【附件 4】

113 學年度小學數學雙語教案設計競賽

教案設計格式範例

壹、設計理念

本課程的設計以學生的先備知識為基礎，適合具備 100 以內數字認識與基本點數能力的學生。課程延續點數概念，通過情境化的問題設計，讓學生在具體情境中發展有效的快速點數策略。

針對不同的分組點數方法，如「count by two」「count by five」「count by ten」，本課程鼓勵學生實際操作教具進行分類和整理，也強調透過分組活動腦力激盪提升計數效率，逐步引導學生理解快速點數。

透過分組計數，學生將體會到點數技巧帶來的數量規律性及其帶來的簡便性，進一步為他們奠基十進位的計算概念，使其更順利地過渡到未來的數學學習。

貳、教學分析

一、 教材分析

本教材從學生常見的計數情境出發，說明計數對於生活和學習數學之重要性，並介紹計數的基本規則及如何以不同策略加快點數。教材強調分組點數法的實用性與便捷性，並詳細介紹「count by two」「count by five」「count by ten」等策略，通過學習單及百數表等輔助工具幫助學生在學習過程中掌握點數技巧，學生可以理解這些點數坊法不僅不改變點數的結果，還顯著提升計算速度，並為未來的十進位學習奠定基礎。

二、 學生分析

本課程的學生需具備 100 以內數字的認識與基本點數能力，由於部分學生可能對 50 以上的數字較不熟悉，課程給予百數表幫助學生突破這一困難。

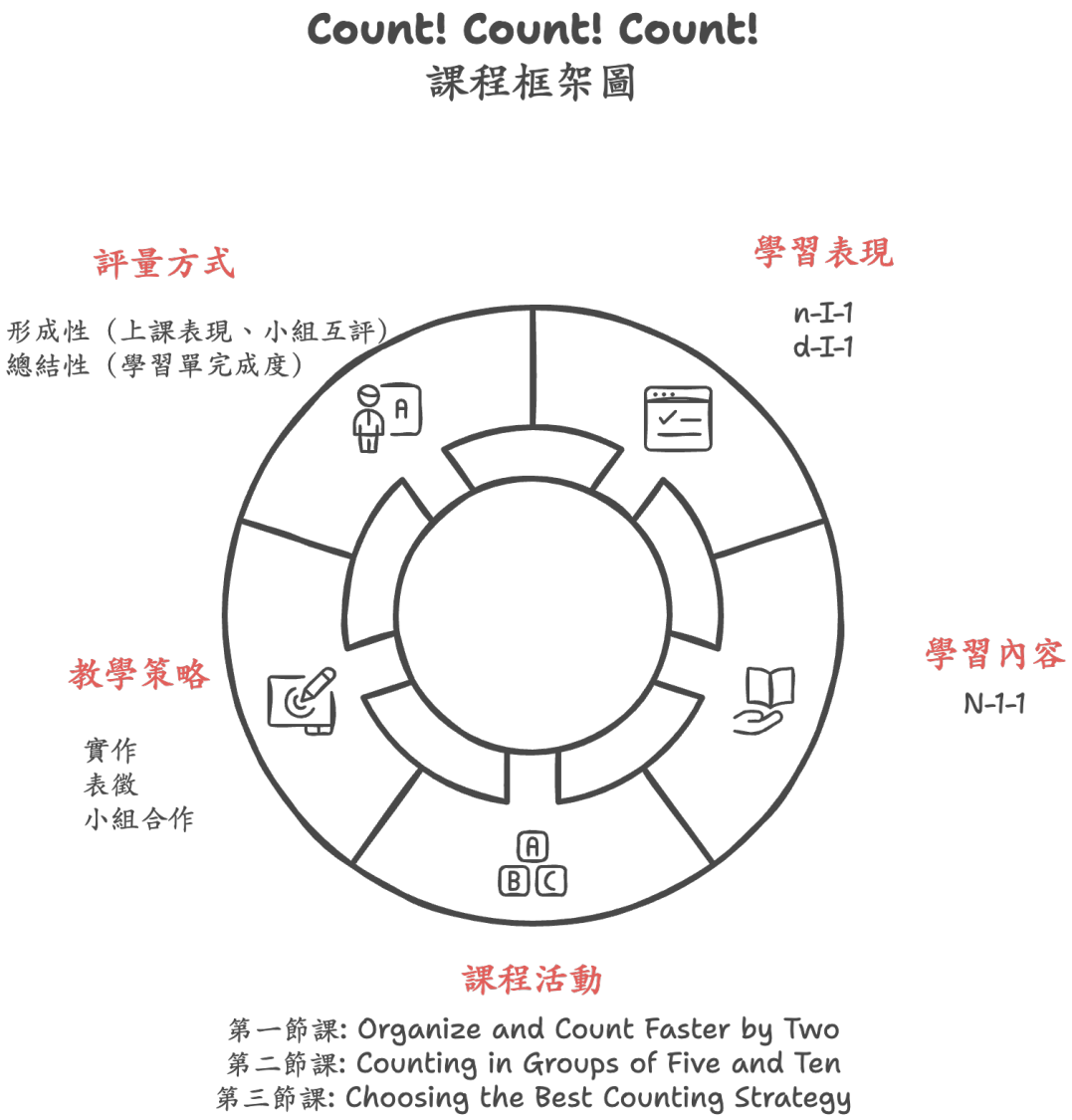
此外，學生可能尚未理解學習快速點數的必要性，因此課程透過生活化情境實例說明此技能的應用價值，幫助學生認識快速點數的實用性。

