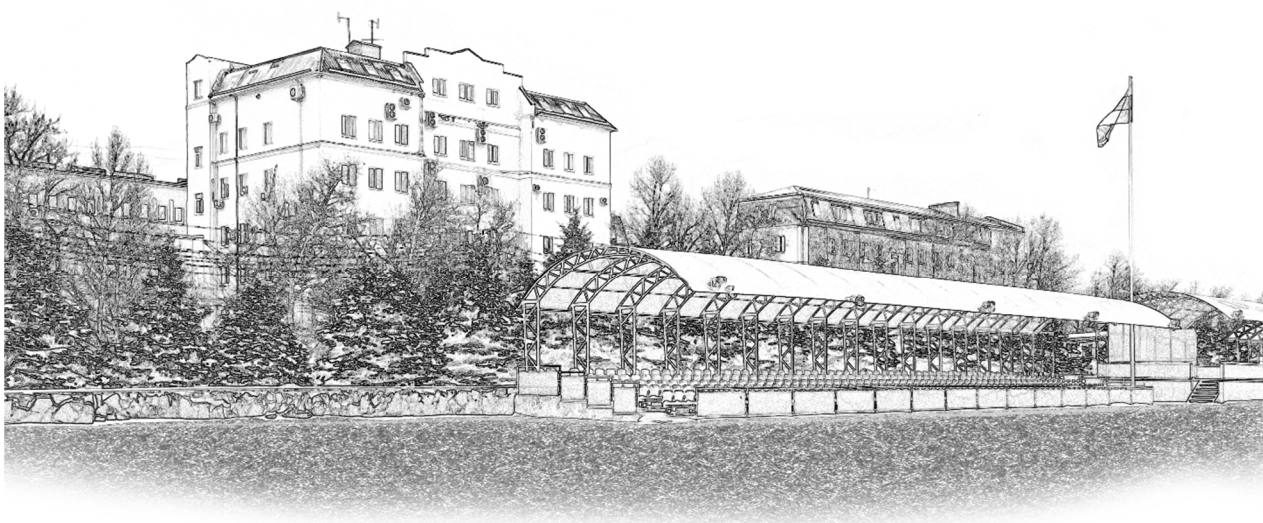




Краснодарский университет МВД России

**Английский язык
для подготовки сотрудников органов внутренних
дел, специализирующихся на расследовании
преступлений, совершаемых с использованием
информационно-телекоммуникационных
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Учебно-методическое пособие

Краснодар
2025

УДК 811.111(075.8)
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А647

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Английский язык для подготовки сотрудников органов
А647 внутренних дел, специализирующихся на расследовании преступлений, совершаемых с использованием информационно-телекоммуникационных технологий : учебно-методическое пособие / сост.: С. В. Кулинская, О. А. Ступина. – Краснодар : Краснодарский университет МВД России, 2025. – 308 с.

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Содержатся профессионально ориентированные материалы по изучению иностранного языка, которые способствуют использованию полученных знаний в коммуникативных ситуациях, возникающих в процессе выполнения служебных обязанностей. Предлагаются задания, стимулирующие формирование продуктивной монологической и диалогической речи.

Для профессорско-преподавательского состава, курсантов, слушателей образовательных организаций МВД России и сотрудников органов внутренних дел Российской Федерации.

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Учебно-методическое пособие предназначено для курсантов 2 курса, обучающихся по специальности 40.05.01 – Правовое обеспечение национальной безопасности, профиль образовательной программы – Предварительное следствие в органах внутренних дел по уголовным делам в отношении лиц, совершивших преступления с использованием информационно-телекоммуникационных технологий.

Цель пособия – обучить курсантов активному владению английским языком, а также сформировать способность и готовность вести дискуссию.

В пособие включены темы:

1. Предупреждение IT-преступлений.
2. Идентификация в расследовании IT-преступлений
3. Расследование IT-преступлений.
4. Понятие и виды IT-доказательств.
5. IT-технологии при осмотре места происшествия.
6. Ведение допроса с использованием IT-технологий.
7. IT-технологии в борьбе с незаконным распространением наркотиков.
8. IT-технологии в профилактике преступлений среди несовершеннолетних.
9. Использование IT-технологий в борьбе с преступлениями экстремистской и террористической направленности.

Лексика в каждой теме закрепляется в разнообразных коммуникативных упражнениях и находит применение в дискуссиях. Предлагаемые задания стимулируют продуктивную монологическую и диалогическую речь, побуждают слушателей к обмену информацией. Каждый раздел является логическим продолжением следующего, но при необходимости может быть использован самостоятельно.

При работе с языковым материалом основное внимание уделяется обогащению лексического запаса за счет изучения терминологических и сопутствующих лексических единиц общенаучного и функционального характера, наиболее часто применяемых в области расследования и

предотвращения преступлений. При освоении грамматики предполагаются повторение, углубление и систематизация изученных в рамках общеобразовательного стандарта структур в целях активизации навыков и умений структурно-семантического анализа профессионально ориентированного текста, а также использования грамматических явлений в иноязычной профессиональной коммуникации.

Методические рекомендации по работе с учебно-методическим пособием

Методические рекомендации для курсантов по работе с учебно-методическим пособием нацелены на формирование устойчивых навыков и умений по разным аспектам обучения английскому языку, позволяющих решать учебные задачи, выполнять разнообразные задания, преодолевать наиболее трудные моменты в отдельных видах работы по данным темам.

Все разделы идентичны по структуре. В каждом из них имеется грамматический материал (правила, упражнения), тексты для чтения по заявленной теме и послетекстовые упражнения, задания по развитию навыков устной и письменной коммуникации.

РАБОТА НАД ПРОИЗНОШЕНИЕМ И ТЕХНИКОЙ ЧТЕНИЯ

При работе над произношением и техникой чтения следует обратить внимание на несоответствие между написанием и произношением слов в английском языке. Это различие объясняется тем, что количество звуков значительно превышает число букв: 26 букв алфавита обозначают 44 звука, поэтому одна и та же буква в разных положениях в словах может читаться как несколько разных звуков.

При подготовке фонетического чтения текста необходимо использовать следующий алгоритм:

освоить правильное произношение читаемых слов;
обратить внимание на ударение и смысловые паузы;
обратить внимание на правильную интонацию;
выработать автоматизированные навыки воспроизведения и
употребления изученных интонационных структур;
отработать темп чтения.

РАБОТА С ЛЕКСИЧЕСКИМ МАТЕРИАЛОМ

При составлении списка слов и словосочетаний по какой-либо теме (тексту), при оформлении лексической картотеки или тетради-словаря курсанты должны выписывать из англо-русского словаря лексические единицы в их исходной форме:

имена существительные – в именительном падеже единственного числа (целесообразно также указать форму множественного числа, например: shelf – shelves, man – men, text – texts;

глаголы – в инфинитиве (целесообразно указать и другие основные формы глагола – Past Simple и Past Participle, например: teach – taught – taught, read – read – read и т. д.).

Заучивать лексику необходимо с помощью двустороннего перевода (с английского языка – на русский, с русского языка – на английский) с использованием разных способов оформления лексики (списка слов, тетради-словаря, картотеки).

Для закрепления лексики целесообразно использовать примеры употребления слов и словосочетаний в предложениях, а также словообразовательные и семантические связи заучиваемых слов (однокоренные слова, синонимы, антонимы).

Для формирования активного и пассивного словаря необходимо освоение наиболее продуктивных словообразовательных моделей английского языка.

РАБОТА СО СЛОВАРЕМ

Для успешной работы со словарем необходимы следующие знания и умения.

1. Знание английского алфавита.

Слова в словаре расположены строго в алфавитном порядке, алфавитная последовательность учитывается и внутри слова.

2. Умение поставить слово в исходную форму.

Слова в словаре даются в их исходной форме:

существительное – в общем падеже, единственном числе: **country**;

глагол – в неопределенной форме, т. е. в инфинитиве: **send**;

прилагательное – в положительной степени: **good**;

наречие – в положительной степени: **well**.

Следует помнить:

Y в конце слова и с предшествующей согласной меняется на **i** при образовании:

множественного числа имен существительных: **city – cities**;

степеней сравнения прилагательных и наречий: **easy – easier**;

3-го лица единственного числа в Present Simple: **study – studies**, а также при образовании Past Simple и Past Participle.

В односложных прилагательных и глаголах с краткими гласными при образовании различных форм конечная согласная удваивается:

big – bigger – biggest; to stop – stopped;

слова, оканчивающиеся на **-ing**, образованные от глаголов, следует искать в словаре, отбросив окончание **-ing**:

discovering – ing = discover; reading – ing = read;

для неправильных глаголов формы Past Simple и Past Participle даются в словарях в круглых скобках: **take v (took; taken)**.

3. Знание правил словообразования.

Многие новые слова могут быть образованы с помощью префиксов и суффиксов, знание которых значительно облегчает самостоятельную работу над текстом с использованием словаря.

4. Умение понимать различные обозначения при словах в словаре.

Следует помнить, что каждое слово (в том числе и сложное слово, которое пишется через дефис или отдельно) со всем относящимся к нему материалом образует самостоятельную словарную статью.

При словах иностранного происхождения, сохранивших свое написание и иногда происхождение, дается указание на происхождение слова. Например: *vice versa* (лат.) – *наоборот, напротив*.

5. Умение выбрать в словаре нужное для данного контекста значение слова.

Следует помнить, что поиску слова в словаре должен предшествовать анализ предложения. Чтобы уметь анализировать предложение, необходимо знать:

- а) структуру предложения в английском языке;
- б) формальные признаки различных частей речи.

Старайтесь избегать следующих ошибок.

Курсанты иногда выписывают из словаря значения слов, даже не прочитав до конца предложение. Такая работа часто оказывается безрезультатной, поскольку выписывается, как правило, лишь первое значение слова, которое может не соответствовать значению слова в данном контексте.

Некоторые курсанты сначала выписывают значения всех слов, а затем пытаются их соединить. При отсутствии предварительного анализа предложения не получится правильного перевода.

Многие слова являются многозначными, т. е. имеют несколько значений, поэтому при поиске значения слова в словаре необходимо читать всю словарную статью и выбирать для перевода то значение, которое подходит в контекст предложения (текста).

Сравните предложения:

- a) Red Square is one of the biggest squares in Europe.
- b) You must bring this number to a square.

c) If you want to get to this supermarket you must pass two squares.

d) He broke squares.

Изучение всей словарной статьи о существительном «square» и сопоставление данных словаря с переводимыми предложениями показывают, что в предложении a) существительное «Square» имеет значение «площадь» («Красная площадь – одна из самых больших площадей в Европе»), в предложении b) – «квадрат» («Вы должны возвести это число в квадрат»), в предложении c) – «квартал» («Если Вы хотите добраться до этого супермаркета, Вам нужно пройти два квартала»); в предложении d) употребляется выражение «brake squares» – «нарушать установленный порядок» («Он нарушил установленный порядок»).

При поиске в словаре значения слова в ряде случаев необходимо принимать во внимание грамматическую функцию слова в предложении, так как некоторые слова выполняют различные грамматические функции и в зависимости от этого переводятся по-разному.

Сравните:

a) The work is done = Работа сделана (work выполняет функцию подлежащего);

б) They work in a big company = Они работают в большой компании (work – выполняет функцию сказуемого).

При переводе текста с помощью словаря ПОМНИТЕ:

Перевод текста не является переводом всех слов в предложении подряд. Необходимо понять смысл данного предложения.

Поискам слова в словаре должно предшествовать определение его грамматической функции в предложении.

Не следует брать из словаря первое значение слова, не прочитав всю словарную статью.

Если в словаре нет значения слова, соответствующего контексту, следует выбрать наиболее близкий синоним или исходя из общего содержания самому подобрать наиболее подходящее значение.

Если в словаре нет нужного слова, его значение можно установить по строевым элементам на основе правил английского словообразования.

При переводе текстов по специальности старайтесь запоминать встречающиеся в них термины, что впоследствии значительно облегчит работу над профессионально ориентированным текстом.

РАБОТА С ГРАММАТИЧЕСКИМ МАТЕРИАЛОМ

При работе с грамматическими упражнениями курсанты должны внимательно изучить правило по конкретной теме. При изучении определенных грамматических явлений английского языка необходимо использовать схемы, таблицы из справочников по грамматике и составлять собственные конспекты к конкретному материалу, тщательно выполнять устные и письменные упражнения и готовить их к контролю без опоры на письменный вариант, чтобы обеспечить прочное усвоение грамматического материала.

Например:

Задание: Запишите предложение, переведите его и определите порядок слов в предложении.

Is he going to the University now? = Он сейчас идёт в университет?

Прочитайте и запишите предложение.

Прочитайте правило по теме «Порядок слов в предложении»

Следует отметить, что английский язык – это язык твердого порядка слов в предложении, т. е. каждый член предложения имеет свое определенное место.

Порядок слов в вопросительном предложении отличается от порядка слов в повествовательном предложении. Это отличие заключается в том, что глагол-связка, вспомогательный или модальный глагол, входящий в

состав сказуемого, ставятся в начале предложения перед подлежащим. Сказуемое, таким образом, расчленяется на две части, отделяемые подлежащим.

Когда в составе сказуемого повествовательного предложения нет вспомогательного глагола, т. е. когда сказуемое выражено глаголом в Present Indefinite и Past Indefinite, то перед подлежащим ставятся соответственно формы do/does или did, смысловые же глаголы ставятся в форме инфинитива (без частицы to) после подлежащего. Порядок остальных членов предложения остается таким же, как и в повествовательном предложении.

