

МЕТОДИЧНІ РЕКОМЕНДАЦІЇ ДО ОРГАНІЗАЦІЇ

САМОСТІЙНОЇ РОБОТИ
Обов'язкової освітньої компоненти

Іноземна мова за професійним спрямуванням

для підготовки здобувачів
першого (бакалаврського) рівня вищої освіти

Галузь знань
Спеціальність
Предметна спеціальність
Освітня програма
Факультет

A Освіта
A4 Середня освіта
A4.08 Середня освіта (Фізика та астрономія)
Середня освіта (Фізика та астрономія)
фізико-математичний

Укладачі: викладач Діана Дяченко
Розглянуто та схвалено на засіданні кафедри
іноземних мов і новітніх технологій навчання
Протокол від «15» червня 2026 р. № 14
Завідувач кафедри Тамара ЛИТНЬОВА

УДК 81'243:53:378.22(072)

М 52

Рекомендовано до друку рішенням вченої ради Житомирського державного університету імені Івана Франка (протокол № 12 від 26 червня 2026 року)

Рецензенти:

Ольга ДЄНІЧЄВА – кандидат педагогічних наук, доцент, доцент кафедри теоретичної та прикладної лінгвістики Державного університету “Житомирська політехніка”.

Світлана ХМЕЛІВСЬКА – кандидат педагогічних наук, доцент кафедри іноземних мов Поліського національного університету.

Марина ПОЛХОВСЬКА – кандидат філологічних наук, доцент, директор навчально-наукового інституту іноземної філології Житомирського державного університету імені Івана Франка.

Методичні рекомендації до організації самостійної роботи з обов’язкової освітньої компоненти «Іноземна мова за професійним спрямуванням» для підготовки здобувачів першого (бакалаврського) рівня вищої освіти освітньої програми Середня освіта (Фізика та астрономія) / Укладач: Д.В. Дяченко. Житомир: вид-во Житомирського державного університету імені Івана Франка, 2026. – 41 с.

У методичних рекомендаціях викладено мету, завдання та зміст вивчення дисципліни, вказано основні види навчальної діяльності під час організації самостійної роботи з курсу «Іноземна мова за професійним спрямуванням». Методичні рекомендації призначені для здобувачів першого (бакалаврського) рівня вищої освіти освітньої програми Середня освіта (Фізика та астрономія).

© Діана Дяченко, 2026

© Житомирський державний університет імені Івана Франка, 2026

ЗМІСТ

Вступ.....	4
Опис освітньої компоненти.....	5
Структура освітньої компоненти.....	7
Специфіка оцінювання здобувачів з курсу «Іноземна мова за професійним спрямуванням».....	8
Методичні рекомендації до організації самостійної роботи з освітньої компоненти «іноземна мова за професійним спрямуванням».....	10
Завдання для самостійної роботи Модуль I. Making Contacts.....	12
Модуль II. Global Issues.....	26
Рекомендована література.....	41

ВСТУП

Програма вивчення освітньої компоненти “Іноземна мова за професійним спрямуванням” для підготовки здобувачів першого (бакалаврського) рівня вищої освіти відповідає освітньо-професійній програмі «Середня освіта (Фізика та астрономія)».

Предмет вивчення освітньої компоненти – “Іноземна мова за професійним спрямуванням” – необхідний обсяг лексики та граматики, що дає можливість студентам спілкуватися на важливі побутові теми та теми, які стосуються фаху, опрацьовувати джерела англійською мовою на професійно спрямовану тематику.

Мета вивчення освітньої компоненти: формувати загальні та професійно орієнтовані комунікативні компетенції; формувати навички практичного володіння іноземною мовою в різних видах мовленнєвої діяльності в обсязі представленої тематики; розвивати стратегії самостійного вивчення мови; сприяти розвитку іншомовної підготовки студентів для забезпечення ефективного спілкування в академічному та професійному середовищі.

Основними завданнями вивчення освітньої компоненти є:

- удосконалення уміння практичного володіння іноземною мовою в різних видах мовленнєвої діяльності;
- здатність здобувати нові знання, уміння та навички комунікації іноземною мовою;
- оволодіння навичками аудіювання, говоріння, діалогічного мовлення, читання, письма та перекладу;
- удосконалення умінь вилучати, аналізувати й систематизувати, добирати і передавати фахову інформацію;
- здатність здобувачів ЗВО до міжкультурної комунікації в сферах професійного та ситуативного спілкування в усній та письмовій формах.

ОПИС ОСВІТНЬОЇ КОМПОНЕНТИ

Найменування показників	Галузь знань, спеціальність, ОПП / ОНП рівень вищої освіти	Характеристика освітньої компоненти	
		денна форма	заочна форма
Кількість кредитів – 5	А Освіта	Обов'язкова	
	A4 Середня освіта		
Модулів – 2	Середня освіта (Фізика та астрономія)	Рік підготовки:	
Загальна кількість годин – 150		I	
		Лекції	
Тижневих годин для денної форми навчання: аудиторних – 1,5; 1,4 самостійної роботи здобувача – 2,9; 3 год.	перший (бакалаврський)	-	-
		Практичні / Семінарські	
		50 год.	-
		Лабораторні	
		-	-
		Самостійна робота	
		100 год.	-
		Індивідуальна робота	
-	-		
		Вид контролю: залік, екзамен	

Освітня компонента «Іноземна мова за професійним спрямуванням» викладається на I курсі, в 1 та 2 семестрах.

На вивчення освітньої компоненти відводиться 150 годин 5,0 кредитів ECTS, вид підсумкового контролю – залік, екзамен.

Вивчення освітньої компоненти передбачає формування таких компетентностей та програмних результатів навчання:

ЗК 3. Здатність спілкуватися державною мовою як усно, так і письмово, до комунікації іноземною мовою за предметною спеціальністю.

ЗК 5. Здатність діяти автономно, приймати обґрунтовані рішення у професійній діяльності і відповідати за їх виконання, діяти відповідально і свідомо на основі чинного законодавства та етичних міркувань (мотивів).

ЗК 6. Здатність до міжособистісної взаємодії та роботи у команді у сфері професійної діяльності, спілкування з представниками інших професійних груп різного рівня.

ФК1. Здатність перенесення системи наукових знань у професійну діяльність та в площину навчального предмету.

РН 8. Генерує обґрунтовані думки в галузі професійних знань як для фахівців, так і для широкого загалу державною та іноземною мовами.

СПЕЦИФІКА ОЦІНЮВАННЯ ЗДОБУВАЧІВ З КУРСУ «ІНОЗЕМНА МОВА ЗА ПРОФЕСІЙНИМ СПРЯМУВАННЯМ»

Оцінювання здобувачів вищої освіти здійснюється відповідно до «Положення про критерії та порядок оцінювання навчальних досягнень здобувачів вищої освіти Житомирського державного університету імені Івана Франка згідно з Європейською кредитною трансферно-накопичувальною системою» https://zu.edu.ua/offic/ocinjuvannya_zvo.pdf.

Оцінювання навчальних досягнень здобувачів вищої освіти за всіма видами навчальних робіт проводиться за поточним, модульним та підсумковим контролюми.

