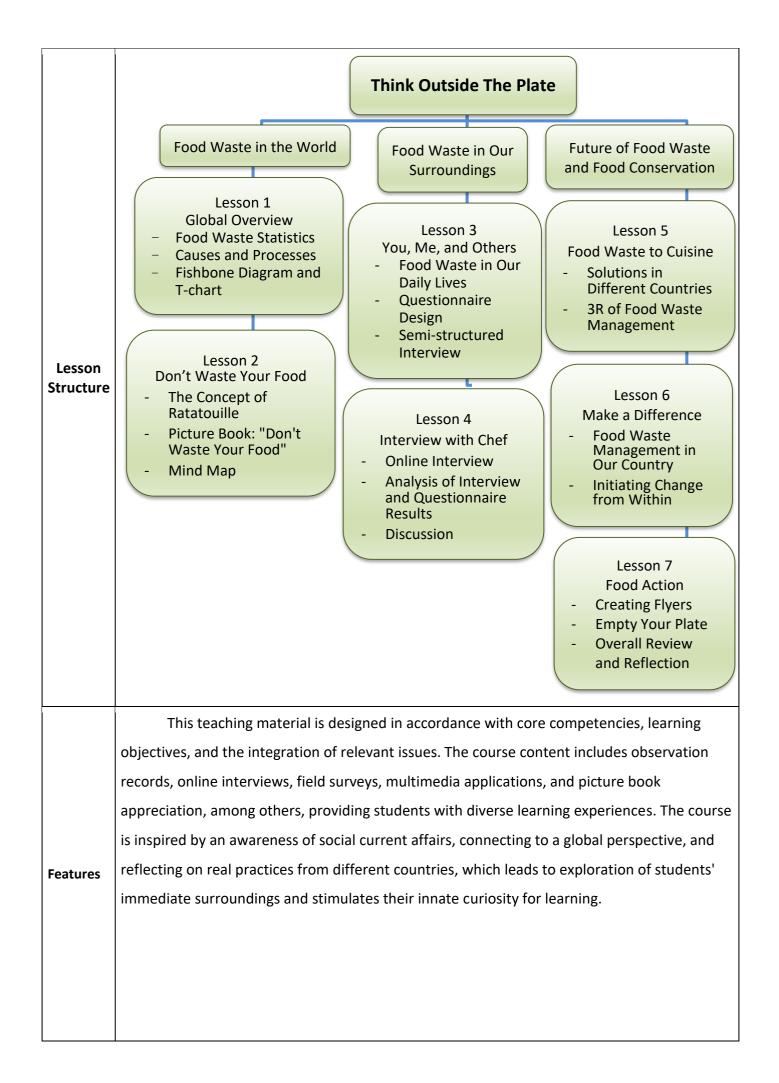
Junior High School English Independent Research Course - Integrated Lesson Plan <u>Think Outside the Plate</u>

I. Course Introduction:

Taiwanese cuisine is world-renowned, but it is also a place with the highest amount of food waste globally. There are many reasons for food waste, such as the Taiwanese people's habit of having a wide variety of easily accessible food without a sense of appreciation. It could also be due to the pursuit of exquisite flavors, where people are not interested in food that doesn't taste good enough and end up wasting it. Unconscious habits of overbuying during shopping could also contribute. So, which is the main cause of food waste in daily life? Are there any other food waste phenomena or reasons that we haven't noticed? This lesson aims to raise questions and engage in discussions, awakening students' awareness of food waste and fostering a sense of cherishing food.

To the
UserIn terms of content, this lesson will enable students to understand the current state of global
food waste, observe and examine the food flow in their own lives, and establish an awareness
of cherishing leftovers through thinking, exploring, and brainstorming possible solutions. It
also encourages students to take practical actions in the future to contribute to the
sustainable development of the planet.

As for the objectives, this lesson focuses on the United Nations Sustainable Development Goals (SDGs), specifically SDG 2 "Zero Hunger" and SDG 12 "Responsible Consumption and Production," while incorporating social aspects (citizenship responsibilities) and considering environmental and international perspectives. The goal is to enhance students' attention to global issues, develop a sense of responsible consumption, and integrate it into their daily lives.