Составляйте опорную таблицу, схему по правилу.

Делайте упражнение согласно правилу.

РАБОТА С ТЕКСТОМ

Правильное понимание и осмысление прочитанного текста, извлечение информации, перевод текста базируются на навыках по анализу иноязычного текста, умениях извлекать содержательную информацию из форм языка. При работе с текстом на английском языке курсанты должны руководствоваться следующими общими положениями: прочитайте текст, обратите внимание на его заголовок, постарайтесь понять, о чем сообщает текст.

Затем приступайте к работе на уровне отдельных предложений. Прочитайте предложение, определите его границы. Проанализируйте предложение синтаксически: определите, простое это предложение или сложное (сложносочиненное или сложноподчиненное), есть ли в предложении усложненные синтаксические конструкции (инфинитивные группы, инфинитивные обороты, причастные обороты).

Предтекстовый этап

прочтите заголовок и скажите, о чем (о ком) будет идти речь в тексте;

ознакомьтесь с новыми словами и словосочетаниями (если таковые даны к тексту с переводом); не читая текст, скажите, о чем может идти в нем речь;

прочитайте и выпишите слова, обозначающие... (дается русский эквивалент);

выберите из текста слова, относящиеся к изучаемой теме;

найдите в тексте незнакомые слова.

Текстовый этап

прочтите текст;

выделите слова (словосочетания или предложения), которые несут важную (ключевую информацию);

выпишите или подчеркните основные имена (термины, определения, обозначения);

замените существительное местоимением по образцу;

сформулируйте ключевую мысль каждого абзаца;

отметьте слово (словосочетание), которое лучше всего передает содержание текста (части текста).

Послетекстовый этап

Этот этап ориентирован на выявление основных элементов содержания текста. Примерные задания для данного этапа:

озаглавьте текст;

прочтите вслух предложения, которые поясняют название текста;

найдите в тексте предложения для описания...;

подтвердите (опровергните) словами из текста следующую мысль...;

ответьте на вопрос;

составьте план текста;

выпишите ключевые слова, необходимые для пересказа текста;

перескажите текст, опираясь на план;

перескажите текст, опираясь на ключевые слова.

РАБОТА НАД УСТНОЙ РЕЧЬЮ

Работу по подготовке устного монологического высказывания по определенной теме следует начать с изучения тематических текстов-образцов. В первую очередь необходимо выполнить фонетические и лексические и лексико-грамматические упражнения по изучаемой теме, усвоить соответствующий лексический материал, прочитать и перевести тексты-образцы, выполнить речевые упражнения по теме. Затем на основе изученных текстов нужно подготовить связное изложение, включающее наиболее важную и интересную информацию. При этом необходимо произвести обработку материала для устного изложения с учетом индивидуальных возможностей и предпочтений курсанта, а именно:

заменить трудные для запоминания и воспроизведения слова известными лексическими единицами:

All people are proud of their magnificent capital – All people are proud of their great capital;

сократить протяженность предложений:

Culture is a term used by social scientists for a people's whole way of life – Culture is a term used for the whole people's way of life;

упростить грамматическую (синтаксическую) структуру предложений:

I felt I was being watched – I felt somebody was watching me;

произвести смысловую (содержательную) компрессию текста: сократить объем текста до оптимального уровня (не менее 12–15 предложений).

Обработанный для устного изложения текст необходимо записать в рабочую тетрадь, прочитать несколько раз вслух, запоминая логическую последовательность освещения темы, и пересказать.

При подготовке пересказа текста рекомендуем воспользоваться памяткой:

После прочтения текста разбейте его на смысловые части.

В каждой части найдите предложение (их может быть несколько), в котором заключен основной смысл этой части текста. Выпишите эти предложения.

Подчеркните в этих предложениях ключевые слова.

Составьте план пересказа.

Опираясь на план, перескажите текст,

Опираясь на ключевые слова, расскажите текст.

При пересказе текста рекомендуется использовать речевые клише:

This text is about...

The first part of text is about.../ At the beginning of text... At the end of this story...

As the conclusion of this story... I would like to tell you...

I think...

As for me...

РАБОТА НАД ПИСЬМЕННОЙ РЕЧЬЮ

Работу по подготовке письменного монологического высказывания (сочинение, изложение и др.) по определенной теме следует начать с изучения тематических текстов-образцов. В первую очередь необходимо выполнить лексические и лексико-грамматические упражнения по изучаемой теме, усвоить необходимый лексический материал, прочитать и перевести тексты-образцы, выполнить письменные речевые упражнения по теме. Затем на основе изученных текстов нужно написать письменное изложение, включающее наиболее важную и интересную информацию. При этом необходимо произвести обработку материала для изложения с учетом индивидуальных возможностей и предпочтений студента, а именно:

заменить трудные для написания слова известными лексическими единицами: All people are proud of their magnificent capital – All people are proud of their great capital;

сократить протяженность предложений:

Culture is a term used by social scientists for a people's whole way of life – Culture is a term used for the whole people's way of life;

упростить грамматическую (синтаксическую) структуру предложений:

I felt I was being watched – I felt somebody was watching me;

произвести смысловую (содержательную) компрессию текста: сократить объем текста до оптимального уровня (не менее 12–15 предложений).

Обработанный текст необходимо записать в рабочую тетрадь, прочитать несколько раз вслух и проверить грамматические, лексические, синтаксические ошибки.

После прочтения текста разбейте его на смысловые части.

В каждой части найдите предложение (их может быть несколько), в котором заключен основной смысл этой части текста. Выпишите эти предложения.

Подчеркните в этих предложениях ключевые слова.

Составьте тезисный план пересказа.

Опираясь на план, перескажите текст.

Опираясь на ключевые слова, запишите текст.

При написании пересказа текста рекомендуется использовать речевые клише: This text is about...

The first part of text is about.../ At the beginning of text... At the end of this story...

As the conclusion of this story... I would like to tell you...

I think... As for me...

Study the 'Prefixes of location'

Prefix	Meaning	Examples
trans-	= across	transmission, transfer
inter-	=between	interconnected, interactive
intra-	= within	intranet
extra-	=beyond =outside =in addition to	extramemory, extranet
tele-	= over a distance	teleconferencing, teleworking

1. Use the words from the table 'Prefixes of location' to complete these sentences and make any necessary changes:

1. Data can be wired or wireless.
2. An is a private network restricted to a company's internal use.
3. The Internet consists of millions of computers in a global network.
4. enables users in different places to talk to and see each other.
5. (e.g. ROM or flash memory) is able to hold data when switched oil.
6. is increasing, so more and more people have an office at home and aren't commuting to an office.
7. is a network that allows communication between a company and the customers it deals with.



Study the 'Prefixes of size'

Prefix	Meaning	Examples
multi-	=many	multimedia, multitasking
mega-, giga-	=large	megabyte, gigabyte
super-	=large, great	supercomputer
micro-	=very small	microbrowser
semi-	=half, partly	semiconductor

2. Use the words from the table ‘Prefixes of size’ to complete these sentences and make any necessary changes:

1. _____ is a web browser designed for small screens or hand-held devices.
2. A__ equals approximately one million bytes.
3. _____ is an action when you have more than one application open at the same time.
4. The introduction of technology revolutionized the computer industry.
5. A__ is a powerful computer that can process large amounts of data very quickly.
6. Each memory module contains a _____ of RAM, or 1024 megabytes, to be precise.
7. The next generation of computers will be _____ machines that allow users to control and manipulate sound, video, text and graphics.

Study the ‘Negative prefixes’

Negative prefix	Meaning	Examples
un-	=not	unmagnitized
in-		incomplete
im-		impossible
il-		illegal
ir-		irregular
non-		non-programmable
mis-	=bad, wrong	misuse, misunderstand
mal-		malfunction
dis-	=opposite action	disconnect
de-	=reduce, reverse	decode, decrypt, debug
down-	=to show that smth is bad or to make smth less important	downtime, downgrade

Study other common prefixes in IT

Positive prefix	Meaning	Examples
re-	=do again	reorganize, reboot
co-/ com-/ con-	=with	connect, compatible
over-	=too much	overload
Positive prefix	Meaning	Examples
up-	=at or to a higher level of activity	update, upgrade, upload
e-	=electronic	e-book, e-learning
cyber-	=things related to computer world	cyberspace, cybercriminal

3. Match the prefixes in column A to the correct endings in column B.

column A	column B
DOWN-	-reader, -commerce, -mail
RE-	-time, -load
E-	-crime, -space, -slacking
UP-	-write, -boot, -set, -usable
CYBER-	-grade, -date, -load

4. Complete these definitions with the words from Exercise 3:

1. _ is to modify data in a file so that it has the most recent information.
2. _ is the buying and selling of products and services over the Internet.
3. _ is when a network or a computer is not working or unavailable for use.
4. _ is to start the computer again.
5. _ is the environment in which communication over computer networks occurs.
6. _ is to add or replace hardware or software in order to expand the computer's power.
7. _ is using a company's Internet access for activities which are not work-related, e.g. emailing friends, playing games, etc.

5.Fill the gaps with the correct prefix from the box:

ir- , in- , up-, re- , dis- , down-, de- , con-

1. The printer was not working because someone had connected it by mistake.
2. As the results are _____ regular, the program will have to be _____ written.
3. Flash drives are _____ expensive and usable.
4. Once you finish your program, you will have to test it and bug to remove all the mistakes.
5. If your mobile device has an Internet _____ nection, you can load apps directly onto it.
6. Did you buy a full version of the OS or just an _____ grade?
7. If your computer crashes, you may have to boot it.



Reading and Speaking



1. Study the following words and combinations:

throughout [θru:'aut]- через, повсюду

decrease [di:'kris] - уменьшать

overcome [ouvə'kʌm] – преодолеть, победить

offence [ə'fens] – правонарушение, преступление

offender [ə'fend ə] – правонарушитель

perpetrator [ˈpɜːpətreɪtər] - правонарушитель
security [sɪˈkjʊərəti] – безопасность
protection [prəˈtekʃ(ə)n] – защита
boundary [ˈbaʊnd(ə)rɪ] - граница
network [ˈnetwɜːk] - сеть
access [ˈækses] – доступ, подход
measurement [ˈmeʒəmənt] - измерение
target [ˈtɑːɡɪt] – цель, мишень
launch [lɔːntʃ] - запускать
malicious [məˈlɪʃ.əs] – злонамеренный, вредоносный
unauthorized access [ʌnˈɔːθ(ə)raɪzdˈækses] – несанкционированный доступ
misuse [ˌmɪsˈjuːs] – неправильное применение, злоупотребление
particular [pəˈtɪkjələ, -kju-] – определенный, отдельный
confidentiality [ˌkɒnfɪdənt(ə)ʃɪˈæləti] – конфиденциальность
integrity [ɪnˈtegrəti] (data [ˈdeɪtə] ~) – целостность данных (сервис контроля доступа, гарантирующий, что принятые по сети данные не были изменены при пересылке)
availability [əˌveɪləˈbɪləti] – доступность
information assets [ˌɪnfəˈmeɪʃ(ə)n ˈæsets] – информационные ресурсы, ресурсы обработки информации
achieve [əˈtʃiːv] – добиваться, достигать
application [ˌæplɪˈkeɪʃ(ə)n] – применение, использование, употребление; приложение
awareness [əˈweənəs] – осведомлённость
combat [ˈkɒm.bæt] – бороться
cyber patrols [ˈsaɪbə pəˈtrəʊlz] – киберпатрулирование
dark web [dɑːk wɛb] – тёмная сеть
cyber threat intelligence [ˈsaɪbəθret ɪnˈtelɪdʒəns] – разведка киберугроз
threat hunting [θret ˈhʌntɪŋ] – охота за угрозами
digital evidence [ˈdɪdʒɪtəl ˈeɪvɪdəns] – цифровые следы (улики)
cyber hygiene [ˈsaɪbə ˈhaɪdʒiːn] – кибергигиена
continuous training [ˈsaɪbə ˈhaɪdʒiːn] – непрерывное обучение
preventive measures [prɪˈventɪv ˈmeʒəz] – профилактические меры
sophisticated attacks [səˈfɪstɪkeɪtɪd əˈtæks] – сложные, составные атаки

2. Read and translate the text:



Part I

Cybercrime prevention is one of the main present-day social problems throughout the world. Cybercrime prevention is

an effort to decrease and overcome computer related crime.

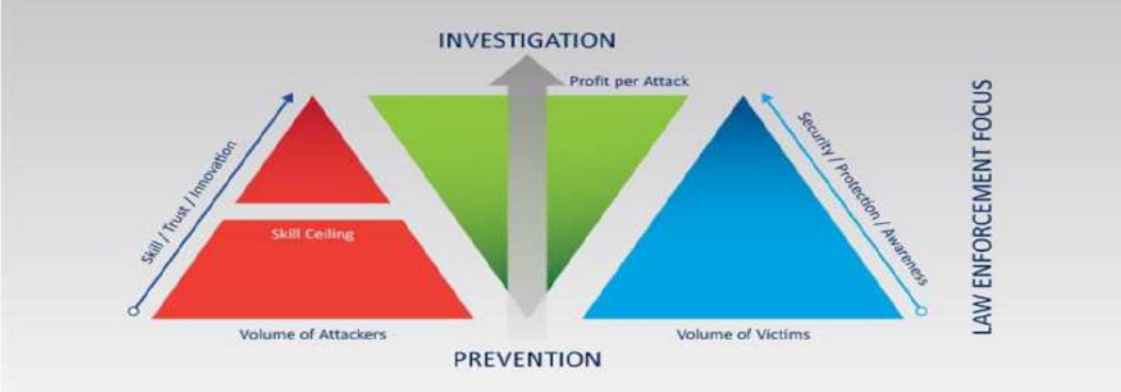
Cybercrime is global in nature. It is not limited by national borders. Cybercrimes and their perpetrators can occur outside the national jurisdictions they affect. For example, a computer virus may be written in the Far East but cause damage in Latin America, or a download site may be located in Russia but accessible in Brazil. This creates as many challenges for accurately measuring cybercrime as it does for identifying and prosecuting criminals – especially where other jurisdictions have different laws.