Шкала оцінювання знань здобувачів вищої освіти

Оцінка за університетською шкалою		Оцінка в балах	Оцінка за шкалою ECTS	
Екзамен	Залік		Оцінка	Пояснення
<i>Відмінно</i>	<i>Зараховано</i>	90-100	A	відмінне виконання лише з незначною кількістю помилок
<i>Добре</i>		82-89	B	вище середнього рівня з кількома помилками
		74-81	C	в цілому правильне виконання з певною кількістю суттєвих помилок
<i>Задовільно</i>		64-73	D	непогано, але зі значною кількістю недоліків
		60-63	E	виконання задовольняє мінімальним критеріям
<i>Незадовільно</i>	<i>Незараховано</i>	35-59	FX	з можливістю повторного складання
		1-34	F	з обов'язковим повторним курсом

Підсумкова оцінка з вивчених модулів за навчальний рік (ПОМ) розраховується:

№ модулю	M _{%n} (відсоткове значення модулю освітньої компоненти)
Модуль 1	M _{%1} = 50%
Модуль 2	M _{%2} = 50%
Сума	100

Оскільки формою підсумкового контролю освітньої компоненти є залік то залікова оцінка (ЗО) з освітньої компоненти дорівнює підсумковій оцінці з вивчених модулів (ПОМ).

$$ЗО = ПОМ$$

Оскільки формою підсумкового контролю освітньої компоненти є екзамен, то здобувачі вищої освіти в яких підсумкова оцінка з вивчених модулів (ПОМ) за семестр становить 60 і більше балів, мають право не складати екзамен. У такому разі підсумкова оцінка з вивчених модулів (ПОМ) = Екзаменаційній оцінці (ЕО) = Підсумковій оцінці (ПО).

$$ПОМ=ЕО=ПО$$

У випадку складання екзамену підсумкова оцінка (ПО) визначається як середнє арифметичне балів підсумкової оцінки з вивчених модулів (ПОМ) та екзаменаційної оцінки (ЕО).

$$ПО=(ПОМ+ЕО)/2$$

МЕТОДИЧНІ РЕКОМЕНДАЦІЇ ДО ОРГАНІЗАЦІЇ САМОСТІЙНОЇ РОБОТИ

Пояснювальна записка

Самостійна робота є важливою складовою частиною і основою підготовки майбутнього фахівця, оскільки мета самонавчання – опанувати засвоєння навчального матеріалу на практичних заняттях. Реалізація такої мети на практиці сприяє розв'язанню завдань інтеграції – повному злиттю навчання і виховання, здійсненню принципу розвиваючого навчання, формуванню особистості майбутнього фахівця. Самостійна робота з іноземної мови фахового спрямування вирішує такі завдання: удосконалення знань, навичок і вмінь набутих на практичних заняттях; розширення світогляду студентів; розвиток творчих здібностей та самостійності.

Ефективність навчальної діяльності залежить від готовності студента до самонавчання та його індивідуальних якостей. Здатність до самонавчання є однією з найважливіших передумов не тільки успішного оволодіння іноземною мовою, але й формування навичок самостійної діяльності взагалі. Лише готуючи здатну до самонавчання особистість можна зреалізувати модель менеджера-економіста нового типу, орієнтованого до умов інформаційного суспільства та широких міжнародних контактів. Центральною проблемою щодо організації самостійної роботи є проблема забезпечення високої внутрішньої мотивації до самостійного її опанування. Продуктивність самостійної роботи з іноземної мови фахового спрямування залежить від умов її організації: як мотивується навчально-пізнавальна діяльність студентів; як реалізується професійно-комунікативна компетенція студента; як здійснюється контроль його навчальних досягнень. Головним завданням, яке має вирішити самостійне навчання є формування навичок і вмінь самонавчання, необхідних для оволодіння іноземною мовою від висунутих конкретних цілей самостійної роботи.

Самостійна робота – це самостійна навчально-пізнавальна діяльність проблемного, творчого та практичного характеру. Самостійна робота базується на володінні студентами навичками та вміннями, набутими на практичних заняттях з іноземної мови, тому важливим є те, щоб студенти якнайповніше

використовували ці навички та вміння під час самостійної роботи. Метою проведення самостійних робіт є вдосконалення практичних вмінь та навичок, одержаних на аудиторних заняттях, а також формування вміння самостійно опановувати певні етапи засвоєння навчальної дії з наступним її опрацюванням на практичних заняттях. При виконанні практичних завдань доцільно використовувати підручники з граматики англійської мови для розширення теоретичної бази, а також інформаційні ресурси для розвитку лексичних навичок англійської мови. Кожна самостійна робота оцінюється в 100 балів і є складовою частиною модульного поточного контролю. Контроль кожної самостійної роботи проводиться в формі усного опитування (монологічне висловлювання, діалог, полілог, усний переклад, контрольне читання) та письмового контролю (диктант, твір, письмовий переклад, лексико-граматичний тест). Тематика та рівень складності самостійної роботи відповідають навчальній програмі курсу «Іноземна мова за професійним спрямуванням» для здобувачів вищої освіти освітньої програми Середня освіта (Фізика та астрономія).

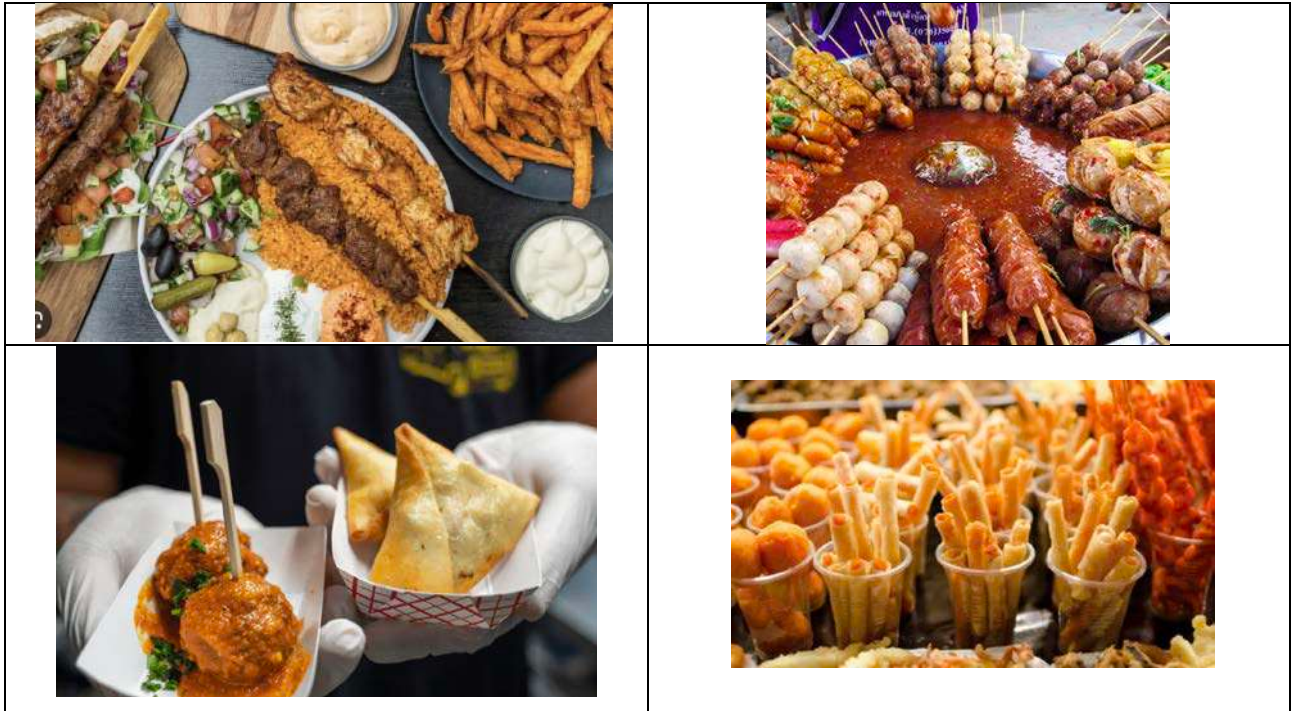
ЗАВДАННЯ ДЛЯ САМОСТІЙНОЇ РОБОТИ

Модуль I. Making Contacts.