II. Course Plan

Course Name	Think Ou	utside the Plate				
Studen ts	🗆 7 th Grade	e 📕 8 th Grade 📕 9 th Grade	Designer	李依純,吳雪華,高桂懷		
Total Time	7 Periods (4	5 mins each, 315 mins in total)	Time of Design	111. 10 ~ 112.05		
	特獨-J-A2	提出適切的探究問題,依據習得 問題解決模式,並實際驗證及解		J立思考與分析,提出可能的		
	創-E-A2	具備蒐集不同資料來源的能力與各種方式提出多種解決問題的構		2順序與設定選擇標準。善用		
核心	創-J-B1	具備運用創意指標的習慣與方法 可能性,主動與他人分享、表達 會需求。	,考量實用價值			
素養	特情-J-C1	曾而小。 具備社會責任感,關懷他人與社 服務的善行。	會需求,關注社	會的關聯,展現社會參與及		
	英 J A1	具備積極主動的學習態度,將 種學習與溝通策略,精進英語文				
	英 J A2	具備系統性理解與推演的能力, 由訊息的比較,對國內外文化的				
	特創 B-Ⅱ-	3 魚骨圖技巧。				
ধার নয	特創 D-V-8 國際性問題之未來創意解決。 特創 3b-IV-4 跳脫慣性思考,以不同角度解決問題。					
學習 表現	特獨 1a-IV-4 透過獨立研究過程,了解獨立研究的意義、歷程及實踐的重要價值。					
	特獨 2b-∏	7-3 知道自己及他人所觀察、記錄 其中的關聯性。	或蒐集資料所得	的現象、實驗數據,並推論		
	特獨 1a-Ⅳ	7-1從日常生活經驗、自然環境觀	察、領域學習課	程、新聞時事或社會重大議		
	題等向度發現並提出自己感興趣的內容。					
學習 表現	特獨 1b-Ⅲ-3 與同儕合作完成小組獨立研究活動內容並達成目標。					
衣坑	特獨 2b-IV-1 將蒐集的數據或資料,加以分析、比較,提出關聯與差異。 英*3-IV-12 能熟悉重要的閱讀技巧如擷取大意、猜測字義、推敲文意、預測後續文意 及情節發展等。					

學習	英 4-Ⅳ-4 能依提示填寫簡單的表格。
表現	英 9-IV-2 能把二至三項訊息加以比較、歸類、排序。
	特創 B-Ⅱ-3 魚骨圖技巧。
	特創 D-V-8 國際性問題之未來創意解決。
學習	特獨 C-IV-5 研究資料蒐集方式:文件/紀錄分析。
內容	英 B-IV- 8 引導式討論。
	英 D-IV-2 二至三項 訊息的比較、 歸 類、排序的方法。
	一、認知目標:
	1. 認識剩食的定義、現今概況、原因與影響。
	2. 閱讀英文繪本「Don't Waste Your Food」,並以心智圖整理出文章架構。
	3. 認識六頂帽子思考法,並用以探討減少食物浪費的可能解決方法。
	4. 能認識國內外對減少食物浪費的積極作為,進而發想出更多珍惜食物的方法。
單元	5. 認識問卷的撰寫方式。並在實施後分析與討論所得結果。
中 儿 目標	二、情意目標:
	1. 觀察並關懷世界與生活周遭的食物議題。
	2. 能與他人充分討論與合作。
	3. 願意為改善現況付出心力與實際行動。
	三、技能目標:
	1. 能用英文簡述食物浪費的現況、造成原因及解決方式。
	2. 能用製作問卷、實施英文訪談,並歸納整理且簡單分析所得結果。
	3. 能用英文呈現所討論出的惜食行動。