Cybercrime, or computer-oriented crime, is crime that involves a computer and a network. There are three categories:

- crimes that target a computing device, such as to gain access to a network;
- crimes in which a computer is used as a weapon, such as to carry out a denial of service (DoS) attack;
- crimes in which a computer is used as an accomplice to a crime, such as using a computer to store illegally obtained data.

Police efforts to prevent cybercrime include various preventive measures. Cybercrime investigators conduct cyber patrols to monitor online spaces, tracking dark net activity for illegal transactions. Analysts collect and evaluate cyber threat intelligence, identifying potential risks and launching operations to detect them. Collaboration with cybersecurity firms enhances their ability to detect and respond

to sophisticated attacks. Specialized investigation departments focus on collecting digital evidence while adhering to strict supply chain protocols. International cooperation is critical to combating transnational cybercrime. Police also stress the importance of practicing cyber hygiene to reduce citizens' vulnerability. Ongoing training allows officers to stay up-to-date with evolving cybersecurity trends and technologies.



According to the Doctrine of Information Security of Russia, signed by President Vladimir Putin in December 2016, the main direction of ensuring information security is to strengthen the protection of citizens and territories from emergencies caused by cyberattacks. In essence, cybercrime falls under Chapter 28 of the Criminal Code of the Russian Federation (Articles 272–274.1). Federal Law No. 111 (April 2018) establishes criminal liability for fraud using electronic means of payment (credit/debit cards), as well as other “computer fraud” (Articles 159.3 and 159.6 of the Criminal Code of the Russian Federation, respectively).



Part II

There are some ways to prevent cybercrimes are explained below:

- 1. By Using Strong Passwords:** Maintain different password and username

combinations for each account, and resist the urge to write them down. Weak passwords can be easily hacked. The following password combinations can make your password more vulnerable to hacking:

- Using keyboard patterns for passwords. e.g. – wrtdghu
 - Using very easy combinations. e.g. – sana 2020, jan2032
 - Using Default passwords. e.g. – Hello123, Madhu123
 - Keeping the password the same as the username. e.g. – Madhu_Madhu
2. **Keep social media private:** Make sure your social media profiles are set to private. Check your security settings once. Be careful with the information you post online. Once you post something online, it's there forever.
 3. **Protect your storage data:** Protect your data by using encryption for important diplomatic files such as financial and tax files.
 4. **Protecting your identity online:** We must be very careful when providing personal information online. You should be careful when providing personal identifiers such as your name, address, phone number, and financial information online. Make sure that websites are safe when you shop online, etc. This includes enabling privacy settings when using social networking sites.
 5. **Keep changing passwords frequently:** When it comes to passwords, don't stick to one password. You can change your password frequently, making it difficult for hackers to access your password and stored data.
 6. **Securing your Phones:** Many people are unaware that their mobile devices are also unsafe for malicious software such as computer viruses and hackers. Make sure that you download applications only from trusted sources. Do not download software/apps from unknown sources. It is also important to keep your operating system up-to-date. Be sure to install antivirus software and use a secure lock screen. Otherwise, anyone can access all your personal information on your phone if you

lose it. Hackers can track your every move by installing malware via your GPS.

7. **Call the right person for help:** Try not to be nervous if you are a victim. If you come across illegal online content such as child exploitation, or if you think it is a cybercrime, identity theft or commercial fraud, as with any other crime, report it to your local police.
8. **Protect your computer with security software:** There are many types of security software that are needed for basic internet security. Security software includes firewall and antivirus software. A firewall is usually your computer's first line of security. It controls who communicates what and where on the Internet. So it's best to install security software from trusted sources to protect your computer.

EXERCISES

Цель заданий - активизация нового лексического материала, развитие навыков монологической и диалогической речи.

3. **Read and translate the following groups of words with the common root:**

Crime – criminal – criminality – criminology - incriminate

Offense – offensive - inoffensive – offensively - offensiveness

Punish – punishable – unpunishable - unpunished - punisher – punishment

Violate – violation – violator – violence – violent – violently.

Code – codify – codification – decode – decoder – codicil

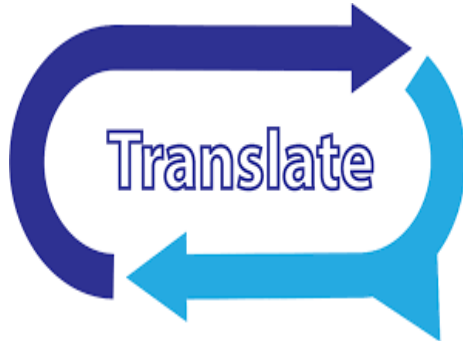
Prevent – prevention – preventive – preventative – preventer – preventable

4. **Discuss the questions:**

1. What is cybercrime?
2. What do you think about cybercrime prevention?
3. What categories of cybercrime have you known from the text?



4. What measures do police agencies use in order to combat cybercrime?
5. What do you think about the Russian Doctrine of Information Security?
6. Are there any ways to protect from cybercrimes? Share your opinion.



5. Translate from English into Russian:

To decrease and overcome crime, to obtain information, to identify offenders, to commit crime, to bring to justice, to conduct cyber patrol, to monitor online spaces, dark web activities, illicit transactions, cyber threat intelligence, to detect and respond to sophisticated attacks, digital evidence, to reduce citizen vulnerability.

6. Translate from Russian into English:

Предотвращение киберпреступлений, раскрытие киберпреступлений, разведка киберугроз, цифровые следы, профилактические меры, изменить пароль, хранить данные, получить доступ к базе данных



7. Translate some word combinations:

Police department, police force, law enforcement officials, network access, password combinations, sophisticated attacks, digital evidence collection, cyber threat intelligence, a denial-of-service (DoS) attack.

8. Make word combinations; use them in the sentences of your own:

A

bring to
protect
download
conduct
monitor

B

digital evidence
cyber patrol
justice
citizen vulnerability
cybercrime

reduce
collect
solve
launch

cyber threat operations
online spaces
software APPs
personal data

9. Choose the right definition of the term *cybercrime prevention*:

- a) an intervention in the mechanisms that cause cybercrime;
- b) the anticipation, recognition, and appraisal of a cybercrime risk and the initiation of action to remove or reduce it;
- c) an effort to decrease and overcome cybercrime.



10. Complete the sentences:

1. Cybercrime prevention is an effort to ...
2. ... conduct cyber patrols to monitor online spaces, looking over dark web activities for illicit transactions.
3. Analysts gather and assess cyber threat paying great attention to the problem of
4. Weak passwords can be easily
5. Security software includes firewall and
6. is critical to combating transnational cybercrime.

11. Comment the picture:

EVERYONE PLAYS A ROLE IN PREVENTING CYBER CRIME

These steps can help protect you from cyber criminals.



Follow cybersecurity best practices and guidelines.



Become cyber aware through self-education or training.



Use digital and physical security methods.



Actively manage your social media settings.



Keep your software updated.



Talk to your children about the threats.



Constantly change your passwords.



Sources: Hashed Out, Norton

12. Match the columns:

1. security	a. internal consistency or lack of corruption in electronic data
2. protection	b. prohibited by a law, a rule
3. confidentiality	c. the action of protecting someone or something, or the state of being protected
4. integrity	d. the wrong or improper use of something
5. availability	e. the quality of being available
6. unauthorised	f. the state of being free from danger or threat
7. access	g. a set of rules or a promise that limits access or places restrictions on certain types of information
8. misuse	h. the action or process of obtaining or retrieving information stored in a computer's memory
9. malicious	i. intended to cause damage to a computer system, or to steal private information from a computer system

10. storage	j. a useful or valuable possession or quality of a country, organization, or person
11. media	k. the internet, newspapers, magazines, television, etc., considered as a group
12. resources	l. the amount of space a computer has for keeping information



13. Make dialogues using these questions. Then reproduce:

1. What are the most common types of cyber threats?
2. How can individuals protect their personal information online?
3. What are some examples of strong passwords?
4. How does encryption work and why is it important?
5. What are the signs that your computer or device might be infected with malware?
6. How can you recognize a phishing email?
7. What steps can businesses take to improve their cybersecurity?
8. What is two-factor authentication and how does it enhance security?
9. How do firewalls help protect your network?
10. What should you do if you suspect your personal information has been compromised?
11. What role does antivirus software play in cybersecurity?
12. How can you secure your home Wi-Fi network?
13. What are the risks of using public Wi-Fi networks?
14. How can you protect your mobile devices from cyber threats?

15. What is the role of a cybersecurity professional?
16. How has cybersecurity evolved over the years?
17. What are some major cybersecurity incidents that have occurred recently?
18. How can you safely dispose of old computers and devices?
19. What is ransomware and how can you protect against it?
20. How do cybercriminals use social engineering to their advantage?
21. What are the legal implications of cybercrime?
22. How can organizations prepare for and respond to a cyber-attack?
23. What is the Internet of Things (IoT) and how does it affect cybersecurity?
24. What are some best practices for maintaining good cybersecurity hygiene?

14. Translate into English:

Зачем нужен брандмауэр?

Брандмауэр защищает компьютер от проникновения хакеров или вредоносных программ (например, червей) по сети или через Интернет. Брандмауэр также помогает предотвратить отправку программ на другие компьютеры. Даже если вы считаете, что на компьютере нет ничего интересного для посторонних, вредоносные программы (сетевые черви) могут сделать ваш компьютер полностью неработоспособным, а также кто-то может воспользоваться им для рассылки подобных программ или вирусов другим компьютерам без вашего ведома.





Present Simple vs Present Progressive

1. Complete the sentences using

a. Present Simple or Present Progressive (Active Voice) :

1. Commonly we (to use) C++ and Java Script.
2. At the moment we (to develop) a Web-based project.
3. He always (to ask) the users what they need from the system.
4. Right now I (to try) to learn how to use this application program properly.
5. Today the technicians (to set up) a wireless network at our department.
6. - How much time you (to spend) on surfing the Web each day? - About an hour.
7. Steve is a database expert so he usually (to deal) with data processing.

PRESENT CONTINUOUS TENSE(PASSIVE VOICE)

Structure: Obj+ Helping verb +being+V3+by+S

Examples

1) John is writing a letter.

A letter is being written by John.

2) They are burning letters.

Letters are being burnt by them.

b. Present Simple or Present Progressive (Passive Voice):

1. Active Server (to use) for this project because it (to be) Web-based.
2. Instructions written in a high-level language always (to transform) into a machine code.
3. Your information (to send) by e-mail now.
4. - What this database (to use) for? - It (to use) for storing our financial information.
5. The results of his numerous experiments often (to refer to).
6. Details of every repair (to download) to a company's mainframe every day.
7. At the moment the departments of the company (to reorganize).



Present Simple vs Future Simple

2. Complete the sentences using the Present Simple or Future Simple (Active or Passive Voice):

1. If you (to add) memory to a computer, it (to run) faster.
2. Files and peripherals (to share) by all the workers when our company (to set up) a LAN.
3. If you (not to save) your document, you (to loose) the information.
4. The keyboards (not to use) in future if voice-recognition systems (to become) more sophisticated.

5. If David (not to have) enough computer knowledge, he (to need) to hire a qualified technician to install a LAN.
6. If your network (not to protect), unauthorized users (to break) into the system easily.
7. If the central server (to fail), the whole network (to fail).

Past Simple or Past Continuous?

I home very late last night.

- a) came b) was coming

Past Progressive vs Past Simple

4. Complete the sentences using

a. Past Progressive or Past Simple (Active Voice) :

1. When we (to do) a Google Search, we (to find) the answer very quickly.
2. When Sam (to prepare) his report, he (to use) a library database.
3. They (to play) online games when we (to come).
4. When Trevor Baylis (to hear) about communication problems in Africa, he (to decide) to build a radio without batteries.
5. While Nick (to edit) complex graphics, Phillip (to develop) a new mobile application.
6. Last year he (to study) such programming languages as PASCAL and C++.
7. Which language you (to use) when you (to write) a program?

Passive voice

Simple Past

and

Past Progressive

As we know the finite form of the verb sets the tense in the sentence.

Passive Voice Simple Past.

When we write sentences in Passive voice and the structure is Simple Past, we use the be verb in past (was / were) according to the subject + Past Participle.

Rita drove the car. Active voice

b. Past Progressive or Past Simple (Passive Voice) :

1. The first mechanical adding machine (to invent) by B. Pascal.
2. The laboratory equipment (to install) all day yesterday.

3. In 1945 the concept of the stored program (to work) out by Dr. Newman.
4. While the program (to test), some bugs (to detect).
5. Different operating systems (to discuss) at 4 o'clock seminar yesterday.
6. When the presentation on network topology (to make)?