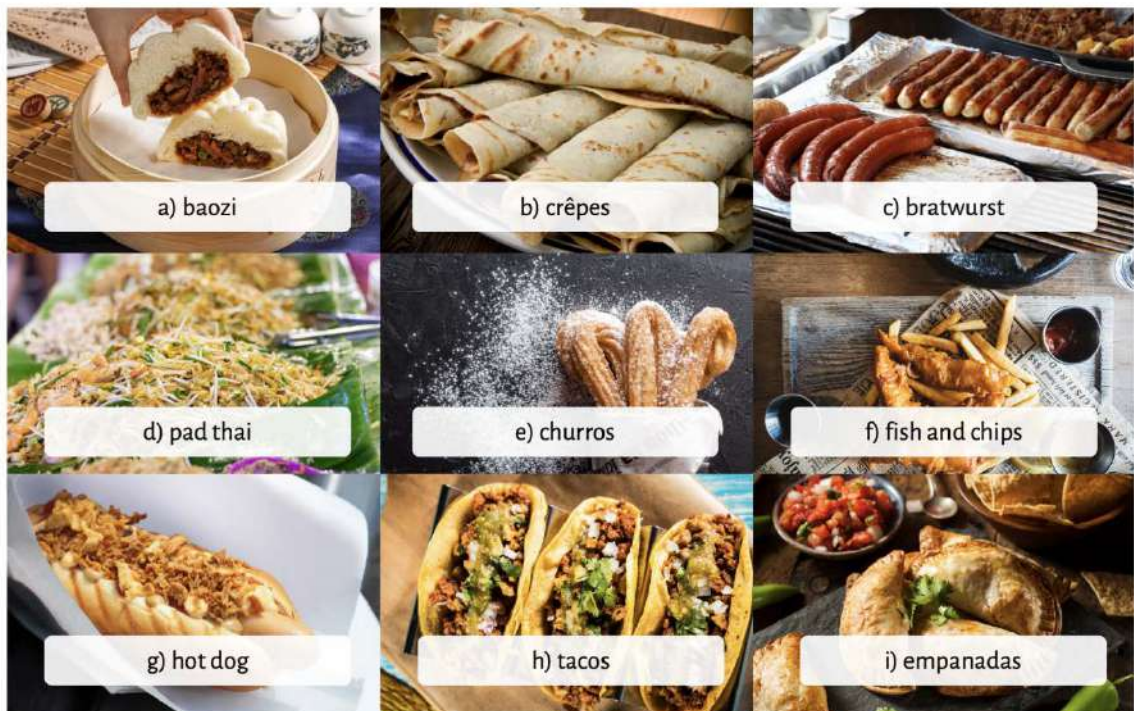
Тема 1. Mood Food.

Look at the images and answer the following questions.

1. Look at the photographs. Which food from the pictures would you like to try? Why?



Look at the photos below. Match each street food dish to its country.



1. Argentina _____
2. the United Kingdom _____
3. Thailand _____
4. France _____
5. China _____
6. Spain _____
7. Mexico _____
8. Germany _____
9. the USA _____

Unscramble the dishes and complete the sentences.

baozi	empanadas	tacos
hot dog	pad thai	bratwurst
churros	crepes	fish and chips

1. **oht ogds** _____ are sausages in a bun with ketchup or mustard, and they are popular in the USA.
2. In Mexico, **tcaso** _____ are a popular food made with small tortillas filled with meat, beans, and salsa.
3. A popular snack in China is **aozib** _____, steamed buns filled with meat or vegetables.
4. **dpa itah** _____ is a noodle dish from Thailand, often made with shrimp, chicken, or tofu and a special sauce.
5. **serpcê** _____ are thin pancakes from France that can be sweet with chocolate or savoury with cheese.
6. In Spain, people eat **rrschuo** _____, fried dough sticks often served with hot chocolate.
7. Filled with meat, cheese, or vegetables, **apasdamne** _____ are a favourite food in Argentina.
8. In Germany, you can try **tsabutrrw** _____, a grilled sausage served with bread and mustard.
9. A classic dish in the United Kingdom is **sifh nda cphsi** _____.

Choose a square. Answer the question. The first player to get 3 marks in a row (up, down, across, or diagonally) is the winner. Draw X or O.

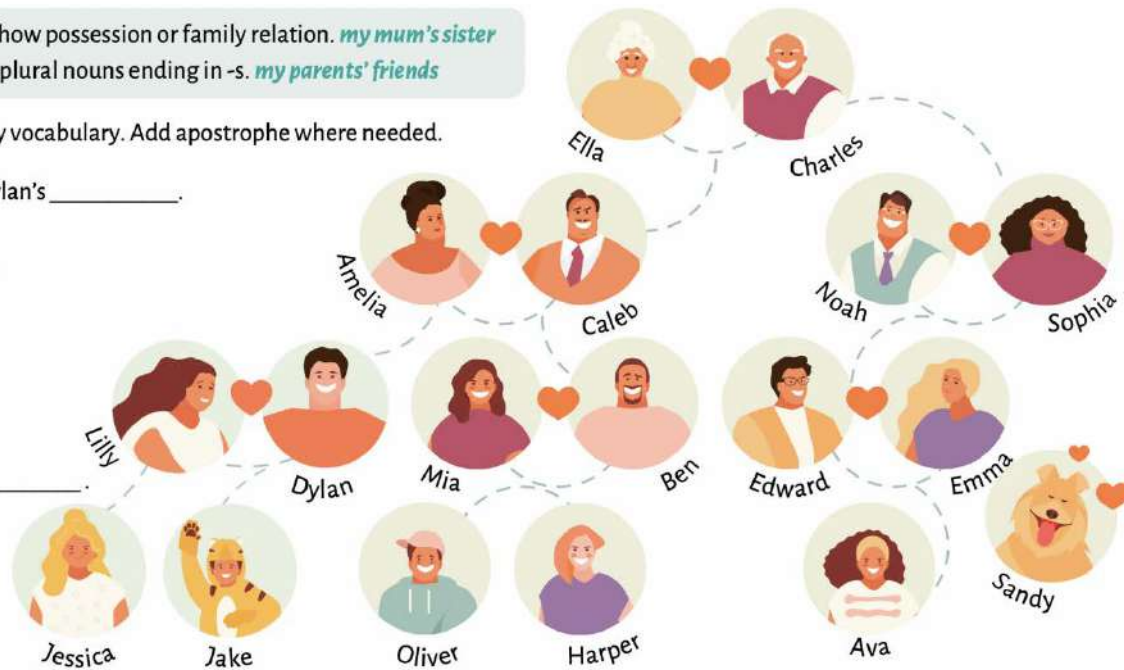
Would you like to try baozi filled with meat or vegetables?	Do you prefer eating noodles (like pad thai) with chopsticks or a fork? Why?	Would you eat fish and chips with some sauce or with nothing?
What street food would you like to try the most: churros, tacos, or crêpes? Why?	Is it better to eat street food standing up or sitting down? Why?	Would you eat crêpes with chocolate, fruit, or just sugar?
Do you think street food is healthy or not? Why?	Which is your favourite: sweet street food like crêpes and churros, or salty food like bratwurst and tacos?	Do you think street food is better than restaurant food? Why?

Tema 2. Family Life.

We add 's to a name or noun to show possession or family relation. *my mum's sister*
 We just add an apostrophe (') to plural nouns ending in -s. *my parents' friends*

Complete the sentences with family vocabulary. Add apostrophe where needed.

- Ella is Caleb's _____ and Dylan's _____.
- Mia is Ben _____.
- Edward is Emma _____.
- Sophia is Ava's _____.
- Dylan and Ben are _____.
- Amelia is Jessica's _____.
- Oliver is Dylan _____.
- Caleb is Edward _____.
- Jake and Jessica are Harper's _____.
- Jessica is Ben's _____.
- Noah is Edward _____.
- Ava is Emma _____.
- Oliver is Ben _____.
- Sophia is Dylan's _____.



Complete the sentences with the correct possessive form of the word in parentheses.

- _____ dress is beautiful. (My aunt)
- That is _____ car in the driveway. (our neighbours)
- _____ cat is very playful. (Emily)
- _____ backpack is the blue one. (My cousin)
- I am going to _____ wedding next month. (my friends)
- These are _____ favourite movies. (my grandparents)
- _____ eyes are green. (Her mum)

8. _____ hat is on the table. (My uncle)
9. We are visiting _____ house this weekend. (our grandparents)
10. This is _____ mum. (Sara)
11. These are _____ children. (the Johnsons)
12. That is _____ dog. (my friend)
13. _____ birthday is tomorrow. (My sister)
14. These are _____ toys. (the kids)
15. _____ house is very big. (My parents)
16. Those are _____ new shoes. (my brothers)
17. _____ cake was delicious! (My grandma)
18. _____ new school is really big. (Her son)

Prepare 5 rules of your future family and explain why it is important.

