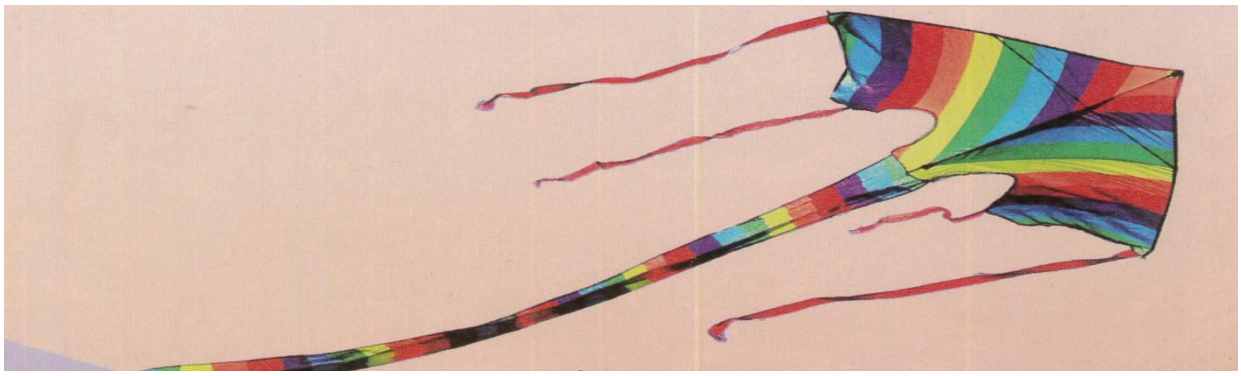
Turning Shapes 翻轉形狀（之一） - The Beauty of Symmetry 對稱之美

Class: _____ No.: _____ Name: _____









學習單 2

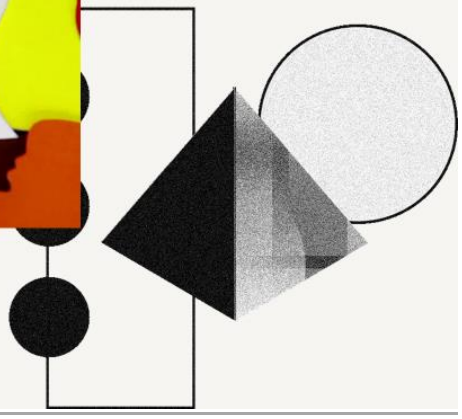
This is my African paper pot.

There are _____ and _____.

The triangles are _____. The circles are _____.