在合作學習中可能會出現秩序問題，因此在課堂活動前說明班級秩序規則，課程中會安排明確的分工與指導，確保合作學習的順利進行。

三、 教學方法分析

本課程將採用多元教學方法，包括講述法、合作學習和實作。講述法將用於介紹計數的重要性及不同的點數策略；合作學習則讓學生通過小組討論與實踐，強化點數技巧；最後通過實作活動讓學生直接應用所學策略，以鞏固學習效果並促進知識的內化。

四、課程概念架構圖



參、教學活動設計

單元名稱	Count! Count! Count!	**適用年級**	一年級
課程名稱	1. Organize and Count Faster by Two 2. Counting in Groups of Five and Ten 3. Choosing the Best Counting Strategy	**教學時間**	共三節課，120 分鐘
教材版本	自編		
教學準備	百數表、學習單、小白數塊、數棒、計時器		

能力指標/學習表現	分年細目/學習內容	單元教學目標		
n-I-1 d-I-1	N-1-1	1. 學生能認識 100 以內的數字並理解不同點數策略。 2. 學生應用點數策略，並且在日常生活中應用此策略。 3. 學生能比較並選擇適合的點數方法，提升數量感和計算能力。		
單元教學目標	教學內容	時間	評量方式	備註
第一節課 Organize and Count Faster by Two	一、準備活動 **Greeting the Class.** **Teacher shows the first handout with 20 students in a random line-up.** T: How many students are in this paper? Ss: Twenty. T: How do you count? S: One by one. T: Please mark each student with a number to confirm that there are twenty students. **Student Task:** Students write numbers next to each icons on the handout and confirm the total is twenty. 二、發展活動 **Activity 1: Counting Practice with an Organized Line-Up** **Teacher provides the second handout with students organized by rows.** T: Write down numbers next to each student. Confirm if there are twenty students.	5mins 15mins	口語評量 實作評量 活動參與度 口語評量 實作評量	**first handout** 見**附件（一）** **second handout** 見**附件（二）**

	T: Can you count faster now? Ss: We don't know. T: Can you answer in 6 seconds? Let's try. How many boys? S: "Ten boys" or "I couldn't count in time." T: "How many girls?" S: "Ten girls", or "I couldn't count in time." **Teacher asks students who count faster.** T: Why you can count faster? **Ss:** It was faster because it was grouped. T: Grouping helps us count faster. Let's count faster!" **Activity 2: Counting by Two with Chopsticks** **Teacher introduces 14 chopsticks and number cards from 1 to 20.** **T:** Count each chopstick one by one and put the number cards beside each chopstick. T: Can we count faster than one by one? Ss: I don't know. **Guided Discussion on Grouping by Twos** T: How many chopsticks do you usually use to eat? S: Two chopsticks. T: Let's group the chopsticks in pairs, like we use them to eat. **Teacher demonstrates grouping three pairs of chopsticks.** T: In each pair, the first chopstick is assigned numbers 1, 3, and 5, while	15mins	活動參與度 口語評量 實作評量	筷子 **1-20 數字卡**