Present Perfect vs Past Simple

5. Complete the sentences using

a. Present Perfect or Past Simple (Active Voice) :

1. John (to be) a computer technician for the last three years.
2. In September 2015 Ann (to begin) a University course in computer science.
3. I (to become) interested in computers while I (to be) at school.
4. How long you (to have) this play station?
5. The secretary (to email) three letters this morning.
6. Jenny already (to install) a new program.
7. There (to be) quite a few changes since the new owner (to come) to the company.



b. Present Perfect or Past Simple (Passive Voice) :

1. The first working version of the World Wide Web (to complete) in 1990.
2. The drives (to upgrade) by Phillip recently.
3. The application (not to reinstall) yet.
4. The new system (to test) for a week?
5. When Basic (to develop)?

6. Microcomputers (to apply) since 1970s.
7. The first e-mail (to send) in 1972?



5. Correct the mistakes in the following sentences. Pay attention to the use of Simple, Progressive, Perfect (Active and Passive Voice) tense forms :

1. Marconi has invented a wireless telegraph system in 1896.
2. Since 2014 Jane was working for MediaGroup, the biggest company in the region.
3. Professor Jonson was given a lecture on information technology at 11 a.m. tomorrow.
4. All the articles on biosensors will be translated by last Friday.
5. A new model of the printer is showing tomorrow.
6. System errors affects the computer or its peripherals.
7. Were they studying the operating systems next term?
8. Have you passed the exam on programming languages by 5 p.m. tomorrow?
9. We has replaced copper lines with fiber-optic cables.
10. Semiconductors were made it possible to develop much smaller portable radios.
11. The first version of Microsoft Windows were being introduced in 1985.
12. When I calling my friend he compiled a program.
13. Alexander will studied C and C ++ by next year.
14. Pavel is often being asked to make a report at conferences.



6. Complete the sentences using the correct Simple, Progressive, Perfect (Active and Passive) tense forms of the verbs in brackets:

1. A permanent storage of both data and programs (to provide) by storage devices.
2. In the past cars (to paint) by hand, but now they (to paint) using computer-controlled sprays.
3. Car components (to assemble) by robotic machines in modern factories.
4. Intel (to design) the first microprocessor in 1971.
5. While Pat (to analyze) the problem, Tess (to design) a flowchart.
6. After software developers (to write) a program, they (to test) it.
7. They (to study) operating systems next term?
8. The Professor (to deliver) a lecture at 10 pm tomorrow.
9. I (to discuss) these problem with our network architect as soon as I (to see) him.
10. He (to finish) the work on the term paper by next week.

7. Translate the following sentences into English:

1. Самый простой и наименее дорогой способ соединить компьютеры в вашем доме - это установить беспроводную сеть, которая использует радиоволны вместо проводов.

2. Глобальные сети соединяют компьютеры линиями связи и программными протоколами, позволяя пользователям обмениваться данными быстро и надежно.



3. Если ты введешь правильный пароль, то у тебя будет доступ к сети.
4. В прошлом телефонные сообщения передавались по металлическим проводам, а сейчас передаются по оптоволоконным кабелям.
5. - Мой ноутбук подключается к Wi-Fi, но сила сигнала очень низкая. Что вы можете посоветовать? - Используйте свой компьютер максимум тридцать метров от маршрутизатора.

LISTENING AND SPEAKING



Scan the QR code and listen the text «Cybercrime». Complete the sentences:

I don't think people understand cyber-crime. It's only _____ . In the future, it's going _____ problem. There have already been a few amazing examples. A few years _____ Internet in Latvia was attacked by another country. Cyberspace has _____ battleground. Countries _____ other. If there's a war, it's possible one country could attack the other country's Internet. This _____ communication, transport, etc would stop. It would cause

_____ to hospitals and other important buildings. But cyber-crime is happening _____ people. Have you _____ phishing? That's with a 'ph' not 'f'. You really need to be very careful about what information _____.

2. Write five GOOD questions about cybercrime in the table. Do this in pairs. Each cadet must write the questions on his / her own paper. When you have finished, interview other cadets. Write down their answers.

	<i>Questions</i>	<i>Cadet 1</i>	<i>Cadet 2</i>	<i>Cadet 2</i>

Now return to your original partner and share and talk about what you found out. Change partners often. Make mini-presentations to other groups on your findings.

READING AND DISCUSSION



Read and discuss the following texts:

Text A

INTERNET SECURITY

The Internet provides a wide variety of opportunities for communication and development, but unfortunately, it also has its dark side. Crackers, or black-hat hackers, are computer criminals who use technology to perform a variety of crimes: virus propagation, fraud, intellectual property theft, etc. Internet-based crimes include scam, email fraud to obtain money or valuables and phishing, bank fraud, to get banking information such as password of Internet bank account or credit card details. Both crimes use emails or websites that look like those of real organizations. Due to its anonymity, the Internet also provides the right environment for cyber stalking, online harassment or abuse, mainly in chat rooms or newsgroups. Piracy, the illegal copying and distribution of copyrighted software, information, music and video files, is widespread.

Text B

Malware (malicious software) is software created to damage or alter the computer data or its operations. These are main types.

- **Viruses** are programs that spread by attaching themselves to executable files or documents. When the infected program is run, the virus propagates to other files or programs on the computer. Some viruses are designed to work at a particular time or on a specific date, for example on 31 Friday 13? An email virus spreads by sending a copy of itself to everyone in an email address book.

- **Worms** are self-copying programs that have the capacity to move from one computer to another without human help, by exploiting security flaws in computer networks. Worms are self-contained and don't need to be attached to a document or program the way virus do.

- **Trojan horses** are malicious programs disguised as innocent-looking files or embedded within legitimate software. Once they are activated, they may affect

the computer in a variety of ways: some are just annoying, others are more ominous, creating a backdoor to the computer which can be used to collect stored data. They don't copy themselves or reproduce by infecting other files.

- **Spyware**, software designed to collect information from computers for commercial or criminal purposes, is another example of malicious software. It usually comes hidden in fake freeware or shareware applications downloadable from the Internet.

TEXT C

Preventative tips

- Don't open email attachments from unknown people; always take note of the file extension.
- Run and update antivirus programs, for example virus scanner.
- Install a firewall, a program designed to prevent spyware from gaining access to the internal network.
- Make backup copies of your files regularly.
- Don't accept files from high-risk sources.
- Use a digital certificate, an electronic way of proving your identity, when you are doing business on the Internet. Avoid giving credit card numbers.
- Don't believe everything you read on the Net. Have a suspicious attitude toward its contents.

1. Identify the Internet crimes sentences (1-6) refer to. Then match them with the advice below (a-f)

1. Crackers try to find a way to copy the latest game or computer program.
2. A study has revealed that half a million people will automatically open an email they believe to be from their bank and happily send off all their security details.

3. This software's danger is hidden behind an attractive appearance. That's why it is often wrapped in attractive packages promising photos of celebrities like Anna Kurnikova or Jennifer Lopez.

4. There is a particular danger in Internet commerce and emails. Many people believe they have been offered a special gift only to find out later they have been received.

5. Nimda spreads by sending infected emails and is also able to infect websites, so when a user visits a compromised website, the browser can infect the computer.

6. Every day, millions of children spend time in the Internet chat rooms talking to strangers. But what many of them don't realize is that some of the surfers chatting with them may be sexual predators.

a) People shouldn't buy cracked software or download music illegally from the Internet.

b) Be suspicious of wonderful offers. Don't buy if you are not sure.

c) It's dangerous to give personal information to people you contact in chat rooms.

d) Don't open attachments from people you don't know even if the subject looks attractive.

e) Scan your email and be careful about which website you visit

f) Check with your bank before sending information.

2. Fill in the gaps in these security tips with words from the box

Digital certificate malware virus scanner spyware firewall antivirus

1. Malicious software,, can be avoided by following some basic rules.

2. Internet users who like cybershopping should get a, an electronic identity card.

3. To prevent crackers from breaking into your data, install a It will protect you from

4. If you have been hit by a, don't panic! Download a clean-up utility and always remember to use an program, for example, a virus

3. Discuss the questions:

1. What do you do to prevent computer infections?
2. Do you keep your virus protection update?



The Internet has many web sites where you can get free advice and software. **What should you do to improve your computer security?**

Cracker, virus propagation, fraud, scam, phishing, cyber stalking, online harassment, malware, worm, disguise, spyware, firewall, suspicious, to avoid, attachment.

4. Do a brief quiz below to test your knowledge about Internet Security.

Internet Security Quiz

1. **Viruses, worms, and Trojans are all examples of ____.**
 - a) *pets that can be seen in a zoo;*
 - b) *phishing;*
 - c) *malware;*
 - d) *scareware.*
2. **What is malware?**
 - a) *hardware that controls a computer without the user's knowledge;*
 - b) *faulty software;*
 - c) *hardware that detects and removes viruses from a computer;*
 - d) *software created to cause harm to a computer system or data.*
3. **What is a virus?**
 - a) *a program that makes user feel unwell;*
 - b) *a program which replicates itself and spreads to other computers via attachments;*
 - c) *a program that monitors user's activities;*
 - d) *a program that stops a computer from working.*
4. **Malware can be downloaded through ____.**
 - a) *spam emails;*
 - b) *infected computers;*
 - c) *unsafe websites;*

d) *all above.*

5. What is spyware?

a) *malware that harms your computer by deleting or altering files and stopping programs from running;*

b) *malware that tricks you into thinking it's software you need to buy;*

c) *malware that collects information from a computer and sends it to cybercriminals;*

d) *malware that pretends to be a trusted file.*

6. What is the purpose of phishing?

a) *controlling computer without user's knowledge;*

b) *sending a program that replicates itself and spreads to other computers via attachments;*

c) *sending a malicious link disguised as a security warning;*

d) *sending an email that is designed to trick the user into giving away personal information.*

7. What should be used to remove malware from a computer?

a) *a filter;*

b) *antivirus software;*

c) *encryption;*

d) *a firewall.*

8. How can one safeguard against phishing?

a) *Install a firewall.*

b) *Don't believe everything you read on the Net.*

c) *Make backup copies of your files regularly.*

d) *Don't follow a link from the email you don't trust.*

9. What is the purpose of a firewall?

a) *to detect viruses on a system and prevent them from attacking it and spreading;*

b) *to prevent unauthorized connections coming into and out of a network;*

c) *to prevent from illegal copying and distribution of copyrighted software, information, music, etc.;*

d) *to prevent a hacker from logging on to the computer.*

10. Which of the following is a simple way to stay safe online?

a) *Don't open email attachments from unknown people.*

b) *Run and update antivirus programs.*

c) *Don't give out personal information.*

d) *All above.*

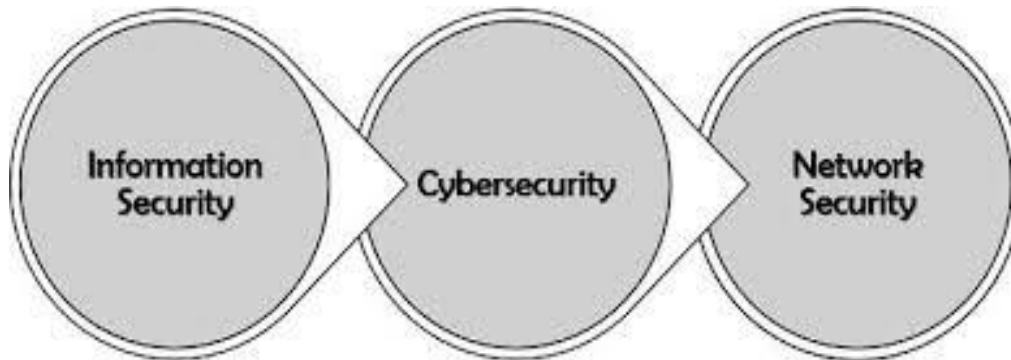
5. Match the words that go together in the text “Internet Security”. Check that you know the meanings of the phrases. Then complete the sentences below.

1) commit	a) program
2) unauthorized	b) firewalls
3) phishing	c) access
4) antivirus	d) email
5) security	e) information
6) self-replicating	f) crimes
7) built-in	g) software
8) verify	h) warning

1. Virus is a ___ that interferes with a computer’s hardware or operating system.
2. Some computers come with security software. Windows 7 and Mac OS X already have ___.
3. ___ can protect you from infected email attachments, Internet worms, and fake websites.
4. Cybercriminals ___ by stealing people’s money or their identity data.
5. ___ is disguised to look like official communications from a legitimate website.
6. Once installed, spyware programs can have ___ to user’s activities - such as Internet surfing habits and browser activity.
7. If you ___ about your identity on a fake website, scammers can use these details to withdraw money from your bank account.
8. When you visit a malicious site your browser will display a red ___ message.

Text D

How different is network security from computer security?



Network security consists of the provisions made in an underlying computer network infrastructure, policies adopted by the network administrator to protect the network and the network-accessible resources from unauthorized access and the effectiveness (or lack) of these measures combined together. Securing network infrastructure is like securing possible entry points of attacks on a country by deploying appropriate defense.

Computer security is more like providing means of self-defense to each individual citizen of the country. The former is better and practical to protect the civilians from being exposed to the attacks. The preventive measures attempt to secure the access to individual computers the network itself thereby protecting the computers and other shared resources such as printers, network-attached storage connected by the network. Attacks could be stopped at their entry points before they spread. As opposed to this, in computer security the measures taken are focused on securing individual computer hosts. A computer host whose security is compromised is likely to infect other hosts connected to a potentially unsecured network.