	組別	劇作家 (Shakespeare)	科學家 (Einstein)
區分性教	內容	以第七節課為例 口說倡議及平面宣傳單	以第五節課為例 1. 觀看三部丹麥如何處理剩 食的影片。
學之調整	過程	 學生設計問卷、半結構式訪 談、口說倡議宣傳稿,及平 面宣傳單等各項內容。 教師提供口說稿範例,然後 進行段落教學。最後請學生 創作或仿寫擇一。 教師提供平面宣傳範例,然 後講解傳單元素,再請學生 以個人或小組擇一方式製作 宣傳單。 	 教師提供問卷、半結構式 訪談、口說倡議宣傳稿, 及平面宣傳單等各項內容 的範例,並協助分析問卷 數據。 教師可依據學生的優勢, 指定觀看不同長度的影 片。 學生可依據自己完成任務 的速度,自行決定要觀看 1、2、或3部線上影片。
	成果	 依據學生個性特質產出的口 說稿在朝會上台發表,入班 小型宣導或發放張貼平面宣 傳單擇一。 	 學生依據觀看影片的數量 及內容,完成對應的 Padlet筆記。
冬 考 資料	 2. 教育部國民及書 生語文領域(英 3. 十二年國民基書 -英語文領綱 4. 十二年國民基書 	展目標(Sustainable Development Go 學前教育署十二年國民基本教育課 語文)課程調整應用手冊 本教育課程綱要國民中小學暨普通 本教育資賦優異相關之特殊需求領 本教育特殊教育課程實施規範	程綱要_學習功能優異(資賦優異)學 型高級中等學校語文領域

III. Lesson Plan

The First Period	Time	Assess ment	Note
 I. Warm Up 1. T shows before and after pictures of students' lunch the day before and a food-hunting picture of a youtuber. 2. T asks Ss of their ideas about the picture and the clip. Ss write down their relationship with food on the worksheet (part 1-1). II. Development Activities T asks three questions related to the clip. (How many percent of food has be wasted or lost? What are the most 	2 4 3 5 10	Work sheet 1-1	PPT 1-25
 wasted items? How many percent of food is edible?) 2. Ss watch a clip: <u>https://www.youtube.com/watch?v=9s1rDcdhECA</u> 3. T checks answers to the eight questions on the worksheet (part 1-2) and makes sure Ss understand the content of the clip. 4. T explains the differences between "food waste" and "food loss". Ss give their own definition of food waste in the project (part 1-3). 5. T shows some food waste statistics and help Ss summarize the information. 6. T explains the fish-bone diagram and helps Ss summarize the causes. (part 1-4) 	7 4 5	Oral	
 III. Wrap Up 1. Ss share feelings or thoughts about food waste with a T-chart. 2. T assigns homework—guide Ss how to finish the worksheet about food waste and think about possible solutions. 3. Teacher Introduction to Questionnaire Content for Lesson 3 (Worksheet 1-3, 1-4), followed by Guiding Students in Discussing Target Retailers and Assigning Distribution Schedule. 	3	Work sheet	

The Second Period	Time	Assess ment	Note
I. Warm Up			PPT
 T shows Ss a picture of "ratatouille" and asks Ss to guess about its ingredients to finish the first part of the worksheet. (part 2-1) Ss watch a clip from the movie "Ratatouille", and then check the ingredients. 	2 5	Work sheet	26-45
II. Development Activities	1		
 T shows Ss the picture book "Don't Waste Your Food" and invites Ss to guess from the cover what might be mentioned in the book. 	2 10	Work sheet	
2. T gives a worksheet and explains it (part 2-2).	10	Ques-	
 Ss take turns to read out "Don't Waste Your Food". T helps Ss comprehend the picture book. 		tions	
4. T uses the clip of edpuzzle to comprehend the picture book	5	Recital	
https://edpuzzle.com/media/6436490f946b114349d77d92	5		
 T introduce mind-mapping <u>https://www.youtube.com/watch?v=wLWV0XN7K1g</u> 	10	Work sheet	
T leads Ss to make a mind-map (part 2-3)			
III. Wrap Up	2		
1. Ss summarize what is learned in this class.	3		
2. T asks Ss what they can do to decrease food waste.			

The Third Period	Time	Assess ment	Note
I. Warm up: Students share their experiences regarding common practices by businesses in handling leftover food.	2		PPT 46-61
 II. Development Activity A. Questionnaire 1. The teacher presents a briefing on questionnaire design using a video, 	15 5	Work- sheet	
explaining the steps and principles of designing a questionnaire.2. Students, with the guidance of the teacher and using Worksheet 3-1, review and check the questionnaires distributed in the first lesson.3. Students watch the questionnaire design video to deepen their	3	Discuss ion	
understanding. Video link: https://www.youtube.com/watch?v=mdVWbuffdNY 4. Students make modifications to the questionnaire. B. Semi-structured Interviews	3		
 The teacher explains the process and principles of conducting semi- structured interviews. The teacher explains the focus of the interviews for this session. 	10		
3. Students discuss and complete the question design (Worksheet 3-2).4. Students are assigned tasks for conducting the interviews.III. Integrated ActivityThe teacher and students confirm the equipment and interview	2		
questionnaires for conducting online interviews.			