教學 PPT

Turning Shapes



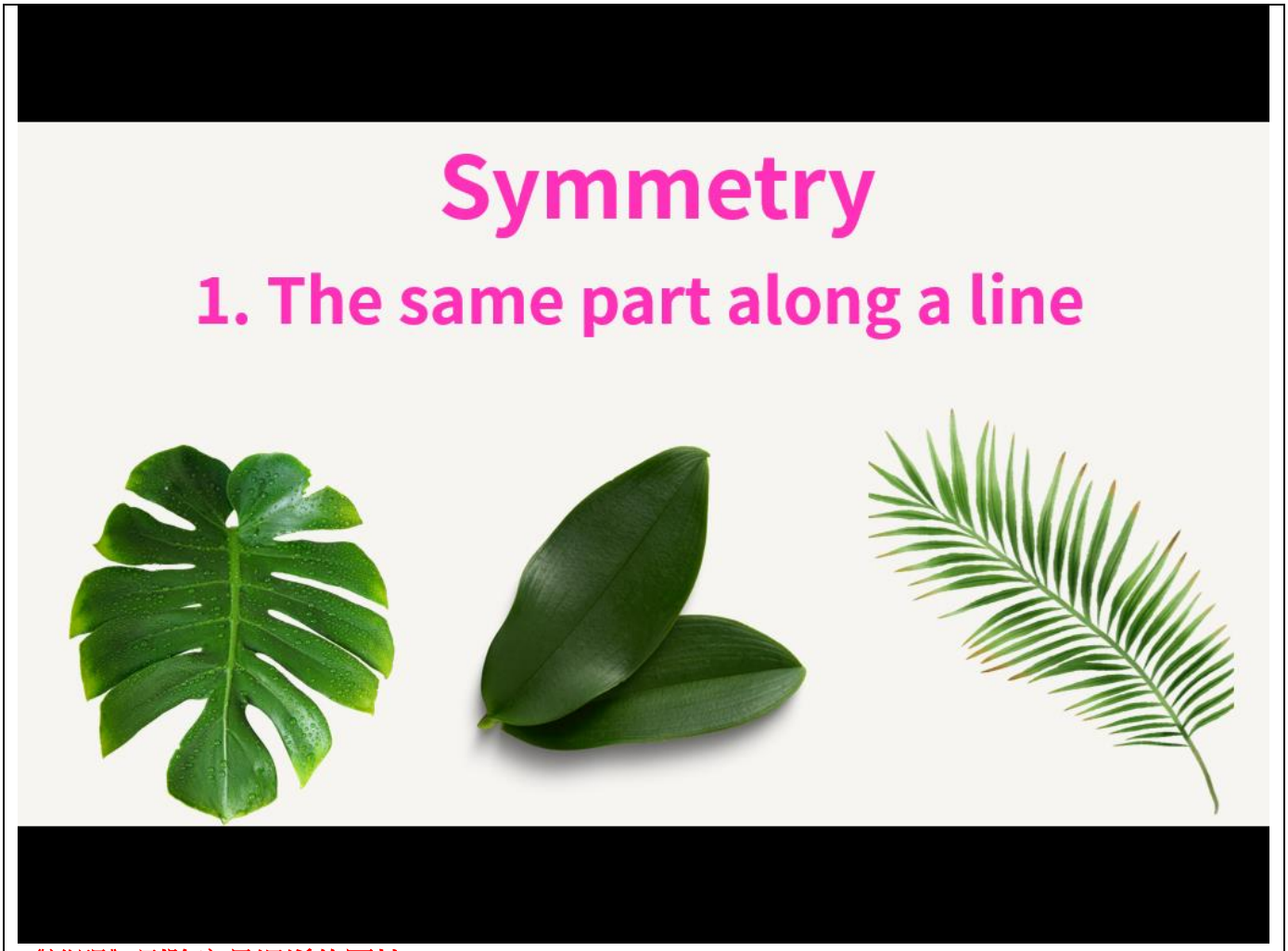
The Beauty of Symmetry

Lesson One

1. Observation
2. Concept
3. Handwork with Understanding
4. Assessment