	the second chopstick is counted aloud as 2, 4, and 6. T: If we count these 6 chopsticks without saying 1, 3, and 5, does it change the total? S: Yes, they are same. **Counting by Twos Practice** T: Now let's skip the first number in each pair and count only the second number. Did the final count change when we skipped the other numbers? S: No, the amount stays the same. T: Now, let's count by two and record the time it takes. 三、總結活動 T: Is it faster counting by two? S: Yes, it's faster. T: Why? Ss: We organized the numbers and counted by two. T: Choosing the right way to count helps us do it faster and better. **Homework** Students practice second worksheet using the counting strategy they learned to group items in circles and record the counting process. **Question1:** How many boys? Count by two: 2, 4, 6, 8, 10 – 10 boys. **Question2:** How many girls? Count by twos: 2, 4, 6, 8, 10 – 10 girls. ~~第 1 節結束~~	5mins	口語評量 實作評量	second worksheet 見**附件（二）**
第二節課 Counting in Groups of Five and Ten	一、準備活動 **Greeting the Class. Group into groups, four people per group**	5mins	活動參與度 口語評量	

	T: Have you ever been to a night market? Ss: Yes, I went to the night market before. T: What food do you usually eat at the night market? Ss: I usually eat bubble tea, stinky tofu, and bird eggs. 二、發展活動 **Group Activity 1: Counting by Groups of Five** **Teacher introduces 25 bird egg cards and number cards from 1 to 25.** T: How many bird eggs are there in total? Students count each picture. Ss: Twenty-five. T: Put the number card beside each picture of eggs. After Ss done. T: What counting strategy did we use in the last lesson? Ss: We can use count by two. T: Let's try count by two. After Ss done. T: Is there anything left if you count 25 by 2? S: Yes. Teacher: How many bird eggs are there usually in a roll? (Teacher provides an example image.) Ss: Five. Teacher: Do you remember the strategy to group and skip count?	10mins	口語評量 實作評量	鳥蛋圖卡 1-25 數字卡

	Ss: Yes. Teacher demonstrates counting ten bird eggs in groups of five, saying only 5, 10. **After Teacher demonstrates** T: It's your turn. How many bird eggs will we have when we count by five? Ss: Five, ten, fifteen, twenty, twenty-five. T: One roll has five bird eggs, so we can count by five. **Teacher shows the fingers of both hands.** T: What else can get count by five? Ss: Hand. **Group Activity 2: Counting by Groups of Ten** Teacher distributes 70 small blocks and Hundreds table to each group. T: Can you use the counting strategy of count by two or count by five to count the total number of blocks? After Ss counted. Ss: There are 70 blocks. T: Is there a way to count even faster? Ss: Maybe. / I don't know. **Teacher provides a counting stick that represents ten units**. T: Can I count group them? Ss: Yes, you can. Teacher group 20 blocks by ten. T: 10, 20. Is it faster? Ss: Yes.	15mins	口語評量 實作評量	小白數塊 10 單位數棒 百數表

	T: Can you use the counting strategy of count by ten to find the total blocks? Ss: Yes. T: Can you count faster, when we count by ten? Ss: Yes, we can. 三、總結活動 T: Which counting method is the fastest? Why? Ss: Because is bigger. T: Counting by ten is the fastest. Because counting by ten can skip more numbers. Right? Ss: Yes. That's right. T: Choosing the right way to count helps us do it faster and better. ~~第 2 節結束~~	10mins	口語評量 小組互評	
第三節課 Choosing the Best Counting Strategy	一、準備活動 T: What counting strategies have we learned so far? Ss: Organizing, count by two, count by five, count by ten. T: Can we use more than one counting strategy? Ss: Maybe. T: How do you Counting 20 by two? Ss:2,4,6,8,10,12,114,16,18,20. T: How do you Counting 20 by five? Ss: 5,10,15,20. T: How do you Counting 20 by ten? Ss: 10,20.	5mins	口語評量	
	二、發展活動 **Group Activity 1** **Teacher distributes 50 mooncake**	10mins	口語評量 實作評量	月餅圖卡 計時器