A computer host's security is vulnerable to users with higher access privileges to those hosts. Network security starts from authenticating any user. Once authenticated, firewall enforces access policies such as what services are allowed to be accessed by the network users. Though effective to prevent

unauthorized access, this component fails to check potentially harmful contents such as computer worms being transmitted over the network. An intrusion prevention system (IPS) helps detect and prevent such malware. IPS also monitors for suspicious network traffic for contents, volume and anomalies to protect the network from attacks such as denial of service.

Communication between two hosts using the network could be encrypted to maintain privacy. Individual events occurring on the network could be tracked for audit purposes and for a later high-level analysis. Honeypots, essentially decoy network-accessible resources, could be deployed in a network as surveillance and early-warning tools. Techniques used by the attackers that attempt to compromise these decoy resources are studied during and after an attack to keep an eye on new exploitation techniques. Such analysis could be used to further tighten security of the actual network being protected by the honeypot.

1. Put down problem questions to the text. Ask each other in class to get the true answers.

2. Translate the following equivalents into English using the text:

Безопасность сети, условия, компьютерная сетевая инфраструктура, лежащая в основе, доступные через сеть ресурсы, неразрешенный доступ, при менять соответствующую защиту, превентивные меры, таким образом, остановка атаки в пункте ввода, распространяться, в отличие от, уязвимый, сервер, авторизация пользователя, потенциально вредная информация, 36 компьютерные вирусы, отказ в обслуживании, информация может быть закодирована, ловушки, приманки, наблюдение, улучшать безопасность.

3. Write the question tags for the statements:

1. He hasn't read the program yet, has he?

2. The preventive measures attempt to secure the access to individual computers, _____?
3. Crime ware can wait for the user to log into their account at a financial institution, _____?
4. Crime ware represents a growing problem in network security, _____?
5. This policy wasn't adopted by the network administrator, _____?
6. This system will protect the network from attacks such as denial of service, _____?
7. Complexity theory seeks to determine the minimum number of components needed for these systems, _____?
8. Much attention, both theoretical and practical, has been given to the design, _____?
9. This standard wasn't used to evaluate computer systems being considered for the data processing, _____?



Text E

Threats to Network Security

Vulnerability is a weakness that is inherent in every network and device. This includes routers, switches, desktops, servers, and even security devices themselves. Threats are the people eager, willing, and qualified to take advantage of each security weakness, and they continually search for new exploits and weaknesses. There are four primary classes of threats to network security.

Unstructured threats consist of mostly inexperienced individuals using easily available hacking tools such as shell scripts and password crackers. Even unstructured threats that are only executed with the intent of testing and challenging a hacker's skills can still do serious damage to an individual or an organization. For example, if an external company website is hacked, the

integrity of the company is damaged. Even if the external website is separate from the internal information that sits behind a protective firewall, the public does not know that. All the public knows is that the site is not a safe environment to conduct business.

Structured threats come from hackers who are more highly motivated and technically competent. These people know system vulnerabilities and can understand and develop exploit code and scripts. They understand, develop, and use sophisticated hacking techniques. These groups are often involved with the major fraud and theft cases reported to law enforcement agencies.

External threats can arise from individuals or organizations working outside of a company. They do not have authorized access to the computer systems or network. They work their way into a network mainly from the Internet or dialup access servers.

Internal threats occur when someone has authorized access to the network with either an account on a server or physical access to the network.

As the types of threats, attacks, and exploits have evolved, various terms have been coined to describe different groups of individuals. Some of the most common terms are as follows:

- Hacker is a general term that has historically been used to describe a computer programming expert. More recently, this term is commonly used in a negative way to describe an individual who attempts to gain unauthorized access to network resources with malicious intent.
- Cracker is the term that is generally regarded as the more accurate word that is used to describe an individual who attempts to gain unauthorized access to network resources with malicious intent.
- Phreaker is an individual who manipulates the phone network to cause it to perform a function that is normally not allowed. A common goal of phreaking is breaking into the phone network, usually through a payphone, to make free long-distance calls.

- Spammer is an individual who sends large numbers of unsolicited email messages. Spammers often use viruses to take control of home computers to use these computers to send out their bulk messages.

- Phisher is an individual who uses e-mail or other means in an attempt to trick others into providing sensitive information, such as credit card numbers or passwords. Phishers masquerade as a trusted party that would have a legitimate need for the sensitive information.

- White hat is a term used to describe individuals who use their abilities to find vulnerabilities in systems or networks and then report these vulnerabilities to the owners of the system so that they can be fixed.

- Black hat is another term for individuals who use their knowledge of computer systems to break into systems or networks that they are not authorized to use.

1. Discuss the questions using the information from the text :

1. What is vulnerability in network security?
2. Who are considered to be threats to network security?
3. How dangerous can unstructured threats be to users?
4. What is the difference between structured and unstructured threats?
5. How can external threats get access to computer systems or networks?
6. What people can be considered internal threat?
7. What is the most accurate term to describe an individual attempting to gain unauthorized access to network resources with malicious intent?
8. What is a common goal of phreaking?
9. How do phishers usually get the information they need?
10. What is the goal of white hats' activity?





2. True or false?

1. Exploit code and scripts are often developed by inexperienced individuals.
2. It is impossible to get access to computer systems through the Internet.
3. Hacker is a term that has recently been used to describe a computer programming expert.
4. A common goal of spammers is to get sensitive information.
5. Black hats do not help to fix vulnerabilities.

3. Use the words and expressions from the box to complete the sentences.

<i>password cracker</i>	<i>router</i>	<i>white hat</i>	<i>phone network</i>	<i>damage</i>
<i>sensitive information</i>	<i>exploit</i>	<i>black hat</i>	<i>hacking tool</i>	<i>server</i>

1. In the case of a _____, the data is transmitted not to a central hub in a small network of devices (as it is with Wi-Fi) or even directly from device to device (as it is with Bluetooth), but through a global network of transmitters and receivers.
2. An example of a _____ is a computer worm.
3. A _____ may include a firewall, VPN handling, and other security functions, or these may be handled by separate devices.
4. _____ can be used to recover a forgotten password.
5. The scale of the _____ depends on the targets of the virus and sometimes the results of its activity are imperceptible.
6. _____ A _____ hacker may work as a consultant or be a permanent employee on a company's payroll.
7. A local _____ requires prior access to the vulnerable system and usually increases the privileges past those granted by the system administrator.
8. The purpose of a _____ is to share data as well as to

share resources and distribute work.

9. _____ The credit card files of the company's customers were very _____, so they hired a team of experts to devise security measures for it.

10. _____ hackers can inflict major damage on both individual computer users and large organizations by stealing personal financial information, compromising the security of major systems, or shutting down or altering the function of websites and networks.

5. **Match the verbs and the nouns. Sometimes, more than one option is possible :**



MATCH THE WORDS

1. enforce
2. fix
3. gain
4. develop
5. hack

- a. access
- b. a policy
- c. a script
- d. a website
- e. a vulnerability

Text F



''Cyber security is primarily about people, processes, and technologies working together to encompass the full range of threat reduction, vulnerability reduction, deterrence, international engagement, incident response, resiliency, and recovery policies and activities, including computer network operations, information assurance, law enforcement, etc.''

OR

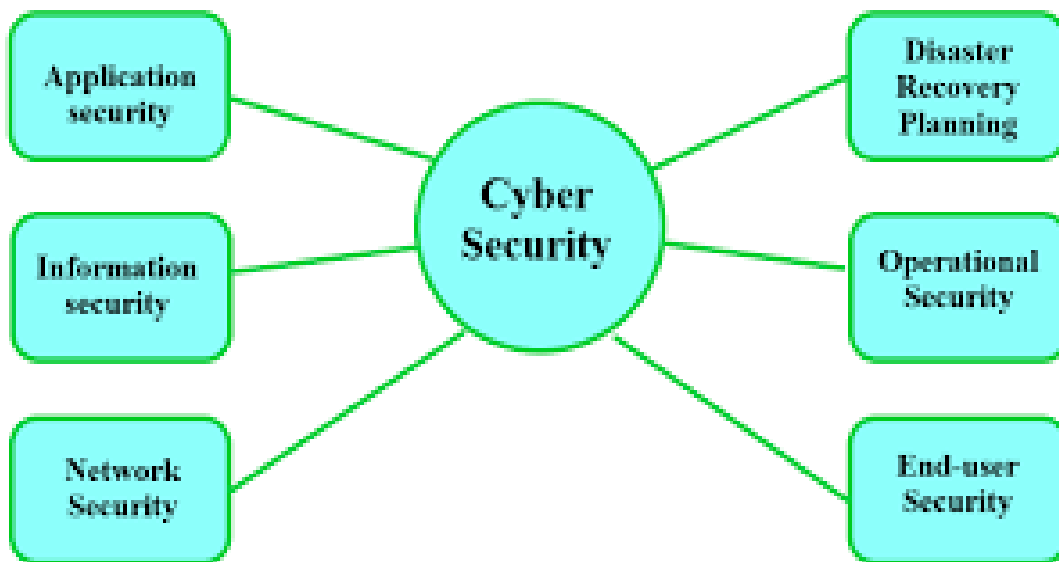
Cyber security is the body of technologies, processes, and practices designed to protect networks, computers, programs and data from attack, damage or unauthorized access.

- The term cyber security refers to techniques and practices designed to protect digital data.
- The data that is stored, transmitted or used on an information system.

OR

Cyber security is the protection of Internet-connected systems, including hardware, software, and data from cyber attacks.

It is made up of two words one is cyber and other is security.

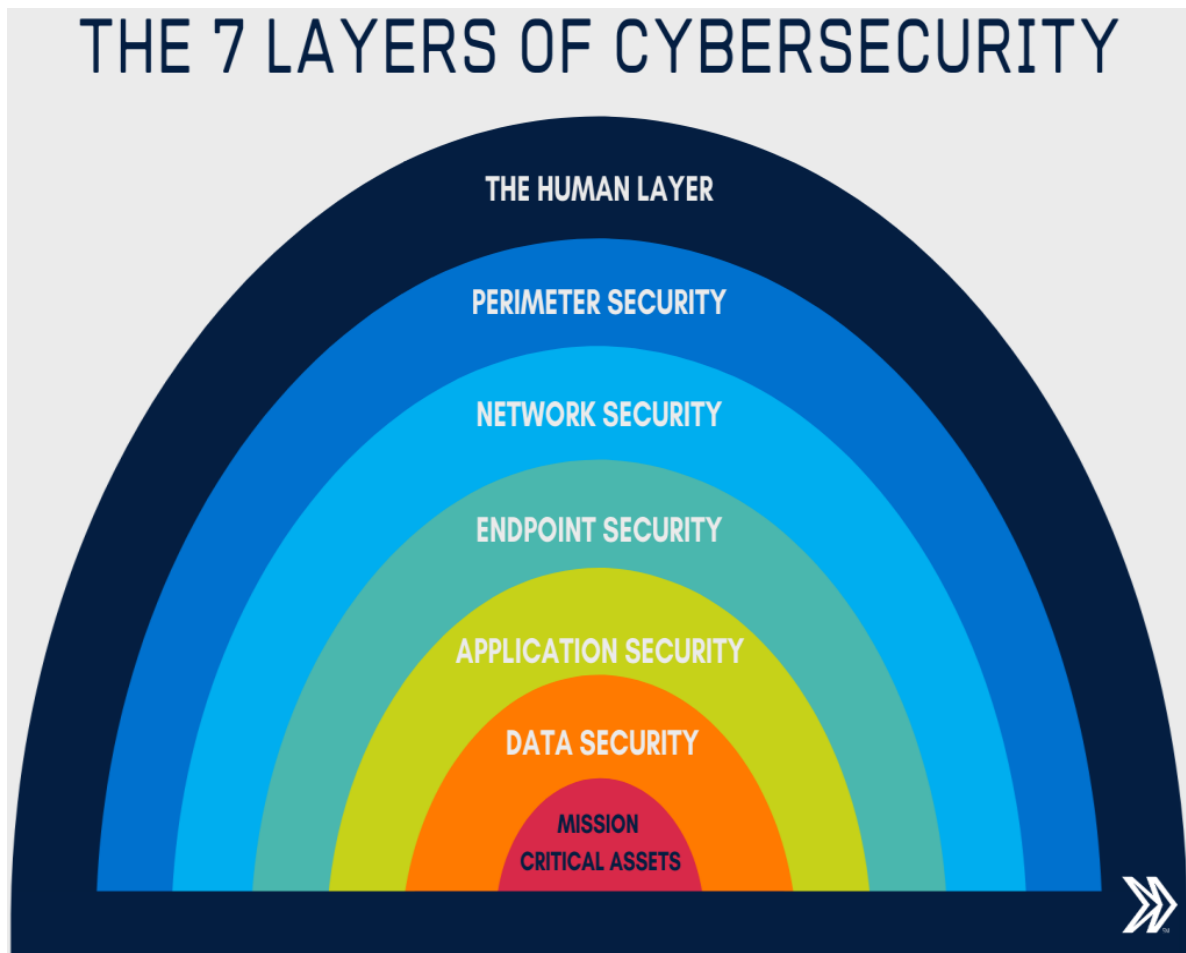


- Cyber is related to the technology which contains systems, network and programs or data.
- Whereas security related to the protection which includes systems security, network security and application and information security.