Tema 3. Money. Spend or Save.

Answer the following questions:

1. What do you usually spend your money on? Do you prefer to save money or spend it? Why?
2. What is something you bought recently that made you happy?
3. Do you think it's important to give money to charity? Why or why not?

Read Maria's story and underline all the verbs related to money. *if the word repeats underline it only once.

To Save or To Spend? An Expert's Guide.

Let's face it: we've all wondered whether we should save or spend our money. It's a decision that can be tricky, but with a little guidance, you can find the right balance.

Meet Maria, a 22-year-old student who has just started her first job. Every month, she earns £1,500. This is an exciting time for Maria - finally, she has her own money to manage! But she's also unsure. Should she spend her money on the things she loves, or should she save it for the future?

Maria enjoys buying new clothes, treating herself to a nice cup of coffee, and sometimes even going out with friends. It feels good to spend money. However, as a budget expert, I can't help but echo the wise words of Maria's mother: "You should save some money for the future". After all, those rainy days are going to come.

So, Maria decides to take control and make a budget. She plans to spend £1,000 on essentials like rent, food, and transport. Then, she saves £200 in her bank account. The remaining £300? That's her fun money - she can use it for whatever she likes without feeling guilty. Maria feels confident about her plan. But then, her friend Alex suggests another idea. "Why not invest some of your money?" he says. Investing can

be a way to earn more money, but it's not without its risks. Maria is careful - she's heard stories of people losing money in investments. However, Alex reassures her, "You don't have to take big risks. Even a small investment can grow over time."

After thinking it over, Maria decides to save most of her money and invest a small portion. She knows that if she ever needs quick access to cash, she can always withdraw it from her savings or sell her investments.

Maria also learns something from her cousin Luis. Luis always tips well when he goes to a restaurant. It's how he shows thanks for good service. Inspired by Luis, Maria decides to start leaving a small tip when she eats out.

At the end of the month, Maria checks her finances. She's excited to see that she has saved £200, earned a little extra from her investment, and hasn't needed to borrow money from anyone. She's able to afford everything she needs and still enjoy some luxuries.

The main point? It's possible to save and spend wisely at the same time. By planning ahead, making thoughtful decisions, and being mindful of your spending, you can manage your money effectively - just like Maria. So, next time you're wondering, "Should I save or spend?" remember that with a smart approach, you can do both!

Match the words with their definitions.

1. save	4. manage	7. invest	10. sell	13. borrow
2. spend	5. buy	8. lose	11. tip	14. afford
3. earn	6. make a budget	9. withdraw	12. check ... finances	

a) to put money into a project, or to buy property, shares in a company, etc., hoping to make a profit or get an advantage _____

b) to keep something, especially money, for use in the future _____

c) to give something to someone else in return for money _____

d) to examine the money that a person or company has _____

e) to succeed in doing or dealing with something _____

f) to have something or someone taken away from you _____

g) to get or receive something from someone with the intention of giving it back _____

h) to receive money as payment for work that you do _____

i) to be able to buy or do something because you have enough money or time _____

j) to plan how much money you will spend on something _____

k) to give someone who has provided you with a service an extra amount of money to thank them _____

l) to give money as a payment for something _____

m) to get something by paying money for it _____

n) to take or move out or back, or to remove _____

Fill in the gaps with the correct words. Mind the grammar.

1. Maria wants to _____ £200 each month for her travels.
2. It's important to _____ your money wisely.
3. If you _____ too much, you might not have enough for important things.
4. Alex suggests Kate _____ some of her savings in a new business.
5. Before shopping, Jessica tries to _____ so she doesn't overspend.
6. If you're not careful, you might _____ money.
7. Mia needs to _____ cash from her bank to pay rent.
8. Sometimes, John _____ something he doesn't need to make extra money.
9. Jack decided to _____ a new phone because his old one broke.
10. Luis always remembers to _____ the waiter for good service.
11. Maria's friend had to _____ money from the bank to buy a car.
12. Every month, Mark _____ his _____ to see where he can save.
13. If Nora loses her job, she might not _____ her rent.
14. Her goal is to _____ enough money to buy a house.

Tema 4. Stereotypes-or are They?

Look at the word carefully. Discuss what it means. Think about ideas or beliefs people sometimes have about men and women. Use the examples below to help you.



Women are not good at technology.

Men should not show emotions.

Read each phrase carefully. Decide if it is usually connected to men, women, or both in society. Write each phrase in the correct column.

Women	Both	Men

- are good at cooking*
- enjoy video games*
- are natural leaders*
- are interested in fashion*
- are brave in difficult situations*
- are good at managing money*
- enjoy taking care of others*
- are competitive*
- are creative*
- are good drivers*
- prefer teamwork*
- are independent*
- are skilled with technology*
- are patient*
- enjoy outdoor activities*
- communicate effectively*

Tema 5. Failure and Success.

Big or Small?

Work in pairs or small groups. Read the goals on the left. Decide which goals are BIG and which goals are SMALL for you. Write the goals in the correct box.

	<u>Small goals</u>	<u>Big goals</u>
<ul style="list-style-type: none"> ◆ Clean the whole house once a week ◆ Drink not more than one cup of coffee ◆ Read 5 pages every day ◆ Tidy your desk every day 		

<ul style="list-style-type: none"> ◆ Find a new job ◆ Not to use your phone after 10 p.m. Say “no” to sweets on weekdays ◆ Call a family member once a week Make new friends ◆ Track your spending every day ◆ Do stretching/yoga every morning Lose weight ◆ Walk 10,000 steps every day ◆ Drink 2 liters of water every day ◆ Study English for 30 minutes every day Save a little money each week ◆ Start a new hobby 		
---	--	--

Sorting your Goals

Fill in the gaps with words from the list. Then decide which goals are true for you.

decide change ready have a dream step by step possible make a plan
careful improve set a big goal

One thing I really want to _____ this year is my English. I need to _____ something in my daily routine or diet.

I want to be more _____ with my health.

I _____ to get a good job one day.

I plan to lose weight slowly, _____.

I _____ to read 5 pages every day.

I will _____ how to feel happy next year.

I'm not _____ to walk 10,000 steps every day yet.

This year I want to _____ for myself.

I think it's _____ to learn English for 30 minutes every day.

What Tiny Steps Can You Take?

Look at the big goals below from the texts. Write 2–3 tiny steps you can do to get to each goal.

Example: Cook better

Tiny steps:

watch a short cooking video

ask someone to help you cook

try to make one simple meal

Save some money

Tiny steps:

Lose weight

Tiny steps:

Make new friends

Tiny steps:

Read the statements below about modern manners. Decide whether you think each action is polite, impolite, or it depends.

Modern Manners – What Do You Think?

1. Checking your phone while having dinner with friends.
2. Sending a voice message instead of texting.
3. Arriving 10 minutes late without informing anyone.
4. Wearing headphones in public places.
5. Using emojis in work or study messages.
6. Leaving a group chat without saying goodbye.
7. Taking photos of food before eating.
8. Speaking loudly on the phone in public.
9. Not turning your camera on during an online class.
10. Replying to messages several hours later.

Answer the questions:

- Which actions are acceptable today but were unusual in the past?
- Are manners different online and offline?
- Do people of different ages have different ideas about politeness?
- Which modern manners are important in your country?

Extension:

Write **3 rules for good modern manners** for university students.

Tema 7. Sports Superstitions.

Let's talk!

1. Do you do any sports these days? How do you get exercise?
2. Which sports do you enjoy watching on TV? How much time do you spend watching them?
3. Have you watched any sports live at a sports ground or stadium? How was the experience? Was it better than watching on TV?
4. Is sport important? What does it teach people?
5. What are extreme sports? Have you tried any of these?
6. How are sports and e-sports (electronic sports) different?
7. How do you usually feel after exercising? Can it make you happier?