《說明》刪除原來第一項 Maybe Experience Task, 增加最後的第四項 Assessment

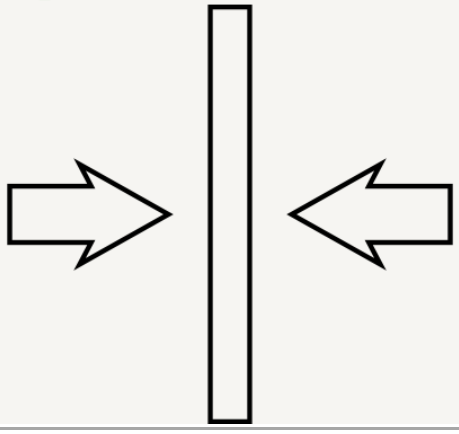
What is symmetry?



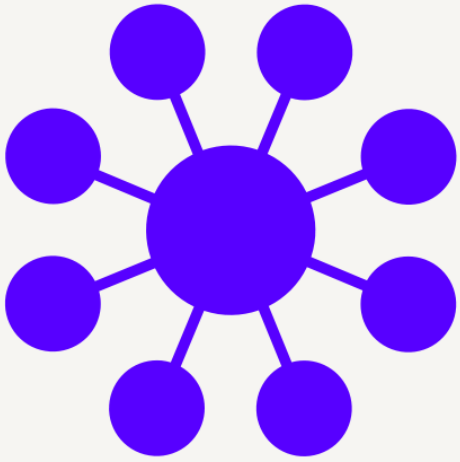
《說明》刪除容易混淆的圖片

What is symmetry?