Talking Points

1. Read about the 7 layers of cyber security and discuss each of them.

1. Mission Critical Assets – This is the data you need to protect.
2. Data Security – Data security controls protect the storage and transfer of data.
3. Application Security – Applications security controls protect access to an



application, an application's access to your mission critical assets, and the internal security of the application.

4. Endpoint Security – Endpoint security controls protect the connection between devices and the network.

5. Network Security – Network security controls protect an organization’s network and prevent unauthorized access of the network.
6. Perimeter Security – Perimeter security controls include both the physical and digital security methodologies that protect the business overall.
7. The Human Layer – Humans are the weakest link in any cyber security posture. Human security controls include phishing simulations and access management controls that protect mission critical assets from a wide variety of human threats, including cyber criminals, malicious insiders, and negligent users.

2. Match the words and their definitions:

access, to hack, computer chip, network, equipment, telecommunications, device

1. the tools, machines, clothes etc that you need to do a particular job or activity
2. the right to enter a place, use something, see someone etc
3. a small piece of silicon that has a set of complicated electrical connections on it and is used to store and process information in computers
4. a machine or tool that does a special job
5. a set of computers that are connected to each other so that they can share information
6. secretly find a way of getting information from someone else's computer or changing information on it
7. the sending and receiving of messages by telephone, radio, television etc.

3. Imagine that you should take part in National Computer Security Project.



You are an expert in computer security. Write an article with your solutions to this problem. Make a list of suggestions and explain their advantages.

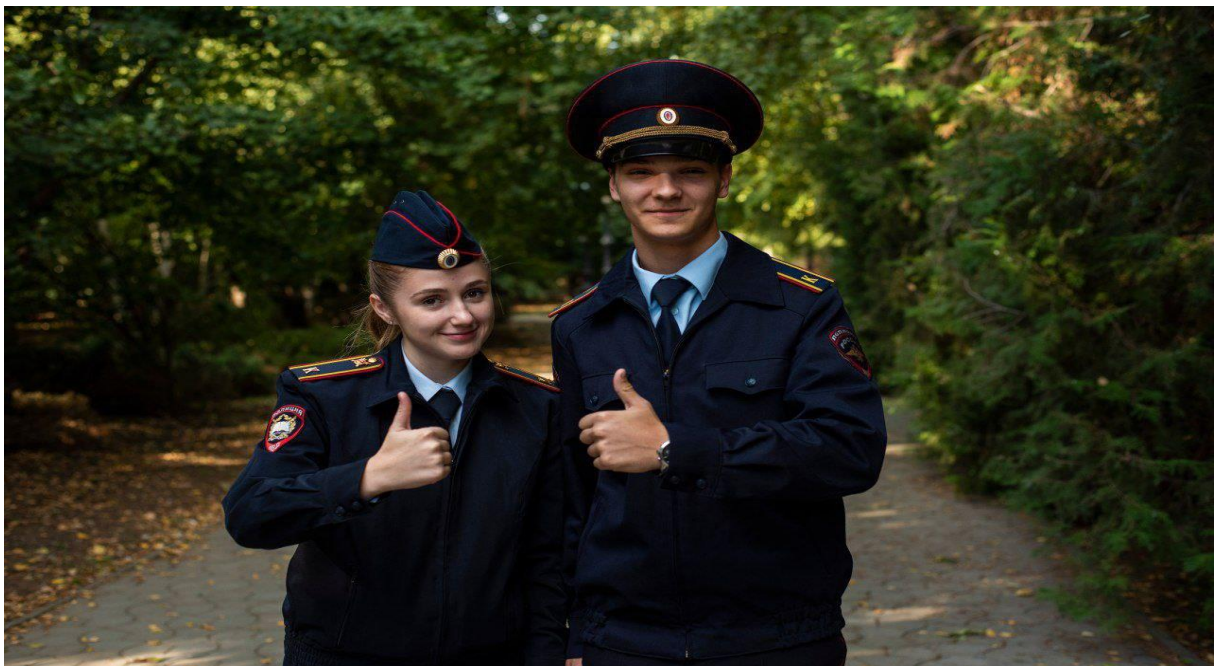
Σημειώσεις για Cyber Crime Investigation

JUST FOR FUN





SUPPLEMENTARY READING



Computer Crime: Prevention and Innovation

The information age has opened the doors to anti social, smart, and opportunistic people to find new and innovative ways to commit old crimes. These people are called hackers. What is the social Problem? Computer crime is the official name given to this criminal phenomenon driven by hackers. Although a solid definition of computer crime has yet to be agreed upon by

scholars, it is described in a functional manner encompassing old crimes such as forgery, theft, mischief, fraud, manipulation or altering of documents; all of which are usually subject to criminal sanctions everywhere.

What the early hackers did was duplicate the particularly distinguishable tones that the phone companies used in their early switching devices enabling them to fool the system into thinking that the customer has paid. A person who used any number of devices available for manipulating switch systems in order to explore or exploit is called a phone phreak. Who are the perpetrators? Computer crime, like any other criminal activity, is a product of opportunity, desire, and ability. Anyone who owns a computer or has access to a computer has the opportunity to misuse its systems to engage in criminal activity.

Researchers found that the average age of most computer crime defendants is between the ages of 21 and 23. The second highest age groups of computer crime defendants are between 18 and 20. They suggested that hackers could be classified into the following groups based on their psychological characteristics: pioneers, scamps, explorers, game players, vandals, and addicts. Among these six classifications of hackers, hard-core computer criminals are mostly found in the explorers, game players, vandals, and addicts.

Pioneers are simply captivated by technology and explore with out necessarily knowing what they are getting into or without specific criminal intent. Scamps are curious and playful hackers that intend no real harm. Explorers, on the other hand, specifically look for highly sophisticated and secured systems that are relatively far from their physical location. The further away and the more sophisticated the systems that are being broken into are, the more exciting it is for the explorer. For the game player hacker, hacking is a sport that involves the identification and defeat of software, systems, and copyright protections.

Vandals are hateful, angry hackers that strike harshly, randomly, and without any apparent personal gain other than knowledge, responsibility, and credit for

such acts. Finally, addicts are your stereotypical nerdy individuals that are literally addicted to computer technology and hacking itself like an addict is to drugs. Due to these obsessive behavioral patterns, it is not surprising that many of these types of hackers are coincidentally hooked on illicit drugs too.

In turn, computer crime has also evolved at the same rate from mere phone phreaking, to a complex categorization of crime all to itself. So much in fact, that computer crime is now a global concern due to the financial burden that it places onto its victims. Primary victims to computer crime are the companies or government agencies database systems that are being invaded. By doing so, the hacker is hoping to cause some sort of loss or inconvenience and either directly or indirectly benefit themselves or a group they belong to or have strong affiliation with.

Secondary victimization is what happens to the public when they begin to fear that no information or computer system that we rely on is ever truly safe from hackers. In short, computer crime affects the entire world. Computer use, misuse, and abuse. Computer use is grouped into three categories. Those categories are proper computer use, improper computer use, and criminal misuse. Computer abuse, although not illegal, points to moral issues of concern for society as a whole. This refers to legal but restricted web sites and activities belonging to subcultures that do not share traditional value structures that the public adheres.

Due to the existence of these groups, the information dimension has also been flooded with misuses such as sexually explicit material and sensitive information that, in my opinion, the public should not have such easy access. A few examples of Sensitive information are, access to bomb making blue prints, where to get materials for such a devise, and military tactical procedures that outline the process and positioning of such devises to create the most damage. In the category of computer misuse, is the creation and deployment of viruses and software piracy.

of



Cyberspace is the computer produced matrix virtual possibilities, including on line services, wherein human beings interact with each other and with technology it self . Although physical environment, social environment, psychological and

mental capacity, and economics are important factors in computer crimes, specific causation of computer crime has to be dealt with on a case by base study. What makes one person engage in computer crime can be different from what makes another person do the very same criminal act.

The problem with dealing with computer crime is that most of it is reactive instead of proactive. Also affecting the way we combat computer crime is the way that society views it and the way society punishes offenders. It appears that the efforts against computer crime are following a historical view of policing and crime fighting where a lot of emphasis was put on law enforcement. Dealing with the offender after the crime has been committed, instead of community cohesion, trying to set up community based organizations to try a raise awareness and impact the criminal behavior before in turns to criminal activity.

The evolution that policing has gone through over the years, from enforcement to prevention, should provide as a good model to follow preventing and dealing with computer crime instead of just reacting to it. This prevention approach would most successful if done in three parts. Part one would



in

involve the media, the government, and businesses or groups that have fallen victims to hackers in the past. Even though the media is often accused of

damaging public perception on issues, it can also be used to help shift or steer public perception in the right direction.

The Media's responsibility would be to bring the public interest message to the masses with TV and radio commercials, newspaper writing, pamphlets, highway billboards, internet posting, mailing list, and series of public lectures or conferences. Primarily, the victimized companies and groups along with the government agencies involved in the pursuit and conviction of the offenders would compose the message that media would be delivering.

The message would entail an appropriate perspective on computer crime, examples of what attitudes society should or should not have toward computer crime, examples or a view of the many government agencies that are on the front line of the computer crime battlefield, and finally a heightened uniform guideline for the punishment of computer crime. Part two of my computer crime prevention approach would involve taking away much if not all the discretion



involved in the sentencing of people convicted of computer crime.

Many judges do not like this method of sentencing because it takes away from their judicial powers and does not allow the judge to decide what he/she

think is best for the community, district, city, or state they preside over. Hackers like it even less because it ensures their fate if caught and convicted of computer crime.

Part three would simply be the reinforcement of part two and provide that the punishment for computer criminals be harsher and involve more time in a federal prison than the average sentence being handed down today for computer crime offenses.

ТЕМА II. ИДЕНТИФИКАЦИЯ В РАССЛЕДОВАНИИ ИТ ПРЕСТУПЛЕНИЙ



1. *Word formation: suffixes.*
2. *Reading and speaking: Identification in computer forensics*
3. *Grammar reference: Modal Verbs*
4. *Listening and speaking*
5. *Reading and discussion*
6. *Supplementary reading*

WORD FORMATION



LANGUAGE FOCUS

WORD BUILDING: SUFFIXES

Suffixes change the class of the root word. For example, by adding the suffix **-er**, the verb *produce* becomes the noun *producer*. Suffixes can tell you if a word is a noun, adjective, verb or adverb.

Study the ‘Suffixes for jobs’

Suffix	Meaning	Examples
-er	=a person who	webmaster, manufacturer
-or	~	computer animator
-ist, -yst	~	systems analyst
-ian	~	computer technician
-ant	~	IT consultant
-eer	~	software engineer

1. Which IT professionals from the table the ‘Suffixes for jobs’ are described here?

1. A person who designs and maintains software applications.
2. A person who gives expert, professional advice.
3. A person who uses graphics software to make or edit animated pictures.
4. A person or enterprise that produces goods in large numbers, using machines.
5. A person who manages and maintains a website.
6. A specialist in the technical details of computers.
7. A person who studies organizational systems and decides what action needs to be taken to maximize efficiency.

Study the ‘Noun-forming suffixes’

Suffix	Meaning	Examples
-ion, -ment, -ics, -ity, -or	=activity, state = a thing which	Compression, measurement, robotics, electricity,

Study the ‘Verb-forming suffixes’

Suffix	Meaning	Examples
-ize / -ise	=to make	computerize
-ate	~	activate, calculate
-ify	~	simplify

Study the ‘Adjective-forming suffixes’

Suffix	Meaning	Examples
-able, -ible	=capable of being	programmable, convertible, compatible
-ful	characterized by	colourful, helpful
-less	=without	careless
-al, -ic, -ical	=having the quality of	computational, digital, magnetic

Study the ‘Adverb-forming suffix’

Suffix	Meaning	Examples
-ly	=in the manner of	digitally, electronically

2. Complete each sentence using the word in brackets and the correct suffix.

- Laser ___ are ___ to other types of printing devices because of their speed.
(PRINT, PREFER)
- Most library databases are ___ via the Internet. (ACCESS)
- We decided to ___ the entire plant to give each department more independence. (COMPUTER)

4. I'll email my report to you as an ____ . (ATTACH)
5. An ____ optical disc allows data to be deleted and new data to be recorded on it. (ERASE)
6. The growth of the Internet has increased the need for effective data ____ . (SECURE)
7. Bluetooth is a ____ technology designed to connect computers, mobile phones and other devices, replacing direct cable links. (WIRE)
8. Aircraft flight ____ is used to train pilots. (SIMULATE)
9. Sound and pictures can be stored ____, as on a CD. (DIGIT)
10. Anti-virus software can detect viruses on ____ media, such as flash drives. (REMOVE).



Reading and Speaking



1. Study the following words and combinations:

to presume [pri'zju:m] – предполагать;

to restrict [ri'strikt] – ограничивать;

host [həʊst] – хозяин, ведущий;

to attach [ə'tætʃ] – прикреплять, присоединять;

to overload [ˌəʊvəl'əʊd] – перегружать;

to eliminate [ɪ'limɪneɪt] – устранять, исключать;
spurious [ˈspjʊəriəs] – ложный, кажущийся;
amount [ə'maʊnt] – количество;
cursory [ˈkɜːsəri] – поверхностный, беглый;
crafted [kra:ftɪd] – искусно созданный;
malicious [mə'liʃəs] – вредоносный;
except [ɪk'sept] – кроме;
to encounter [ɪn'kaʊntə] – неожиданно столкнуться;
drawbacks [ˈdrɔːbæk] – недостаток;
solely [ˈsəʊli] – исключительно;
baseline [beɪslɑɪn] – ограничительная линия
a pattern [ˈpætən] – модель, образец
deliberately [dɪ'lɪbərətli] – умышленно;
to assemble [ə'sembəl] – собираться
flexibility [ˌfleksɪ'bɪləti] – гибкость.