	cards and a timer to each group. T: Let's have a competition. Can your group find a way counting fastest? Ss: Yes. T: Let's start. **After Ss done.** Ss: Count by ten. T: Perfect! **Group Activity 2: Mixed Counting Challenge** Teacher gives number like 29, 46, 73, and 88, which are not multiples of 2, 5, or 10. T: For a given number, how many ways can we find to count it? Ss: Many ways. T: Let's try to find out in ten minutes. Don't forget to write it down. **Teacher sets a timer for 10 minutes.** Students experiment with different combinations of counting strategies, such as count by two, count by five, or count by ten. **After Ss done.** They identify different grouping methods and record them on their worksheet. Teacher says: Time's up! Everyone did a great job. Please count the number of strategies your group found. 三、總結活動 T: Did using these counting	15mins 10mins	口語評量 實作評量 學習單 口語評量	學習單見附件（三）

	strategies make counting easier and faster? Ss: It's faster to count by ___. T: What counting strategies did you just use? Ss: I organized first, then I counted by two, five, or ten. T: Counted by two, five, or ten can be mixed to solve problems in life. Is it right? Ss: Yes. T: Is there other things that could use mixed counting strategy? Ss: Coins, Fruits etc. T: Right. Counting strategy is it faster and better.		小組互評	

肆、教學評量

單元教學目標	評量方式	備註
第一節課 Organize and Count Faster by Two 學生能認識 100 以內的數字並理解整理及兩個兩個點數的策略。	形成性：上課討論、口頭評量、實作評量 總結性：學習單作業	
第二節課 Counting in Groups of Five and Ten 學生能比較並選擇適合的點數方法，提升數量感和計算能力。	形成性：上課討論、口頭評量、實作評量 總結性：小組互評	
第三節課 Choosing the Best Counting Strategy 學生應用點數策略，並且在日常生活中應用此策略。	形成性：上課討論、口頭評量、實作評量 總結性：學習單作業	