The Fourth Period	Time	Assess ment	Note
I. Warm Up The teacher guides the students to reconfirm their interview preparations	1		РРТ
(equipment, interview process, etc.).			62-66
II. Development Activity		Inter-	
A. Teacher Explanation and Reminder	1	view	
B. The teacher explains and reminds the students of the skills and		VICW	
precautions for conducting interviews.	15	Work-	
C. Student Activities	20	Sheet	
1. Students conduct online interviews.	5	4 4 4 4 2	
2. Students record and analyze the results of the interviews and		4-1~4-3	
questionnaires.			
3. Students discuss and compare the results of the interviews and			
questionnaire surveys.	2		
	1		
III. Integrated Activity			
1. Students share their observations, findings, and reflections on the			
surveys and interviews conducted during these two sessions.			
2. The teacher provides feedback and summarizes the findings.			

The Fifth Period	Time	Asses sment	Note
I. Warm Up			PPT
A. Matching & ranking	3		67-97
1. T reviews the definition of the three roles in the food supply chain and has Ss write a match-up on the worksheet.			
2 T has Ss rank the three roles based on their contribution to the food waste from the highest to the lowest and choose one to explain the reason(s).			
II. Development Activities	7		
A. Watch a clip			
1. T asks two previewing questions –			
Q1: What does "food plus" mean in the clip?		oral	
Q2: Will you go for a meal in that kind of restaurant? Why or why not?			
2. Ss watch a clip about food rescue in the Netherlands.			
(https://www.youtube.com/watch?v=bW6LUCmKgn4)	15		
3. T checks the answer to the question.			
B. Padlet			
1 Each student watches one clip (scans the QR code). Summarize in			
bullet points on the Padlet:			
Is it possible or are there any similar examples in Taiwan? (DI tasks)	5		
(1) Denmark's Food Waste Vigilante (3'31'')		note-	
(2) Too good to go (2'57'').	1	taking	
(3) Solving food waste (1'42')			
2 T checks the notes on the Padlet. Each student introduces what			
Denmark has done for food waste in the clip or looks over the notes	1		
one another.			
C. T introduces what the UK has done about food waste.			
1. The Real Junk Food Project café	2		
2. Bio-bus			
D. T introduces what the USA has done about food waste.			
1. How the ugly produces do in repechage (Make taste, not waste)			
E. T introduces what Japan has done about food waste.	1		
1. No foodloss project			
2. Second harvest			
F. T introduces what Korea has done about food waste.	2		

1	. Pay-as-you-throw system						
2. The yellow waste bags							
G. 1	introduces what Spain, France and Italy have done about the food						
	waste.						
1		8					
2	Waste disposal tax breaks in Italy						
III. W	rap Up						
А.	T introduces the meanings of 3R-redistribute, recreate and recycle.						
B.	T delivers Ss the pictures together with three 3R cards.						
C.	T asks Ss to classify the pics into the correspondent 3R and checks the answers to the classification.						
D.	T discusses their wrong answer(s) with Ss if necessary.		works				
E.	T concludes what has been taught/learned in today's class.		heet				
F.	Assignment: part II on the worksheet		5-1				
		l					

The Sixth Period	Time	Asses sment	Note
I. Warm Up			
A. T asks Ss to odd out one picture different from the others and explain	3		
why. B. T chooses 1-2 Ss to share their thinking.			
II. Development Activities			
A. T asks each S to read an article on the website(https://reurl.cc/V8jYjR)			
and highlight the key words in each paragraph.	10		
B. T concludes the steps of how to put surplus food into good use.			
C. T introduces the best choices to put surplus food into good use are	3		
source reduction and feeding people.			
D. T introduces the function of the food banks in Taiwan.			
1 No waste no hunger	7		
2 Tasteme.app			
E. T asks Ss to think about what else can be done in daily life.			
1 T asks Ss "Does food waste happen to them in three cases?"		work	
2 T randomly chooses one student to share his/her experience in any case.	5	-sheet	
3 T leads Ss to think about how to take action to reduce food			
waste in daily life.	5		
4 T introduces Six Thinking Hat and asks Ss to play in the role of	5		
yellow hat and green hat.	2		
5 Ss brainstorm as many ideas as possible and write the ideas	2		
down on the Padlet.	5		
F. T checks the ideas on the Padlet and discusses with Ss.	5		
F. I checks the ideas on the Fadiet and discusses with 5s.			
III. Wrap Up			
A. T leads Ss to integrate the ideas on the Padlet into four dimensions.			
B. T concludes what today's lesson is.	5		
	1	<u>I</u>	