Read and discuss the meaning of the words below.



Let's practice and see how many words do you remember. You can look through the words on the previous slide one more time before doing this task.

	Places	People	Equipment
-Put the words into the correct categories; -Do you remember what they are called? -Create 3 sentences with the words of your choice.			



1. _____
2. _____
3. _____

Answer the questions.

Are you interested in astronomy? Why or why not?

Have you ever looked at the stars through a telescope?

Which planet would you like to visit? Why?

Do you think people will live on another planet in the future?

What would be the advantages and disadvantages of space travel?

Would you like to be an astronaut? Explain your answer.

Extension:

Choose one planet from the Solar System and give a short 1-minute presentation about it. Include:

- its position in the Solar System;
- its size or appearance;
- one interesting fact;
- why you would or would not like to visit it.

Read the sentences and choose the correct answer (A, B, or C).

Which planet is known as the Red Planet?

- A) Venus
- B) Mars
- C) Jupiter

The Sun is a:

- A) planet
- B) moon
- C) star

Which planet is closest to the Sun?

- A) Mercury
- B) Earth
- C) Saturn

The Earth takes about _____ to go around the Sun.

- A) 24 hours
- B) 30 days
- C) 365 days

Which planet is famous for its rings?

- A) Mars
- B) Saturn
- C) Neptune

The Moon is:

- A) a star
- B) a satellite of Earth
- C) a planet

Match each situation with the correct Newton's Law.

A. First Law (Law of Inertia)

B. Second Law (Force = Mass \times Acceleration)

C. Third Law (Action and Reaction)

1. A passenger moves forward when a car stops suddenly. _____
2. A football travels farther when it is kicked harder. _____
3. A swimmer pushes water backward and moves forward. _____
4. A heavy shopping cart is harder to push than an empty one. _____
5. A book remains on a table until someone moves it. _____
6. A rocket moves upward because gases are pushed downward. _____

Follow-up:

Can you think of one more example for each law from your daily life?

Read the statements and decide whether they are True (T) or False (F).

1. Physics studies matter, energy, motion, and forces. _____
2. The Universe contains only stars and planets. _____
3. Gravity is one of the forces studied in physics. _____
4. Newton developed three laws of motion. _____
5. Physics helps us understand how the world and the Universe work. _____
6. The Sun moves around the Earth. _____

Discussion Questions:

- Why is physics important in everyday life?
- Which invention would not exist without physics?
- What would you like to learn about the Universe?
- Do you think space exploration is important? Why or why not?

Tema 12. Pressure and Temperature.

Choose the correct option.

- | | |
|---|--|
| 1. Temperature shows: | 3. When the temperature of a gas increases, the particles: |
| A) the amount of pressure in a system | A) move faster |
| B) how hot or cold an object is | B) stop moving |
| C) the size of an object | C) become smaller |
| 2. Pressure in a gas is caused by: | 4. A thermometer is used to measure: |
| A) particles moving and colliding with the walls of a container | A) pressure |
| B) the colour of the gas | B) temperature |
| C) the shape of the container | C) force |

5. When air pressure outside a bottle is higher than inside, the bottle can:

- A) expand
- B) collapse
- C) disappear

6. The unit commonly used to measure temperature is:

- A) Celsius degree ($^{\circ}\text{C}$)
- B) kilogram (kg)
- C) metre (m)

Complete the sentences using the words from the box.

Box: particles • pressure • temperature • thermometer • faster • atmosphere

1. A _____ is an instrument for measuring temperature.
2. Gas _____ move randomly in all directions.
3. When the _____ increases, particles move faster.
4. Air _____ is the force created by the weight of air.
5. Hot gas particles usually move _____ than cold gas particles.
6. The Earth's _____ protects our planet and contains gases.

1. Why do gases create pressure?
2. What happens to particles when a substance is heated?
3. Where do we use knowledge about pressure and temperature in everyday

life?

Модуль 2. Global Issues.

Тема 13. Shot on Location.

Name 2 pros and 2 cons of the options below.

- ... staying in the most expensive hotel in the city
- ... choosing the cheapest flight you can find
- ... travelling with someone who is less organised than you
- ... planning a holiday that is more adventurous than relaxing
- ... taking the longest train journey instead of a short flight
- ... going on a trip that is more expensive than you expected
- ... taking a holiday that is shorter but much more luxurious
- ... going to a beach that is farther away but less touristy
- ... buying a suitcase that is bigger than you need
- ... visiting a place that is hotter than expected but more exciting

Travel Cards

1. **The best place to stay**
 The best place to stay for a holiday is _____ because _____.
2. **The cheapest way to travel**
 The cheapest way to travel is _____.
3. **The most exciting destination**
 The most exciting destination I would like to visit is _____.
4. **The busiest place you've visited**
 The busiest place I have visited was _____.
5. **A less stressful journey**
 A less stressful journey is possible if you _____.
6. **A more unusual experience**
 A more unusual travel experience would be _____.
7. **The friendliest people**
 The friendliest people I have met were _____.
8. **A safer destination**
 A safer destination for tourists is _____ than _____.

Tema 14. Judging by Appearances.
Sort the words according to the categories.

long	pretty/ugly	young
old	wavy	straight
short	medium-length	curly
plump/overweight	fit/sporty	attractive
slim/thin	short/tall	middle-aged



age



appearance



build



hair type



hair length

Can you name more words to each category?

What do you look like?

Discuss the meaning of the words you don't know. Describe yourself using these words.

I'm

I've got

I look

My hair is

I'm

I've got

I look

My hair is

age	appearance	build	hair type	hair length
young	attractive	fit/sporty	curly	long
middle-aged	short/tall	plump/overweight	wavy	medium-length
old	pretty/ugly	slim/thin	straight	short
elderly	beautiful	muscular	blonde	shoulder-length
mature	handsome	well-built	brunette	voluminous

Tema 15. Extraordinary School for Boys.

Many schools around the world have different traditions, rules, and teaching methods. However, some schools are unusual because of their history, students, or educational ideas.

The school was created for boys who wanted to improve their knowledge and develop their talents. 1 _____ The teachers believed that students needed not only academic skills but also confidence and responsibility.

The school day was different from a traditional school. Students had lessons in science, languages, and history, but they also took part in sports and creative activities. 2 _____

The teachers used modern methods to make learning more interesting. 3 _____ Students often worked in groups, discussed ideas, and solved problems together.

Life at the school was not always easy. Boys had to follow strict rules and be organised. 4 _____ However, these challenges helped students become more independent.

Today, many people consider this school an example of how education can change students' lives. 5 _____ It shows that a good school is not only about exams but also about personal development.

Sentences:

- A) They learned how to work as a team and support each other.
- B) It welcomed students from different backgrounds and helped them succeed.
- C) Technology and creative activities were important parts of the learning process.
- D) They had to manage their time and complete their tasks on schedule.
- E) The main aim was to prepare young people for future challenges.

Are the statements True (T) or False (F)?

1. The school was created to help boys develop their abilities. _____
2. Students only studied traditional school subjects. _____
3. Sports and creative activities were part of school life. _____
4. Teachers used only old-fashioned teaching methods. _____

5. Students had to be organised and responsible. _____
6. The school focused only on passing exams. _____

Match the words with their meanings.

1. talent
 2. responsibility
 3. challenge
 4. improve
 5. independent
- a) able to do things without help
 - b) something difficult that tests your abilities
 - c) a natural ability to do something well
 - d) to become better at something
 - e) something you must do or take care of

Tema 16. Ideal Home.

Read about the two flats between which Emma is trying to choose. Then answer the questions.

The Forest Flat

The first flat is a small place just outside the town. It is very close to a forest, so Emma can enjoy fresh air every day. She can go for short walks whenever she wants.

Emma has to look after a small balcony garden. She has to water the flowers once a week. She doesn't have to pay for the internet or extra heating in winter, because both are included in the rent.