When you fold into halves.
The two parts are the same.

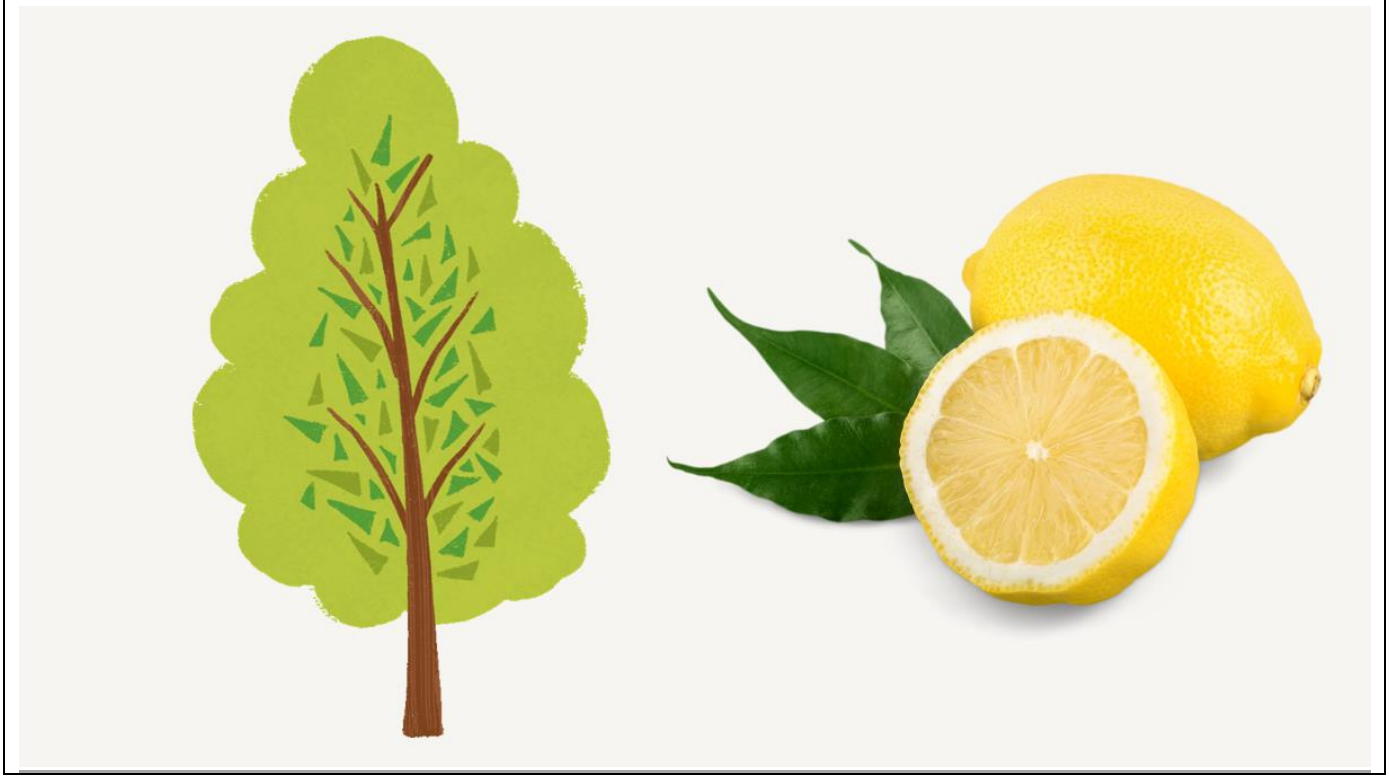


There is a central point.
Every part from it is the same.