附件（一）

line up form



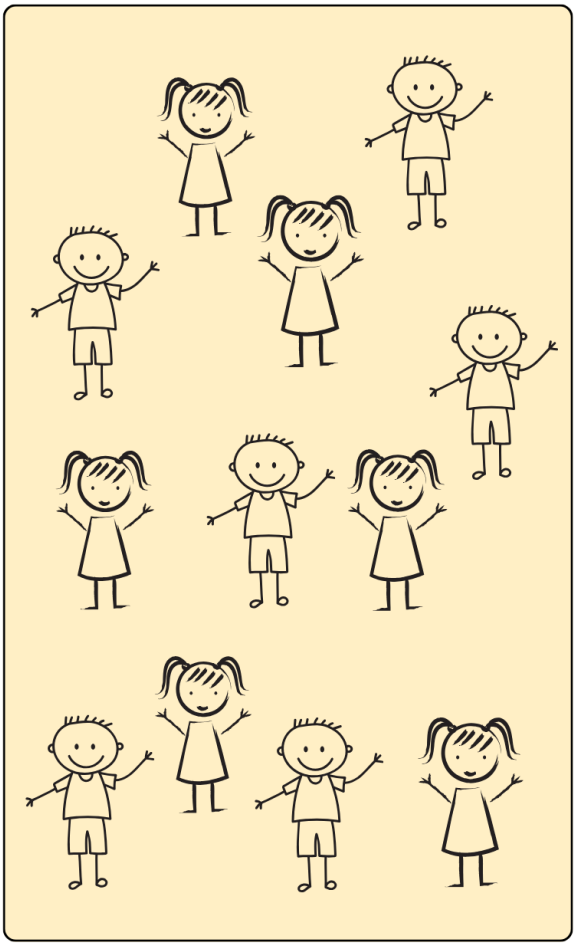
Teacher

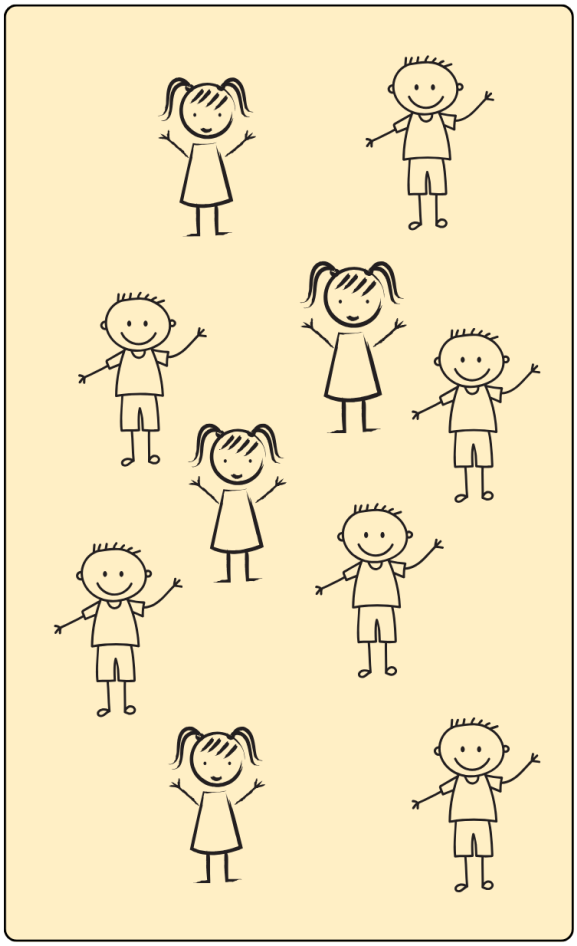
Front Gate line

前ㄑㄧㄢˊ門ㄇㄣˊ路ㄌㄨˋ隊ㄉㄨㄟˋ

Back Gate line

後ㄏㄡˋ門ㄇㄣˊ路ㄌㄨˋ隊ㄉㄨㄟˋ





How many students are in our class? _____

Do you think you can count faster?

How to do?