People in the building have to recycle their rubbish, but they don't have to take it out every day. The bins are collected twice a week, so they can choose when to take it down.

There are a few more rules. Emma can't play loud music late at night, and she can't leave her bike in the hallway. She has to close the building gate after 9 p.m., and she has to turn off the balcony light at night.

*tenants – the people who rent the flat.

The City Flat

The second flat is in the city centre. Emma can walk to work, and she can use a shared rooftop terrace with the other *tenants. She can also take the bus easily, because the bus stop is in front of the building.

She has to pay for electricity every month. She has to take the rubbish to the bins behind the building. She doesn't have to buy a washing machine, because there is a shared laundry room in the basement. She doesn't have to buy any furniture either; the flat is fully furnished.

People in the building don't have to pay for parking, because each flat has its own space. However, they have to park only in their own space.

There are a few simple rules. Emma can't have large parties in the flat, and she has to keep noise down after 10 p.m. She also has to report any problems to the caretaker.

Flat 1 (Forest Flat)

- Can Emma go for walks in the forest? _____
- Does Emma have to water the flowers once a week? _____
- Does Emma have to pay for the internet? _____ - Do people in the building have to recycle their rubbish? _____
- Can Emma leave her bike in the hallway? _____

Flat 2 (City Flat)

- Can Emma use the rooftop terrace? _____
- Does Emma have to pay for electricity? _____
- Does Emma have to buy any furniture? _____
- Can Emma have large parties in the flat? _____ - Do people in the building have to park in their own space? _____

Flatmate Life

Read the text. Match each paragraph with the correct heading from the list on the left. There are two extra headings.

- a) This place gets messy fast
- b) b) Can someone help me here?
- c) c) Why is everyone waiting?
- d) I need a quiet place now
- e) A small problem every day
- f) Too much noise tonight
- g) We like things differently
- h) Where is my snack?

Living with another person is a big part of today's life. Many people share a flat with a friend, a classmate, or even someone they don't know very well. Living together can be fun and exciting — but sometimes a bit stressful too. Here are some real things that happen in shared homes, and simple ideas to make life easier.

1. _____

In many flats, the kitchen doesn't stay clean for long. Dirty plates stay in the sink, and food stays on the table. This often happens because people feel tired or say, "I will clean later."

A simple fix is to have a short cleaning time after meals. Ten minutes is enough. Some flatmates put on a song and clean together. It's fast, and the kitchen looks good again.

2. _____

People have different habits. One person goes to bed early. Another watches videos or listens to music at night. In a small flat, this can be a problem.

A good idea is to start “quiet time” after an hour you both choose, for example after 10 p.m. People can use headphones or keep the sound low. Some flatmates even send funny messages like, “Shhh... quiet time!”

3. _____

This happens in many shared homes: you open the fridge and your yoghurt or biscuit is missing. Sometimes people take food by mistake or forget it belongs to someone else.

Just choose a shelf or small basket in the fridge. Some people write small friendly notes, like “Please don’t take this”. It keeps things clear for everyone.

4. _____

Morning time can feel very busy in a shared flat. Two or three people need the bathroom, but there is only one shower. Someone stays in the bathroom too long, and other people need to wait.

An easy fix is to plan short bathroom times, like ten minutes each in the morning.

5. _____

People are different. One person wants the window open, another feels cold. One person likes bright lights, another prefers soft lights. These small differences can make people feel a bit angry.

Talking helps. Flatmates can make small, simple plans, like opening the window for five minutes, or using a small lamp in the evenings. Little things can make life easier for everyone.

6. _____

Many people study or work from home now. This means more online meetings and online lessons. Sometimes two people need a room with no noise at the same time.

A good idea is to plan who uses which room and when. Some flatmates put a small note on the door saying, “Video call — back in 20 minutes.” This helps everyone know what is happening.

Living together is never perfect, but it doesn’t need to be difficult. When people talk, help a bit, and stay kind, even small flats feel friendly. And with a few simple rules, shared living can be easy — and many times, fun too.

Tema 17. Sell and Tell.

Read the statements about shopping. For each one, rate how strongly you agree on a scale of 1 to 5 (1 = don't agree at all, 5 = strongly agree). After rating, explain your choice.

Shopping is a good way to relax after work or school.

It's good to make a list before you go shopping.

It's cheaper to buy food at the market than in the supermarket.

Shopping is boring, because it takes too much time.

It's important to check the price before buying something.

Many people buy things online because they see them on social media.

Look at the map. Match the shop symbols on the map to the names of the shops.