《說明》把概念說明往前移。舉幾個例子後，就說明概念。

《說明》刪除容易混淆的圖片

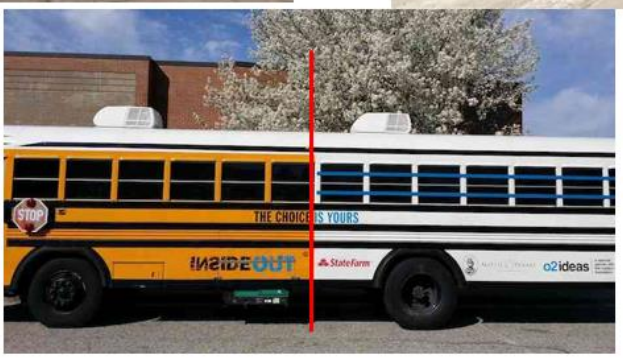


《說明》刪除容易混淆的圖片

See From Different Eyes

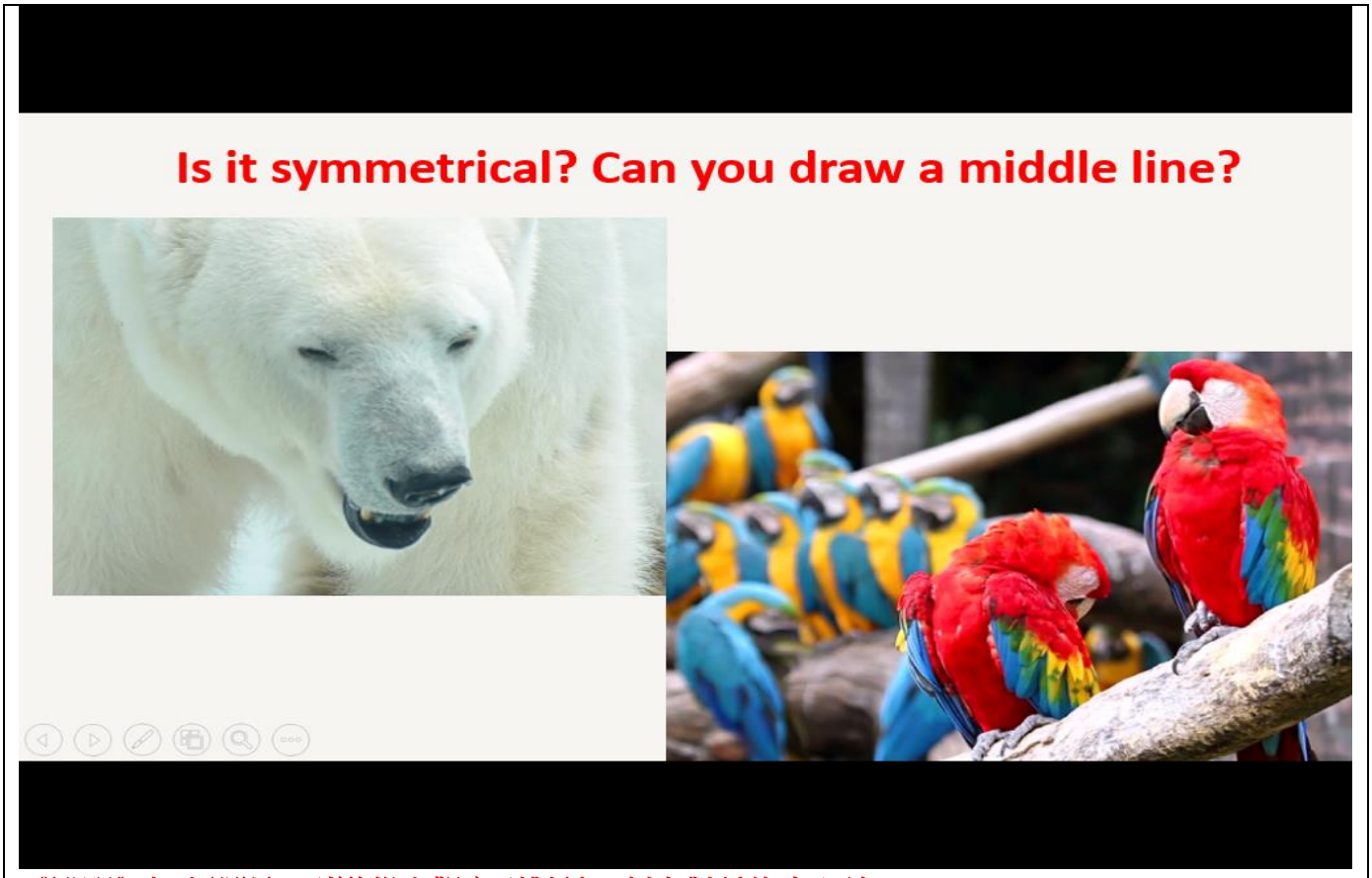
Symmetrical or unsymmetrical?