2. Read and translate the text:

Identification in computer forensics



Identification is made possible by authentication, which is the process of confirming and proving the identity presented by the user, in this way, identification can protect a computer system and network from unauthorized access or entry points. There are various ways authentication procedures can work together with identification solutions such as usernames, passwords,

authentication token devices and biometric factors to bolster the cybersecurity measures put in place.

A typical method for authentication over internet is via username and password. With the increase in the reported cases of cybercrime by identity theft



over internet, the organizations have made some additional arrangements for authentication like One Time Password (OTP), as the name suggest it is a password which can

be used one time only and is sent to the user as an SMS or an email at the mobile number/email address that he have specified during the registration process. It is known as two-factor authentication method and requires two types of evidence to authentication an individual to provide an extra layer of security for authentication.

Some other popular techniques for two-way authentication are: biometric data, physical token, etc. which are used in conjunction with username and password. The authentication becomes more important in light of the fact that today the multinational organizations have changed the way the business was to be say, 15 years back. They have offices present around the Globe, and an employee may want an access which is present in a centralized sever. Or an employee is working from home and not using the office intranet and wants an access to some particular file present in the office network. The system needs to authenticate the user and based on the credentials of that user, may or may not provide access to the used to the information he requested. The process of giving access to an individual to certain resources based on the credentials of an individual is known as authorization and often this process is go hand-in-hand with authentication.

Now, one can easily understand the role of strong password for authorization to ensure cybersecurity as an easy password can be a cause of security flaw and can bring the whole organization at high risk. Therefore, the

password policy of an organization should be such that employees are forced to use strong passwords (more than 12 characters and combination of lowercase



and uppercase alphabets along with numbers and special characters) and prompt user to change their password frequently. In some of the bigger organizations or an organization which deals in

sensitive information like defense agencies, financial institutions, planning commissions, etc. a hybrid authentication system is used which combines both the username and password along with hardware security measures like biometric system, etc. Some of the larger organizations also use VPN (Virtual Private Network), which is one of the method to provide secure access via hybrid security authentication to the company network over internet.

EXERCISES

Цель заданий - активизация нового лексического материала, развитие навыков монологической и диалогической речи.

3. Read and translate the following groups of words with the common root:

Occur – occurrence – recurrent

Close – closure – disclose – disclosure – disclosing

Person – persona – personal- personalization – personation – impersonation – personify – personification

Intent – intention – intentional – intentionally – unintentional

Advance – advantageous – advantage – disadvantage

Charge – chargeable – discharge – overcharge

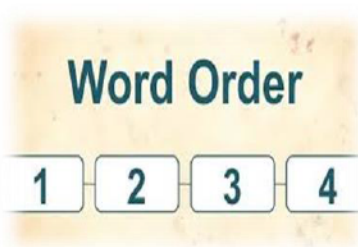
False – falsely – falsity – falsify – falsification – fault – default.

4. Put the nouns below into three groups: countable – uncountable – countable or uncountable:

Data, information, network, security, aspect, profile, time, success, code, virus – detection, software, traffic, experience, research.

5. Make word combinations; use them in sentences of your own:

1. to surf	a. data
2. secure	b. access
3. illegal	c. tunnel
4. transmit	d. the servers
5. to enter	e. the Internet
6. to lose	f. technique
7. cyber-security	g. the privacy
8. to access	h. the website



6. Put the parts of the sentence into the correct order:

1. is via username, for authentication, and password, A typical method, over internet.
2. physical token, popular techniques, biometric data, for two-way authentication are, Some other.
3. around the Globe, They have, may want an access, in a centralized sever, offices present, and an employee, which is present.
4. password frequently, The password policy, to use strong passwords, of an organization, to change their, that employees are forced, should be such, and prompt user.
5. to the company network, of the method also use VPN, via hybrid, Some of the, over internet, security authentication, larger organizations, which is one, to provide secure access.

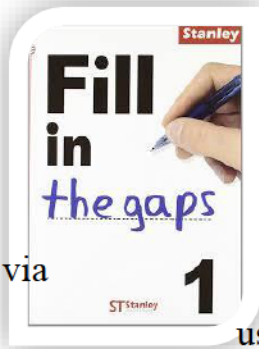
7. Discuss the questions:

1. What is authentication?
2. A typical method for authentication over internet is via username and password, isn't it?



3. What is an additional arrangement for authentication that some organizations have made?
4. What is two-factor authentication method?
5. Can you name any other popular techniques for two-way authentication?
6. Why does the authentication become more important nowadays?
7. What should the password policy of an organization be?
8. What does a hybrid authentication system combine?

8. Fill in the summary of the text with the linking words and phrases:



due to the fact that, however, such as, and

Nowadays the authentication becomes absolutely important.
 The most common method for authentication over internet is

via **1** username and password. It is quite reliable. _____, some organizations tend to use two-factor authentication method in order to protect themselves from identity theft over internet. There are some other popular techniques for two-way authentication _____biometric data, physical token, etc. _____an easy password can be a cause of security flaw and can bring the whole organization at high risk, it is a task for organization to force employees to use strong passwords _____change them frequently.



PROGRESSIVE TENSE FORMS

The **Present Progressive** is used to describe:

1. An activity at or around the time of speaking.

*At present we **are using** this system software.*

2. A fixed future plan.

*Next week we **are buying** new equipment.*

Time words with the **Present Progressive**: *now, right now, at the moment, nowadays* etc.

'Passive Voice'			
	Simple	Continuous	Perfect
Present	am/is/are + V3(ed)	am/is/are + beingV3(ed)	have/has + beenV3(ed)
Past	was/were + V3(ed)	was/were + beingV3(ed)	had + beenV3(ed)
Future	will be + V3(ed)	-	-

The **Past Progressive** is used to describe:

1. An activity at a definite time in the past (*at 4 pm yesterday, from 3 to 5*

yesterday, the whole day yesterday).

He was writing a report at 5 pm yesterday.

2. An activity which is a time frame for another activity.

While we were carrying out the experiment the other team was recording the results.

The **Future Progressive** is used to describe:

1. An activity at a definite time in the future (*at 4pm tomorrow, from 3 to 5 tomorrow, the whole day tomorrow*). *We will be discussing multimedia development at 3 o'clock seminar tomorrow.*



1. Choose the right tense form of the verbs in the following sentences.

1. A computer *is downloading / will be downloading* a free trial now.
2. I *am listening / was listening to* the online radio program while I *was going / went* home.
3. We *were discussing / are discussing* the benefits of e-learning from 2 to 3pm yesterday.
4. Interest in multimedia products *is growing / are growing* rapidly nowadays.
5. I *was searching / were searching* the Web for sites on digital cameras while my groupmates *were working / are working* on their project.
6. The professor *was demonstrating / demonstrated* new techniques to students when I *entered / was entering* the classroom.
7. What *will you doing / will you be doing* in the computing centre from 3 to 4 pm tomorrow?

1. Rewrite the following sentences using the Passive Voice forms.



1. Nowadays new methods are replacing traditional ways of viewing media.
2. He was downloading audio files by native speakers from our website at 5 pm yesterday.
3. Were they setting up the laboratory equipment all day yesterday?
4. They are still considering the engineer's project.
5. While we were creating an interactive multimedia presentation, our groupmates were carrying out a very important experiment.
6. Are they compiling a new program now?
7. People are increasingly using multimedia in education, advertising and entertainment.



3. Complete the sentences with the correct tense forms of the verbs in brackets.

1. While Ann (to compile) a program the chief engineer (to speak) to Nick.
2. He (to make) a report on multimedia applications at the moment.
3. What is the e-zine you (to look through) called?
4. Who you (to talk) on the phone just now?
5. The engineers (to carry out) the tests while the assistants (to record) the resultsWe (to speak) about the difference between DVDs and Blue-ray Discs at 3 o'clock seminar yesterday.
6. What you (to do) at 9 am tomorrow? - I (to take) the exam on programming languages.
7. Media streaming allows users to listen to an audio file while it (to

download).



4. **Work in pairs. Ask your partner what these people:**

- a) are doing at the moment;
- b) were doing at 5 p.m. yesterday;
- c) will be doing at 3 p.m. tomorrow.

1. Phillip (to create a file / to browse the Web / to test a program).

3. Vicky and Mark (to connect a device / to surf the Web / to send e-mails).

5. John (to set up a wireless network / to create a photo collage / to download photos).

2. Ann (to insert an image / to download music files / to play online games).

4. Tim and David (to fix network hardware / to play online games / to edit digital photo).

6. Jenny and Sam (to install a new program / to back up data / to use a library database).

5. **Translate the following sentences into English:**

1. Мультимедиа - это совокупность компьютерных технологий, одновременно использующих графику, текст, видео, анимацию и звуковые эффекты.



2. Постоянный доступ к онлайн ресурсам, лекциям и другому учебному материалу является одним из

главных преимуществ электронного обучения.

3. В данный момент компьютер загружает бесплатную пробную версию программы обработки видеоматериалов.

4. - Где я могу получить информацию об этом мультимедийном курсе? - Я отправляю её вам по электронной почте прямо сейчас.

5. Поточковая передача медиа данных позволяет вам прослушивать аудио файлы во время их загрузки.

6. - Тебя не было в сети вчера вечером. Чем ты был занят? - Весь вечер вчера я готовил презентацию нашего нового проекта.

7. В то время как Денис редактировал видео на компьютере, Павел загружал музыкальные файлы на свой смартфон.



LISTENING AND SPEAKING

Scan, watch the video ‘The science of witness identification’ and speak about peculiarities of witnesses’ identification. Use these combinations:

Innocence Project

witness identifications

consequences to this failure

the relevance of science

led to the identification

applied research

in a position of influencing the witness's judgment

to identify the suspect and the eyewitness

visual perception and memory

take into account information



READING AND DISCUSSION



New methods of identification

DNA [ˈdiːəneɪ]	ДНК
compel [kəmˈpel]	убедить
seize [siːz]	изымать, конфисковывать
repository [rɪˈpɒzɪtəri]	хранилище
quadruplets [ˈkwɒdrʊplɪt]	четверо близнецов
quintuplets [ˈkwɪntɪplɪt]	пятеро близнецов
discriminating [dɪsˈkrɪmɪneɪtɪŋ]	отличительный
iris [ˈaɪrɪs]	радужная оболочка глаза
odour [ˈəʊdə]	запах
hand geometry [dʒɪˈɒmɪtri]	метод идентификации по геометрии ладони
brain fingerprinting	дактилоскопия головного мозга
voice verification	проверка, подтверждение голоса
‘keystroke [ˈkiːstrəʊk]	нажатие клавиши

surveillance systems [sɜ: 'veɪləns] система наблюдения

1. Read and translate the text:



Identification is the most important and vital function of the investigator in any investigation he may conduct. In police investigation identification is the proof that the prisoner is the criminal wanted, his distinctive marks being known; or the

pistol seized is the weapon used in committing the crime under investigation.

There are essentially four ways in which people can be identified:

1. physical appearance (eyewitness identification);
2. fingerprints;
3. DNA;
4. dental records.



Eyewitness identification is widely used in identification. Eyewitness identification is one of the most effective means available to police and prosecutors. It is compelling, and time after time it convinces juries of the guilt of a defendant. The problem is, eyewitness identifications are WRONG at least 50% of the time! So, identification evidence is unreliable. It has been shown on many occasions that people who positively identify a suspect are wrong because the suspect could not have been present at the time of the crime. That is why judges must remind jurors of the weaknesses and dangers of identification evidence in their summing up.

Fingerprint identification has been around for a long time. It has nearly a



century of court acceptance in the United States. In the case of fingerprints, impressions can be taken and compared against fingerprints stored in various repositories. Since a print of one finger has never been known to duplicate exactly another fingerprint – even of the same

person – it is possible to identify an individual with just one impression. Studies done by many examiners have shown that the fingerprints of identical twins are different, as are the prints of triplets, quadruplets and quintuplets. In that sense, fingerprint identification has been found to be even more discriminating than the DNA of identical twins. Despite such factors as ageing and environmental influences, a person's fingerprints do not change. Fingerprints are used by police forces throughout Russia and in more than 30 countries.



DNA is an excellent way to identify people, matching a known sample to an unknown to confirm identification. Other than identical twins, each person's DNA profile is unique to them. DNA provides very accurate results. This method is used for victim identification in mass disasters and for matching crime scene DNA evidence with suspects or convicted offenders.

In the case of dental records, a person's teeth can be compared to dental records held by their dentist.

Except for the most commonly known and popular methods of biometric identification – fingerprint biometrics and DNA identification – there are some other biometrical methods of identification which include iris scans, hand geometry, facial identification, ear shape, body odor, brain fingerprinting, signature dynamics, voice verification and computer keystroke dynamics.



These technologies have many potential uses in the criminal justice system: to enhance access control and identity verification in correctional facilities; as an investigative means for identifying

missing and exploited children as well as criminals captured by surveillance systems. They can accurately identify people when they cash checks, cross borders into the country, sign on to computer networks, on enter secure buildings.