The Seventh Period	Time	Asses sment	Note
I. Warm Up			PPT
A. Spectrum	5		120-
1. T asks Ss to read a question			133
2. Ss mark his/her answer to the question the spectrum			
3. T asks Ss to explain the reason(s) of the answer.		Oral Presen	
II. Development Activities		tation	
A. My Action: group work & individual work			
1. Promotion by making a leaflet (hard copy advertising)	20		
(1) Ss review their ideas brainstormed on the Padlet in the last class.			
(2) T asks Ss to make a leaflet and explains the example			
(3) Ss have to make a leaflet by group work.			
2. Promotion by an oral invitation (oral promotion)			
(1) T explains what the task is- to write a passage about inviting different members to join the Line Group.	10		
(2) T explains how to write a passage in a hamburger structure.			
(3) Ss make a presentation to share their work.	_		
III. Wrap Up	5		
A. Ss share their changes before and after the classes.			
B. T gives feedback.			
C. T wraps up the courses and encourages Ss to keep fitting in the attitude of	5		
cherishing food in daily life and even have influence over the others around.			

IV • Afterthoughts and Suggestions

This lesson plan is rich and extensive in terms of teaching content, allowing teachers to flexibly utilize it based on students' abilities and needs. However, some parts of the lesson may be too complex and challenging for students, so it is recommended for teachers to make appropriate adjustments. For example, providing more specific examples, offering relevant scaffolding support, or modifying the difficulty level of activities to ensure better comprehension and application by students.

Additionally, conducting online interviews with restaurant owners in the United States, who are friends of the lesson plan designer, adds an English language component to the lesson. Teachers can explore other resources or alternative methods to achieve similar outcomes. As for the questionnaire in the lesson plan, considering that data analysis will be done in the fourth session, it is suggested to have students distribute the teacher-prepared questionnaire in the first session and have them review it in the third session, rather than having students design their own questionnaire. Teachers who adopt this lesson plan can also make adjustments and arrangements based on the course schedule.

Moreover, this lesson plan emphasizes student agency and encourages them to share ideas and present their findings. This is an important design principle for gifted students as it can stimulate their engagement and active learning. Therefore, it is recommended for teachers to provide opportunities for students to share their perspectives and achievements and encourage them to further develop their abilities in expression and critical thinking.

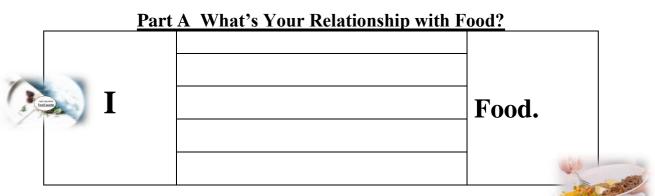
The lesson plan also includes a section for brainstorming and practical application, allowing students to extend the lesson based on their own creativity. In implementing the seventh session of this lesson plan, the original plan involved inviting different partners to join a Line group and gradually promoting Clean Plate Wednesday by integrating relevant school clubs through English writing and speaking exercises. However, considering students' concerns about the difficulty of implementing and managing Line groups, and after evaluating the school's situation, it was adjusted to promote "Clean Plate Wednesday" to all students in the school during assemblies using the English language. Bilingual flyers were distributed and posted on bulletin boards in each class. Collaboration with the school's hygiene committee was established to broadcast silent reminders through the televisions in each classroom every Wednesday, encouraging everyone to participate in the activity of reducing food waste. Personal verbal promotion was adjusted to target the principal, head teacher, group leaders, and English teachers. In other words, teachers can make individual adjustments based on the school's context and student characteristics, allowing students to generate creative ideas.