《說明》加入由不同角度看物件，會看到「對稱」；也會看到「不對稱」的新單元。

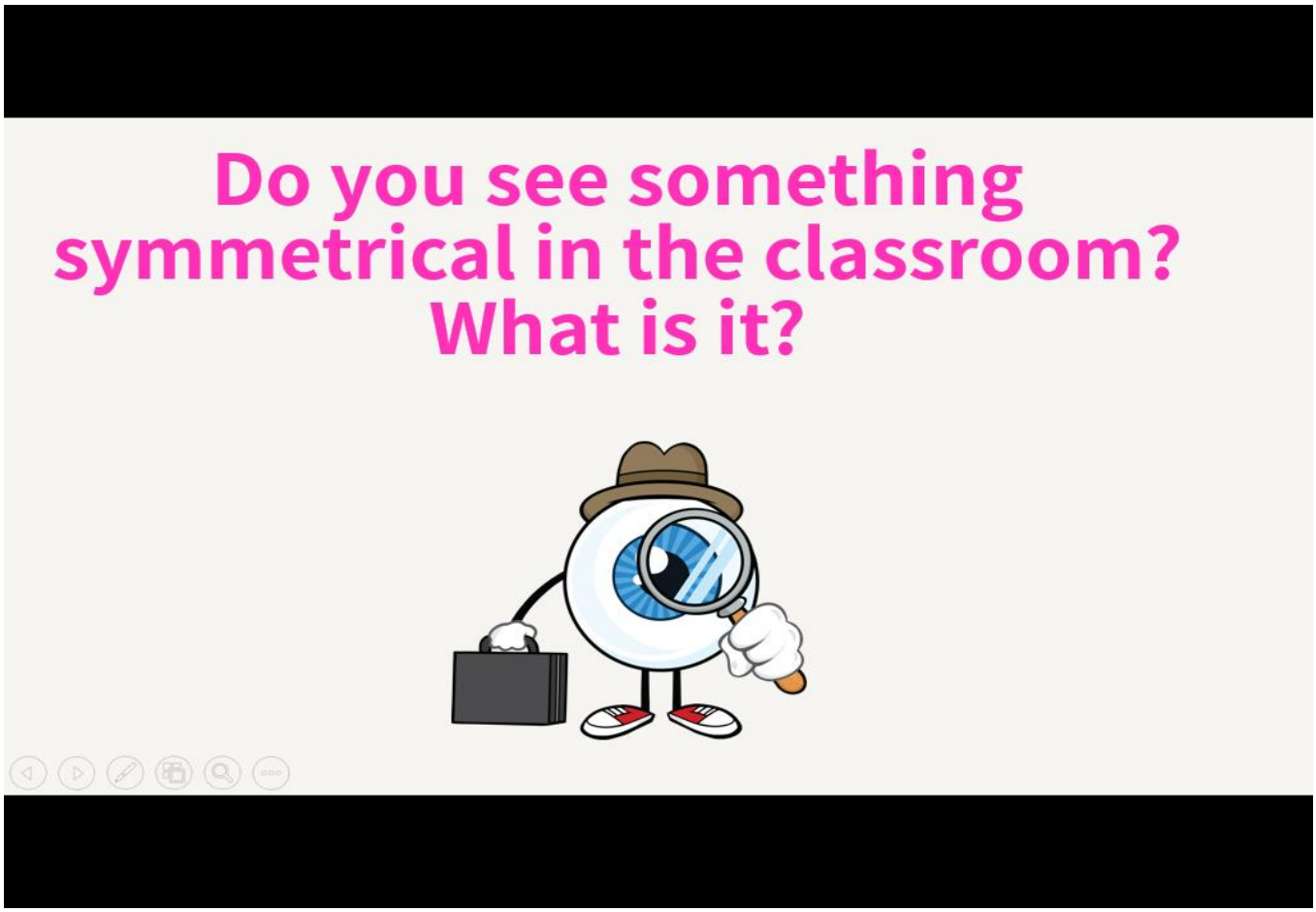


Symmetrical or unsymmetrical?

《說明》加入由不同角度看物件，會看到「對稱」；也會看到「不對稱」的新單元。

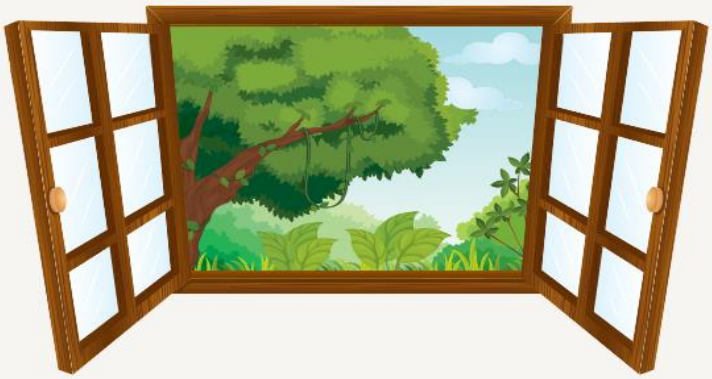


《說明》加上問題，引導學生觀察到對稱；劃出對稱的中心線。



《說明》引導學生觀察在教室立即可見的對稱物品

In the Classroom



《說明》刪除容易混淆的圖片

What else?

A Hut

[redacted]