1. newsagent's _____

2. shoe shop _____

3. butcher's _____

4. greengrocer's _____

5. sports shop _____

6. electronics store _____

7. chemist's _____

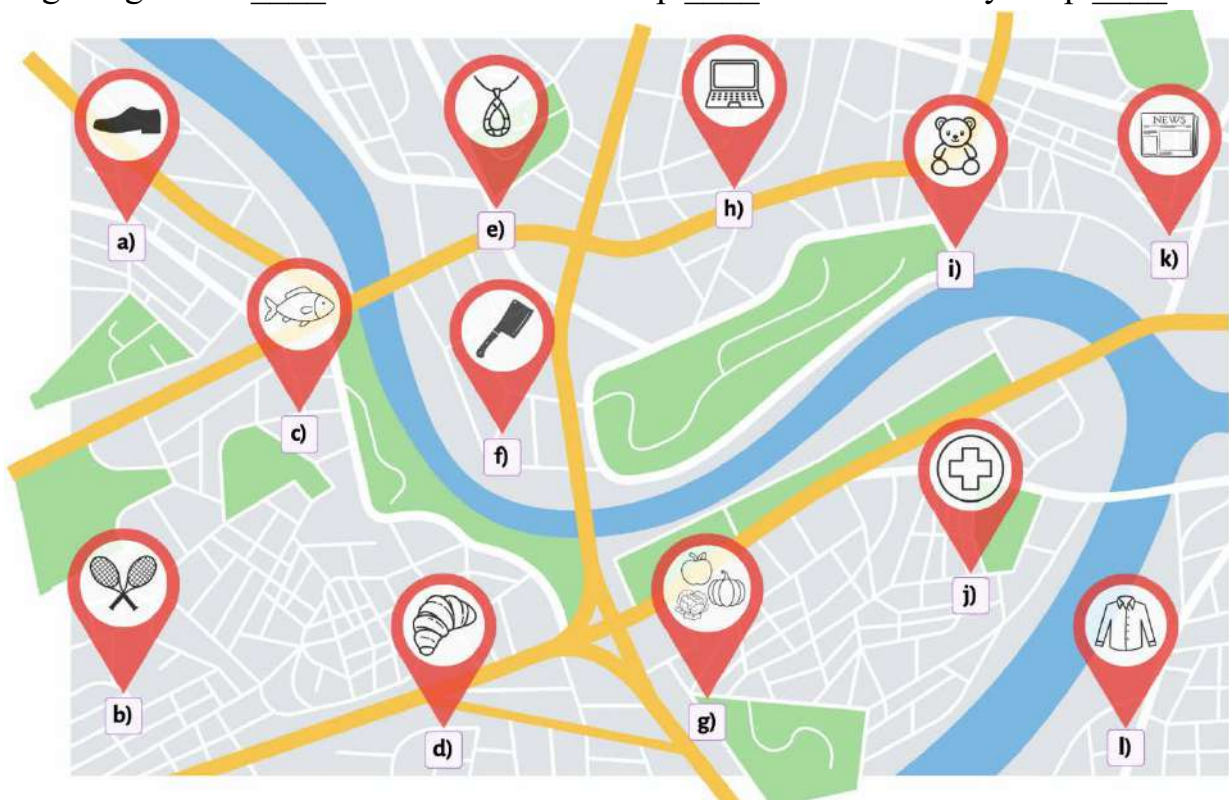
8. clothes shop _____

9. baker's _____

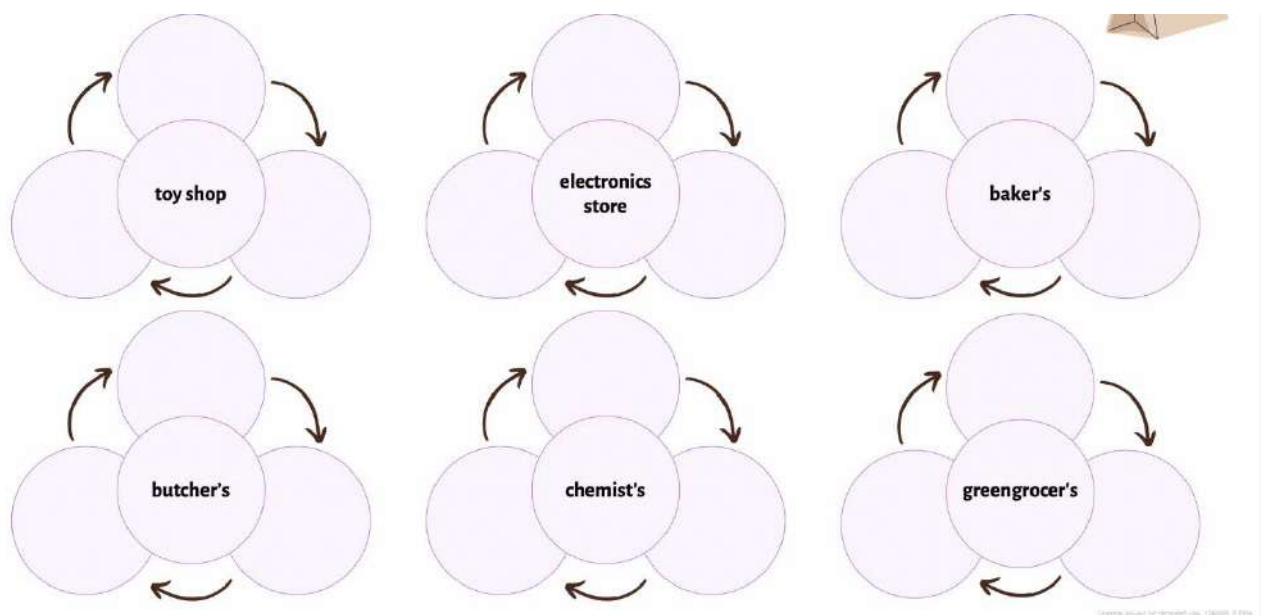
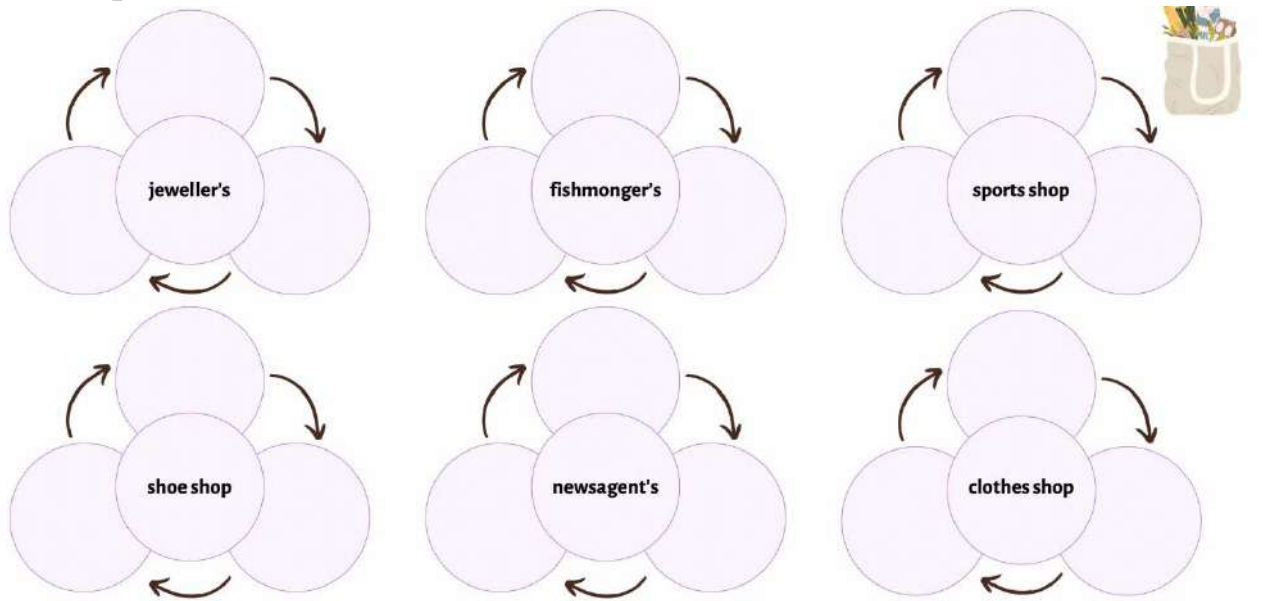
10. fishmonger's _____

11. jeweller's _____

12. toy shop _____



Read the names of the shops below and think of three things you can buy in each shop.



Tema 18. What's the Right Job for You?

What kind of job would you like to have in the future?

Let's talk!

1. Do you think it's important to enjoy your job?
2. What is the most interesting job you've heard of?
3. Would you rather work alone or with other people?
4. Do you think it's better to have a high-paying job that you don't enjoy, or a lower-paying job that you love?

Discuss the words and their meanings and play a guessing game!



Guess the job

Read the description and match it with the correct profession.

- Brings food and drinks in a restaurant, takes orders from customers, carries a tray.
 - Provides medical care to animals, may work in veterinary clinics, hospitals, or animal shelters.
 - Helps doctors and provides care to patients in hospitals or clinics, administers medications.
 - Cuts and styles hair, works in a salon, uses scissors and combs.
 - Works with wood, builds or repairs furniture, uses tools like a saw and hammer.
 - Helps customers in a store, helps with shopping, scans and bags items.
- shop assistant
 - vet
 - hairdresser
 - waiter/waitress
 - carpenter
 - nurse

Complete the following sentences with different jobs.

- Sarah went to the _____ because she had a toothache.
- David is a _____ and he works at a car repair shop.
- Emma's house had a leak, so she called a _____ to fix the pipes.
- Lisa wants to become a _____ when she grows up and fly airplanes.
- Tom's cat got sick, so he took it to the _____ for a check-up.
- Mark is a _____ and he is currently building a new house in town.
- Amanda needed a ride to the airport, so she called a _____ to pick her up.

8. Alex is a _____ and he helps customers find their desired products in a store.
9. Peter is a _____ and he bravely fights fires to save people's lives.
10. Dr. Johnson is a _____ and he performs surgeries at the city hospital.

Tema 19. Too Much Information!

Look at the term “digital detox”. Discuss what it might mean. Then answer the questions below.

A digital detox is a period when someone avoids using digital devices (like phones, laptops) or social media to reduce stress, improve focus, or reconnect with the real world.

1. Why do you think the idea of “digital detox” has become more popular in recent years?
2. In what ways might constant connectivity affect the way people think or communicate?
3. What types of people or professions might benefit most from a digital detox?
4. Is choosing to disconnect from digital life a privilege? Why or why not?
5. Could a digital detox ever have negative effects?
6. Can you think of any situations where staying online is essential?

How Digitally Addicted Are You?

Read each statement below and choose the option that best describes you. Answer the questions accurately to understand whether you might benefit from a digital detox.

1. How often do you check your phone, even when there are no notifications?
 - A. Rarely – only when I’m expecting something important.
 - B. Quite often – I do it without thinking.
 - C. All the time – it's automatic now.
2. How do you usually feel after spending several hours online?
 - A. Fine – I feel entertained or relaxed.
 - B. A bit tired or mentally scattered.
 - C. Drained, stressed, or moody.
3. When was the last time you spent an entire day without using a screen?
 - A. Recently – I try to do this regularly.
 - B. I can't remember the last time.
 - C. I don't think I've ever done that.
4. What's your average screen time per day (outside of work or school)?
 - A. Less than 2 hours – I try to limit it.
 - B. Between 3 and 5 hours.
 - C. More than 6 hours, sometimes much more.