In conclusion, this lesson plan aligns with real-life situations and incorporates multiple dimensions of curriculum design, encompassing knowledge, skills, and attitudes. It aims to assist teachers in effectively implementing the lesson plan according to their specific school and class circumstances, while also raising awareness among more students about the importance of reducing food waste and contributing to global sustainable development.

IV. Appendix

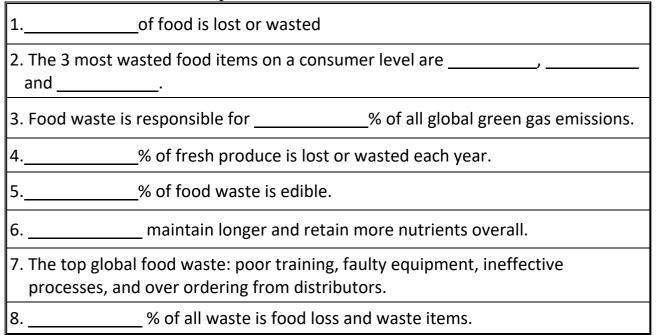
Appendix includes worksheet of this course.

Think Outside the Plate



Part B Questions about the clip

Top Food Waste Statistics of 2022



Part C My own definition of food waste

Part D Difference between food waste and food loss

Food Wastage						
Food loss Food waste						
	hap	pens at				

Food waste

<u>Part F</u>

T-chart

What do you want to learn about food waste?

What have you learned about food waste?

worksheet 1-3

您好:

我們是東興國中英語資優班八年級的學生。我們正在做一個有關店家如何處理剩 餘食物的報告。在此需要您協助填寫以下問卷。

「剩餘食物」指的是「完全未食用或未食用完畢即被丟棄的食物。包含吃剩的廚餘,或是在食物運送、烹飪、銷售過程中,因碰撞、份量過多或逾期等因素造成的浪費。」

本問卷不公開、不外流,我們也將妥善保護您的資料與意見。誠摯感謝您填寫本 問卷。敬祝生意興隆。

東興國中英語資優班

1.	請問您的店屬於以下哪一個類型?
	□便利商店/熟食 □超市/賣場 □ 餐飲業者
2.	請問您的店裡最多剩餘食物的類別是什麼?
3.	請問您店裡的剩餘食物是否有造成您的困擾?
	□有,非常困擾。 □有,還可以接受。 □完全沒有困擾
4.	請問造成您店裡剩餘食物最主要的原因是什麼?
	□生意不佳 □外觀破損 □超過保存期限 □進貨過多
	□消費者未食用完畢 □製造過程中的生廚餘 □其他
5.	請問您的管理單位或政府單位有規定如何處理剩食嗎?
	□沒有 □有,規定是
6.	請問您店裡都如何處理剩餘食物?(可複選)
	□灵心待用餐 □丢廚餘桶 □退回供應商 □養狗或堆肥
	□赠送他人或員工食用 □製作成另一道菜或商品
	□委外處理,每月費用約元 □其他
7.	請問您店裡有試過採用什麼方法減少剩餘食物嗎?(可複選)
	□完全沒有 □打折促銷 □送給別人 □减少分量
	□ 鼓勵客人打包 □備貨時準備少一點 □其他
8.	請問會讓您更進一步考量減少剩餘食物的原因是什麼?(可複選)
	□减少成本浪費 □更环保 □处理剩食很麻烦
	□認為應該要珍惜食物
9.	請問您有聽過"惜食平台 Tasteme" 之類的剩餘食物分享單位(或 app)嗎?
	□沒有聽過,但會想了解 □沒有聽過, 也不會想了解
	□有,加入的是 □有聽過,會想加入
	□其他

本問卷到此結束。感謝您的協助!