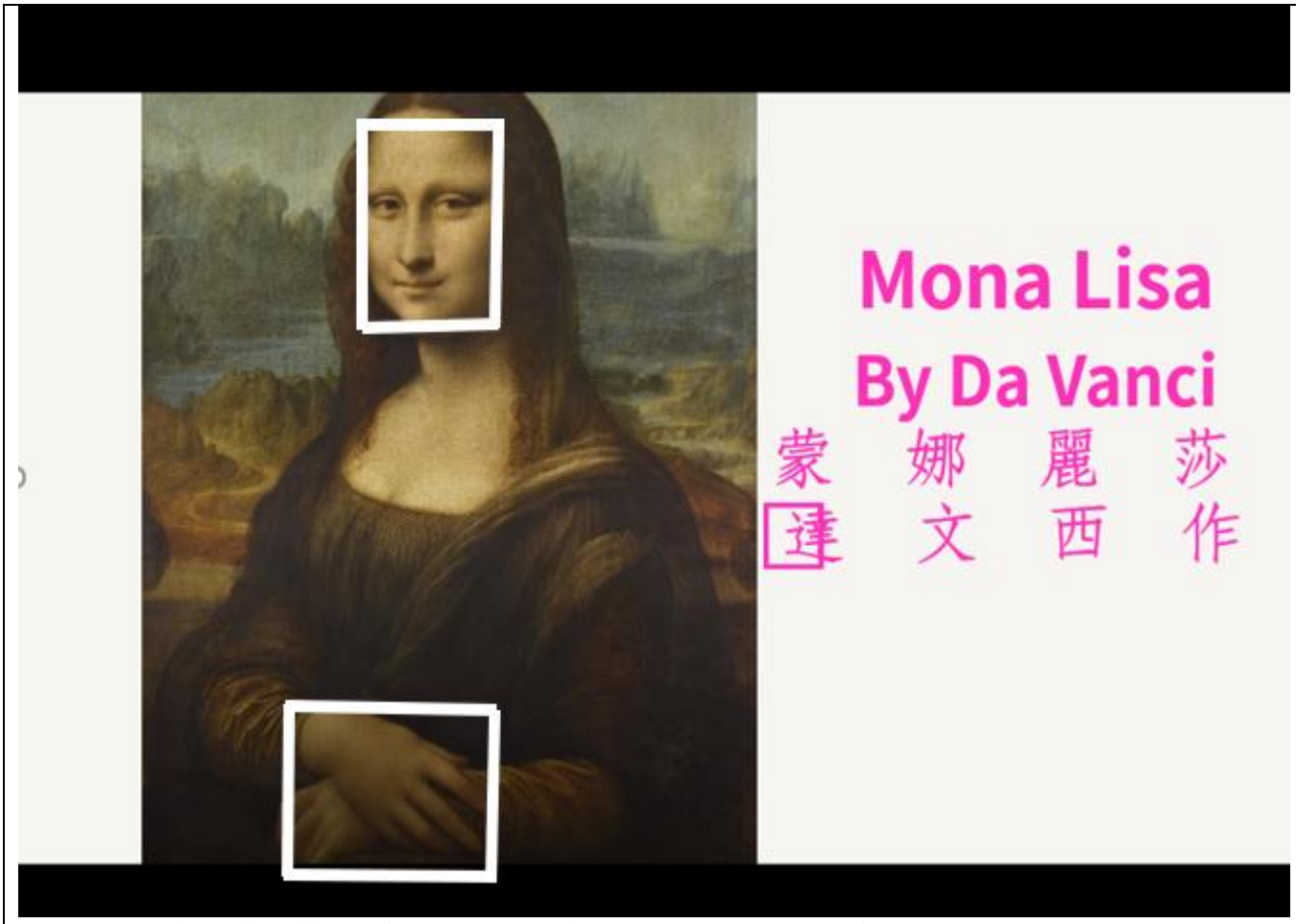
A House

[redacted]

《說明》刪除容易混淆的圖片，並畫上輔助線，協助學生觀察對稱。

A Church

In the Art Work



《說明》世界名畫或藝術品附上中英文標題，增加學生知識。畫上輔助線，協助學生觀察對稱。

《說明》世界名畫或藝術品附上中英文標題，增加學生知識。

《說明》世界名畫或藝術品附上中英文標題，增加學生知識。畫上輔助線，協助學生觀察對稱。

《說明》世界名畫或藝術品附上中英文標題，增加學生知識。

Task 1: Cut a Heart

No. 1, take your green paper.
No. 2, fold a middle line.
No. 3, cut a heart shape along the middle line.
No. 4. Raise your heart for me.

Task 1: Cut a Flower

No. 1, Take your red paper.
No. 2, Fold a middle line.
No. 3, Fold a middle line again.
No. 4, Fold a middle line the third time.
No. 5, Hold the angle of close side and let the open side upward.
No. 6, draw a curve like this.
No. 7, Cut a curve.
No. 8, Open the paper.

《說明》增加手做活動 ，協助學生從經驗中理解對稱。

Assessment
Draw a middle line or a middle point in the pictures

Assessment

Number of Pictures Right	Grade
6	A
4-5	B
2-3	C
0-1	D

《說明》第二課與第三課 PPT 同前