front door

附件（二）

line up form



Teacher

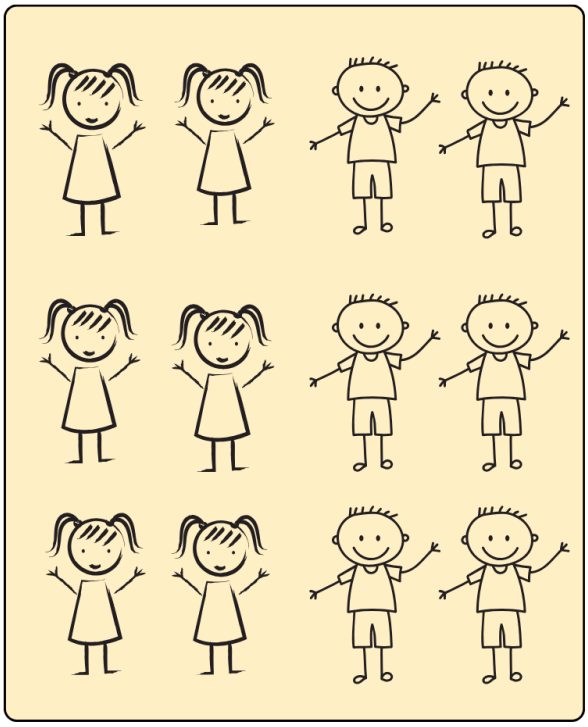
Front Gate line

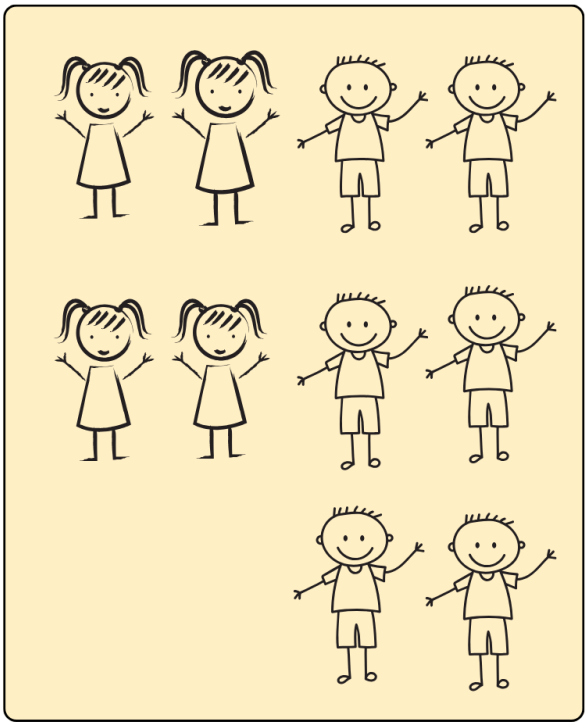
前ㄑㄧㄢˊ門ㄇㄣˊ路ㄌㄨˋ隊ㄉㄨㄟˋ

Back Gate line

後ㄏㄡˋ門ㄇㄣˊ路ㄌㄨˋ隊ㄉㄨㄟˋ

How many students are in our class? _____



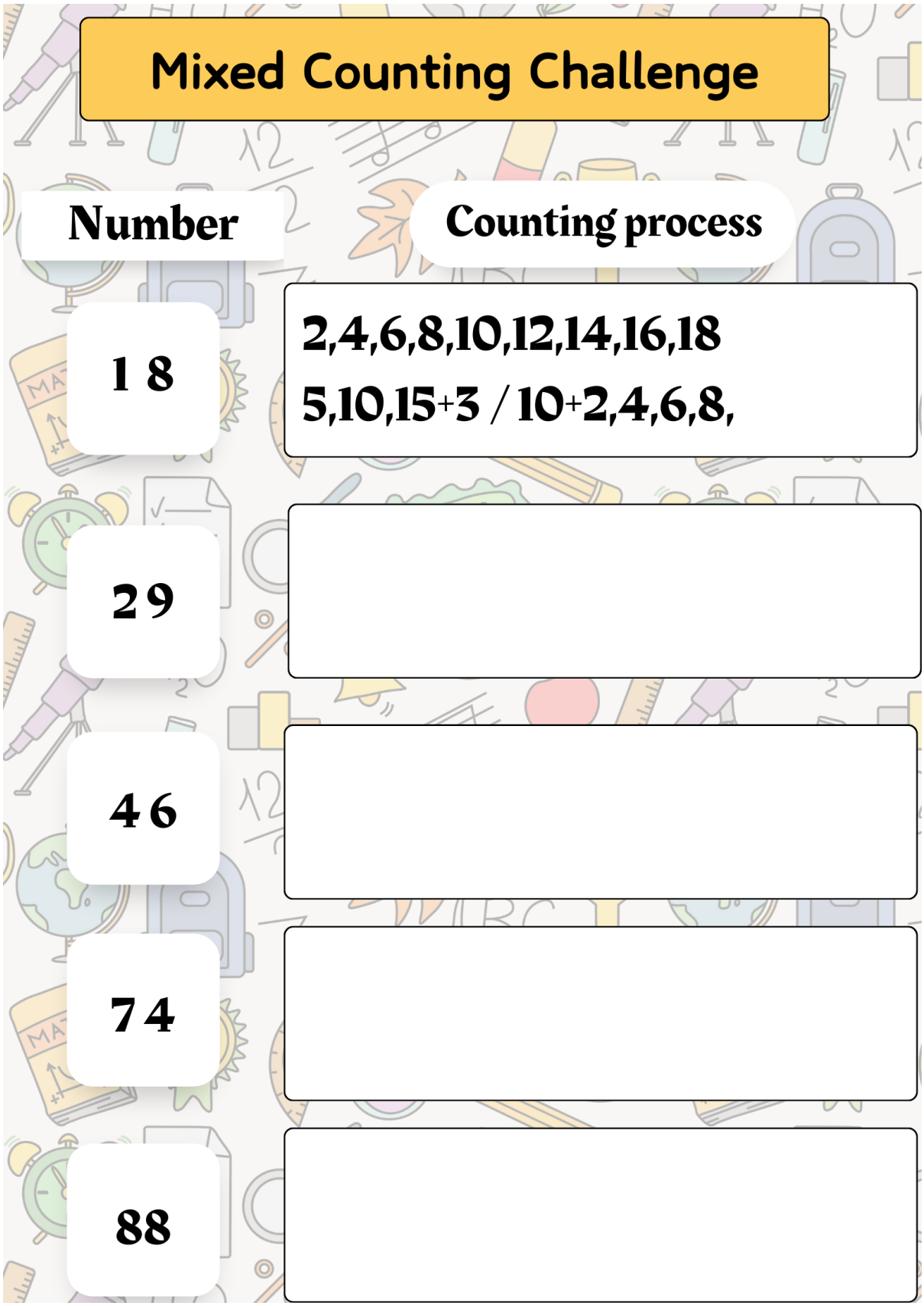


How many students? 2,4,6,8,10,12,14,16,18,20. 20人

How many boys? _____

How many girls?_____

附件（三）


Mixed Counting Challenge
Number
Counting process
18
2,4,6,8,10,12,14,16,18
5,10,15+3 / 10+2,4,6,8,
29
46
74
88