東興國 -英語資優班 111.04.12

沃 即被 恣貝 × 艍 FH 料與意 素造成的浪 要您協助填寫 在 一段ー 烹飪、銷 . 丟棄的食物。包含吃剩的廚餘,或是在食物運 我們是 剩餘食物」 面 東興 庆 唐月 鲁 UNU NU 。 ட 問悉 逻 過程中、 宝 指的是 家如何處理剩餘食物的報告。 -0-英語資優班八年級的學生 0 因碰撞、份量過多或逾期 「完全未食用 追 未食 用

方 QR cod,並填寫問卷。敬祝生意興隆 本問卷不公開、不外流,我們也將妥善保護您的 見。誠挚感謝您願意在 4/17(一)之前掃描下

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我們 **卒** 元

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送 即被 × 艍 FH 素造成的浪費 要 存 烹飪、銷 您協助填寫 做一個有 我們 **丢棄的食物。包含吃剩的廚餘,或是在食物運** 剩餘食物」指的是 至 東興 鲁 CHU THU 。 ∟ 問悉 過程中, 먼 逆 家如何處理剩餘食物的報告 ₽ 英語資優班八年級的學生 0 因碰撞、份量過多 ٦ 送予 ·未食用 近本 或逾期 刻 0 用 0 我們 在元 完 著 畫

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よ QR cod,並填寫問卷。敬祝生意興隆 料與意見。誠摯感謝您願意在 4/17(一)之前掃描下 本問卷不公開、不外流,我們也將妥善保護您 0 出

资具



刺餘食物處理方式之調 百

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|餘食物處理方式之調

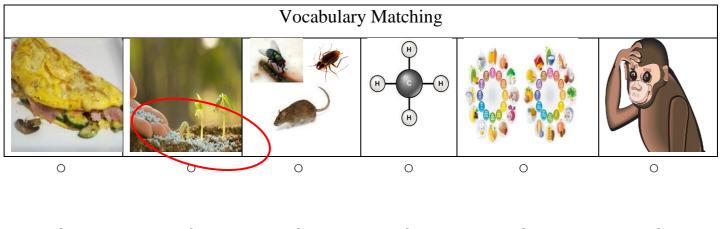
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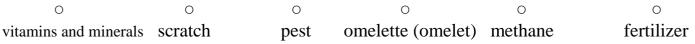
Class____Name _____

Part A Ratatouille

Possible Main Ingredients								
			Ô					
() squashes	() ham	() tomatoes	() eggplants	() bell peppers	() boiled eggs			
squashes	IIaIII	tomatoes	eggpiants	ben peppers	bolleu eggs			

Part B Don't Waste Your Food





Part C Mind-mapping of Don't Waste Your Food



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7-2	7-1	6-2	6-1	л	4	ω	2	4	ltem	學習單 3-1
Analyze Date	Collect Date	Refine the Test	Pilot the Test	Format and Organization	Question Content	Question Type	Respondent	Topic	Content	
				 Standard Features Title Introduction Contact Info Thanks Sequence of questions Consistency of Terminology Types of Questions Easy language clear language Font Overall Format 	 Number of questions() Suitable tone and wording Double-barreled question Leading question 	 Open Question() Agreement Scale() Ranked Response() Multiple choice() Others() 	Correspond with Research	Correspond with Research	Evaluation	Questionnaire Evaluation
Good	Good	Good	Good	Good	Good	Good	Good	Good		ion
🗌 Fair	🗌 Fair	🗌 Fair	🗌 Fair	Fair	🗌 Fair	Eair	Eair	🗌 Fair	Evaluation	
Dev Poor	Deven	D Poor	Deven	Poor	D Poor	Poor	Poor	Poor		Your Name:
									Suggestions	me:

Your Name:_

Interview Protocol

Conclusion	Interview questions	Introduction	Sequence
			Content
			Name

學習單 3-2

學習單 4-2

Questionnaire Results and Findings

]	-		
No.	Question	Result	Finding
1	Store name	deleted	
2	Store type	 () convenient store(s) () supermarket(s) () restaurant(s) 	
ω	What left?	1.() 2.() 3.()	
4	Confused?	() very confused () Ok () not at all	
л	reason	1.() 2.() 3.()	
6	Regulations? (laws)	() no () yes	
7	How to reduce?	1.() 2.() 3.()	
∞	Ways to reduce	1.() 2.() 3.()	
9	motivation	1.() 2.() 3.()	
10	App?		

學習單 4-1

Your Name:

Interview Results and Findings



My Thoughts



Class: No.: Name:

Worksheet (Class 5)

I. Matching

Producer	•		the different ways used by a company to sell and distribute its products or services to its customers.
Sales channel	•	•	a person, company, or country that makes, grows, or supplies for sale.
Consumer	•		a person who purchases goods and services for personal use.

⅔ Write down the term matching the pictures



II. Write down what you can do to put 3R in practice in your daily life