5. How do you feel when you're offline or can't access your devices?
- A. Fine – it's a relief, actually.
 - B. Slightly restless or bored.
 - C. Panicked or cut off from the world.
6. Have you ever felt like you're missing out if you're not online?
- A. Not really – I enjoy time away from social media.
 - B. Occasionally – especially if others are posting.
 - C. Yes – I hate not knowing what's going on.
7. Have you ever avoided real-life social interactions because you were too absorbed in your device?
- A. No – I prioritise face-to-face contact.
 - B. Occasionally – but only when I'm tired.
 - C. Yes – it happens more than I'd like to admit.

Count your answers and review the results. Do you agree with this description?

Mostly A's: The Digital Balance Master.

You've clearly developed a healthy and well-managed relationship with technology. You're able to enjoy the benefits of being online without letting it interfere with your wellbeing, productivity, or personal relationships. You know when to switch off, and you're comfortable spending time offline. This balance helps you stay focused, sleep better, and engage more fully in real-life experiences.

Mostly B's: The Occasional Overuser.

You're fairly balanced, but your digital habits could use a little fine-tuning. You're not completely dependent on your devices, but you do find yourself scrolling or checking notifications more often than you'd like. At times, this can lead to difficulty concentrating, disrupted sleep, or feeling mentally scattered. A short digital detox — or simply building a few healthier habits — could help you regain focus and feel more present in your daily life.

Mostly C's: The Screen-Time Struggler.

Your answers suggest that technology plays a major role in your daily routine — possibly more than you realise. Constant connection can leave you feeling drained, distracted, or even anxious when you're offline. It may be time to take a proper step back. A digital detox could help you reconnect with yourself, boost your mental health, and improve your sleep and attention span. Consider starting small: schedule offline time each day, turn off non-essential notifications, or try spending a whole afternoon screen-free. Your mind and body will thank you.

Do We All Need a Digital Detox?

Discuss the questions.

1. *Do you think the journalist was convinced by the end of the conversation? Would you be?*
2. *Have you ever tried a digital detox? If yes, what was it like?*
3. *If not, would you try one?*
4. *Which of Dr Lewis's tips or benefits stood out to you the most? Why?*
5. *Which benefit of unplugging sounds most useful or appealing to you?*
6. *How realistic are the tips mentioned in the interview for your lifestyle?*

Read the text about digital detox retreats. Then answer the questions.

No phones. No emails. No endless scrolling.

A digital detox retreat is a place where you switch off your screens — and switch on your brain.

Set in calm, natural spaces like forests or seaside lodges, these retreats help people unplug from technology and reconnect with real life. Instead of emails and notifications, you'll find slow mornings, long walks, yoga, creative activities, and maybe even a bit of silence.

Some retreats are strict — no phones at all. Others are more flexible.

But the idea is always the same: take a break from digital noise and give your mind a rest.

Would you survive without your phone for a few days?

What kind of people might love (or hate) a place like this?

Which parts sound appealing — and which sound boring?

Think of 3-4 unusual or creative activities that could be offered at a digital detox retreat. They should help guests relax, focus, or connect with others — without using technology.

For example: forest sketching, silent breakfast, no-talking walks, mindful cooking.

Tema 20-21. Matter and Measurement. Discovery of Radioactivity.

Match the words (1–6) with the correct definitions (a–f).

1. Matter
2. Measurement
3. Atom
4. Radioactivity
5. Radiation
6. Scientist

- a) The process of finding the size, amount, or value of something.
- b) A person who studies science and discovers new facts.
- c) Everything that has mass and takes up space.
- d) Energy that travels in the form of waves or particles.
- e) The smallest unit of an element.
- f) The process in which unstable atoms release energy.

Complete the sentences using the words from the box.

Box: matter • atoms • measurement • radioactivity • radiation • experiment

1. All objects around us are made of _____.
2. Scientists use tools to make accurate _____.
3. Every substance is made of tiny particles called _____.
4. _____ was discovered by scientists studying unusual energy from materials.
5. Marie Curie was one of the most famous scientists who studied _____.
6. A scientific _____ helps researchers test their ideas.

True or False: Science Facts

Read the statements and write T (True) or F (False).

1. Matter has mass and occupies space. _____
2. Atoms can be seen easily without special equipment. _____
3. Measurement is important in scientific experiments. _____
4. Radioactivity is the release of energy from unstable atoms. _____
5. Marie Curie studied radioactivity and made important discoveries. _____
6. All radiation is harmful to humans. _____

Discussion:

- Why are measurements important in science?
- Where do we use radioactivity in modern life?
- What scientific discovery would you like to learn more about?

Tema 22-23. The Planetary Model of the Atom. Electricity.

Complete the sentences:

- “Electricity is important because...”
- “An atom is like a mini solar system because...”
- “A circuit must be closed because...”

Creative mini-task

Draw:

- a simple atom (nucleus + electrons)

OR

- a simple electric circuit (battery + bulb + wires)

Write 2 sentences:

- “This is an atom because...”

OR

- “This is a circuit because...”

Atomic structure

1. Complete the table below

	Proton	Electron	Neutron
Relative Charge			
Relative mass			
Location			
How to determine			

2. Two atoms both have 6 protons. One has 6 neutrons and the other has 8 neutrons. Are they the same element or different elements? Explain why.

3. An atom has 11 protons and 10 electrons. Is the atom neutral or charged? Explain how you know.

РЕКОМЕНДОВАНА ЛІТЕРАТУРА

Основна:

1. Англійська мова професійного спрямування. Прикладна фізика та наноматеріали [Електронний ресурс]: навч. посіб. для здобувачів ступеня бакалавра за освітньою програмою «Прикладна фізика» спеціальності 105 «Прикладна фізика та наноматеріали» / КПІ ім. Ігоря Сікорського ; уклад.: Чугай О. Ю., Гавриленко К. М., Хмельницький Р. В., Приходько Д. С., Медкова О. М. – Київ : КПІ ім. Ігоря Сікорського, 2022. – 267 с.
2. Гуліч О.О. Англійська мова для фізико-математичного напрямку: метод. рекомендації Харків: ХНПУ імені Г.С. Сковороди; «Мітра», 2020. 86 с.
3. Куліш І. М., Поліщук О. Л. Англійська мова для студентів фізико-математичних інститутів і факультетів / І.М.Куліш, О.Л.Поліщук. Черкаси: Вертикаль, видавець Кандич С. Г., 2021. 144 с.

Додаткова:

1. Голіцинський Ю. Граматика. Збірник вправ / Ю. Голіцинський, Н. Голіцинська. Київ: Видавництво «Арій», 2019. 544 с.
2. Glendinning E., McEwan J. Oxford English for Information Technology. Oxford University Press, 2nd ed. 2014. 220 p.
3. Grammarway 4. Student's Book / Jenny Dooley & Virginia Evans : Express Publishing, 2017. 224 p.
4. Murphy R. English Grammar in Use: Cambridge University Press, 2011. 328 p.
5. Professional English: Computer Technologies: навч. посіб. / О. М. Акмалдінова, О. Є. Бугайов, Г. В. Бабій, С. А. Волгіна. Київ: НАУ, 2014. 352 с.

Інтернет-ресурси:

1. Бібліотека Житомирського державного університету імені Івана Франка [Електронний ресурс]. URL: http://irbis.zu.edu.ua/cgi-bin/irbis64r_11/cgiirbis_64.exe
2. BBC Learning English [Електронний ресурс] – Режим доступу до ресурсу: <http://www.bbc.co.uk/worldservice/learningenglish/>
3. Longman Dictionary of Contemporary English Online. URL: Режим доступу до ресурсу: <http://www.ldoceonline.com/>
4. TED-Ed. YouTube. URL: <https://www.youtube.com/@TEDEd>