2. Read and translate the following international words without a dictionary:

Information, role, organ, police, pistol, physical, dental, dentist, process, effective, problem, to duplicate, individual, method, technology, factor, person, unique, result, mass, popular, biometric, to scan, geometry, dynamics, computer, potential, control, correctional, to exploit, system, check, to collect.

3. Study the following synonyms and opposites:

Synonyms

to observe = to search

to be around = to be used

various = different

examiners = researchers

discriminating = to distinctive

to match = to compare

to confirm = to verify

correctional facility = prison

secure = safe

SYNONYMS



Antonyms

the same – different
impossible - possible
identical twins – fraternal twins
to enter – to go out
positively – negatively
to be absent – to be present



4. Learn the connectives given to understand the text

where by – посредством чего	that is why – вот почему
at least – по крайней мере	despite – несмотря на
since – так как	except for – исключением
in that sense – в этом смысле	as well as – а также

5. Agree or disagree



1. Fingerprint identifications are wrong at least 50% of the time!
2. DNA provides very accurate results.
3. Eyewitness identification is an excellent way to identify people and is widely used to convince juries of the guilt of a defendant.
4. Fingerprints are used by police forces in more than 30 countries.
5. Studies done by many examiners have shown that DNA of identical twins is different as is DNA of triplets, quadruplets and quintuplets.
6. Biometrical methods of identification have many potential uses in the criminal justice system.

5. Complete the sentences with one of the words from the box

circumstances, fragile, evaluate, records, sketch, beyond reasonable doubt, summoned



1. The guilt of the accused must be proved_____.
2. An investigator should collect, sort and _____information.
3. The investigator searches a crime scene to establish____vital for the investigation.
4. He was _____to the court as a witness.
5. The investigator took measures to prevent destruction of any_____evidence.
6. The final phase in documenting the crime scene is making a crime scene _____,
7. For the evidence collected by the investigator to be valid in court, it must be presented in the form of _____ of interrogation, crime search, etc.

Group Discussion



6. Discuss the questions:

1. What are the four commonly used ways in which people can be identified?
2. What are the two most commonly known and widely recognized methods of biometric identification?
3. What is the most discriminating and reliable method? Why?
4. What is the least reliable method? Why?
5. What method is used for victim identification in mass disasters?
6. What are some other biometrical methods of identification except for fingerprint biometrics and DNA identification?

7. Choose the right variant:

1. ... is a person who gives a police officer confidential information about a crime as his civic responsibility and duty.



- a. informant* *b. burglar*
c. lawyer *d. criminal*

2. ... is defined as a verbal picture or description of a human body.

- a. Biometrics* *b. The portrait parle* *c.*
Graphology *d. DNA*

3. The confrontation of a suspect in custody with an eyewitness is called

- a. interrogation* *b. investigation* *c. line up* *d. arrest*

4. The methods and techniques employed by the suspect, are known as

- a. salient features* *b. physical appearance* *c. modus operandi* *d.*
identification

5. ... establishes identification beyond any doubt.

- a. Fingerprint* *b. Eyewitness identification* *c. Graphology* *d. Line*
up

6. Graphology is the analysis of the physical characteristics and patterns of ...

- a. fingerprint* *b. handwriting* *c. salient features* *d.*
investigation

JUST FOR FUN



SUPPLEMENTARY READING



THE INTERNET OR WWW?



The Internet has become so *ubiquitous* it is hard to imagine life without it. It's equally hard to imagine a world where "www" isn't the prefix of many of our online activities. However, just because the Internet and the World Wide Web are firmly *intertwined with* each other, it does not mean they are synonymous. Let's go back to

when it all began.

Mention the history of the Internet to a group of people, and chances are someone will make a *snarky* comment about Al Gore claiming to have invented it. Gore actually said that he "took the initiative in creating the Internet. So how did the Internet really get started? Unbelievably, it all began with a satellite. In 1957, the Soviet Union *launched* Sputnik, the first manufactured satellite. Americans were shocked by the news. The Cold War was at its peak, and the

United States and the Soviet Union considered each other enemies. If the Soviet Union could launch a satellite into space, it was possible it could launch a *missile* at North America. President Dwight D. Eisenhower created the ARPA in 1958 as a direct response to Sputnik's launch. ARPA's purpose was to give the United States a technological edge over other countries. One important part of ARPA's mission was computer science. In the 1950s, computers were enormous devices that filled entire rooms. They had a fraction of the power and processing ability you can find in a modern PC. Many computers could only read magnetic tape or punch cards, and there was no way to network computers together. ARPA aimed to change that. It enlisted the help of the company Bolt, Beranek and Newman (BBN) to create a computer network. The network had to connect four computers running on four different operating systems. In 1990, Tim Berners-Lee developed a system designed to simplify navigation on the Internet. In time, this system became known as the World Wide Web. It didn't take long for some people to mistakenly identify the Internet and the Web as the same thing. The Internet is a global interconnection of computer networks; the World Wide Web is a way to navigate this massive network. In sailing terms, it's like comparing an ocean to a ship.

Most early Internet users were government and military employees, graduate students and computer scientists. Using the World Wide Web, the Internet became much more accessible. Colleges and universities began to connect to the Internet, and businesses soon followed. The creation of the World Wide Web came with the help of a man named Tim Berners-Lee. In 1990, he developed the backbone of the World Wide Web -- the HTTP. People quickly developed browsers which supported the use of HTTP and with that the popularity of computers *skyrocketed*.

You might be wondering at this point what exactly HTTP is -- it's simply the widely used set of rules for how files and other information are transferred between computers. So what Berners-Lee did, in essence, was determine how

computers would communicate with one another. For instance, HTTP would've come into play if you clicked the source link in the last paragraph or you typed the `http://www.iseu.by` URL into your browser to get to university page. But don't get this confused with Web page programming languages like HTML and XHTML. We use those to describe what's on a page, not to communicate between sites or identify a Web page's location.



if
our
to

So, if there is any difference between www and the Internet?

To answer this question, let's look at each element. Simply, the Internet is a network of networks -- and there are all kinds of networks in all kinds of sizes. You may have a computer network at your work, at your university or even one at your house. These networks are often connected to each other in different configurations, which is how you get groupings such as LANs and regional networks. Your cell phone is also on a network that is considered part of the Internet, as are many of your other electronic devices. And all these separate networks -- added together - - are what constitute the Internet. Even satellites are connected to the Internet.

The World Wide Web, on the other hand, is the system we use to access the Internet. The Web isn't the only system out there, but it's the most popular and widely used. (Examples of ways to access the Internet without using HTTP include e-mail and instant messaging.)

So another way to think about it is to say the Internet is composed of the machines, hardware and data; and the World Wide Web is what brings this technology to life.

ТЕМА III. РАССЛЕДОВАНИЕ IT ПРЕСТУПЛЕНИЙ



1. *Part of speech: conjunctions.*
2. *Reading and speaking: Investigation of cybercrime*
3. *Grammar reference: Infinitive*
4. *Listening and speaking*
5. *Reading and discussion*
6. *Supplementary reading*



CONJUNCTIONS

! Conjunctions are words and phrases, which join parts of a sentence together. They are:

Coordinating (such as *or, and, but, yet, for, nor, so*). When a coordinating conjunction connects two independent clauses, it is often (but not always) accompanied by a comma. When the two independent clauses connected by a coordinating conjunction are nicely balanced or brief, many writers will omit the comma. The comma is always correct when used to separate two independent clauses connected by a coordinating conjunction.

Correlative (such as *not only ... but also; neither ... nor...; whether ... or; both ... and ... ; not... but. ;as. as. ; either ... or.* are combined with other words, always travel in pairs, joining various sentence elements that should be treated as grammatically equal).

Conjunctive Adverbs (such as *however, moreover, nevertheless, consequently, as a result* are used to create complex relationships between ideas).

- **Subordinating** (sometimes is called a dependent word which comes at the beginning of a Subordinate (or Dependent) Clause and establishes the relationship between the dependent clause and the rest of the sentence. It also turns the clause into something that depends on the rest of the sentence for its meaning).

after	as long as	even	if	now that	so that	unless	where
although	as though	even	once	than that	until when	whereas	
as	because	though	if	rather	though	whenever	wherever
as if	before	if only	in	than	till		while
		order	since				
		that					

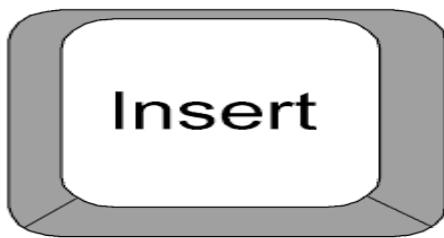
In general, there are six main types of conjunctions:

- a) Addition: *Furthermore*, many people began to post things other than event listings—including job openings, for which Newmark soon set up a separate category on the list.
- b) Result: *Thus* Rich Text Format (RTF), a format that includes most generic document features, is supported by most modern word processors.
- c) Reason: *Owing to* the fact that more than one channel is used for down-link, the GPRS mobile phones make possible greater data transmission speeds.
- d) Time: *Thirdly*, it is difficult to implement certain kinds of basic queries using SQL and relational databases, such as the shortest path between two points.

e) Example: *For instance*, if your code contains numbers with many digits, use an underscore character to separate digits in groups of three, like a comma, or a space, as a separator.

f) Opposition: *Although*, there is a boolean in some C++ compilers, boolean is not a basic type in C.

g) For more extra information you can visit
<http://grammar.ccc.commnet.edu/grammar/conjunctions.htm>



Insert a suitable conjunction in each gap :

<i>for example</i>	<i>owing to</i>	<i>however</i>	<i>thus</i>
<i>so that</i>	<i>furthermore</i>	<i>although</i>	<i>or</i>

1) you must be careful when mixing different data types, sometimes there are good reasons to do so.

2) a machine with 32 address lines can handle up to 32 bits,

3) 3) _ 4 gigabytes (billions of bytes) worth of addresses.

4) ___ in the amount of time you spend trying to figure it out, you could already have the program finished in Visual Basic or C#.

5) Bind data to tests _____ you can use data-driven tests (6) _____ to search for keywords in a database).

7) ___ you should avoid using the converted value for computational purposes, 8) the problems associated with the use of floating-point data types with monetary data.



Reading and Speaking

Cyber Crime Investigation



1. Study the following words and combinations:

Intangible [in'tanjəb(ə)l] – неосязаемый

threat [threat] – угроза, опасность

transient ['trænzɪənt] – недолговечный, мимолетный

volatile ['vɒlətaɪl] – изменчивый

density ['densɪti] – плотность

foster ['fɒstə] – стимулировать

challenge [tʃælɪndʒ] – проблема, трудность

identity theft [aɪ'dentəti 'θeft] – хищение личных (конфиденциальных) данных;

sensitive information ['sen(t)sɪtɪv,ɪnfə'meɪʃ(ə)n] – важная (значимая, секретная, конфиденциальная, критичная, ценная) информация; уязвимая информация;

punishable ['pʌnɪʃəbl] – наказуемый, заслуживающий наказания;

ethical ['eθɪk(ə)l] hacking – этический взлом, хакинг;

to violate ['vaɪəleɪt] – нарушать; преступать;

peer sharing [piə 'ʃeəriŋ] websites – веб-сайты с функцией обмена файлами;

to encourage [ɪn'kʌrɪdʒ] – поощрять, содействовать;

to prevent [prɪ'vent] – мешать, препятствовать, не допускать;

to backup ['bækʌp] – выполнять дублирование; резервное копирование (данных);

explicit [ɪk'splɪsɪt] permission – явное разрешение;
 multitude ['mʌltɪtju:d] – множество, большое количество;
 modus operandi ['mɒdəs, ɔpə'reɪndi:] – способ совершения преступления;
 harassment [hə'ræsmənt] – преследование; домогательство;
 to stalk – скрыто преследовать; выслеживать;
 stalker – преследователь;
 wherein [(h)weə'ɪn] – в чем, где;
 cash transaction ['kæʃtræn'zækʃ(ə)n] – сделка за наличный расчет;
 to spoil [sprɔɪl] – портить; наносить ущерб;
 intellectual property [ɪnt(ə)'lektʃuəl 'prɒpəti] – интеллектуальная собственность;
 counterfeiting ['kauntəfɪtɪŋ] – подделка (незаконное изготовление копий чего-либо);
 fake [feɪk] – поддельный, фальшивый;
 child abuse [ə'bju:s] – жестокое обращение с детьми;
 to solicit [sə'lɪsɪt] – домогаться.

2. Read and translate the text:

Investigation

Cybercrime investigation is a specialized field that focuses on identifying, analyzing, and mitigating computer-based crimes and malicious activities in cyberspace. It involves using digital forensics and other specialized tools to investigate various cybercrimes like hacking, phishing, malware, data breaches, and identity theft. The goal is to identify perpetrators, preserve evidence, and collaborate with law enforcement to bring cybercriminals to justice.

Investigating cybercrime is not an easy task, as most of the evidence is intangible and transient. Cybercrime investigators seek out digital traces, which are often volatile and short-lived.

Legal challenges also arise owing to problems of borders and jurisdictions. The investigation and prosecution of computer-related crime highlights the importance of international cooperation.

The increasing density of ICTs also increases the frequency of domestic



computer-related crime, which requires states to establish domestic legislation. National laws adapted to address cyber crime may be required to effectively respond to foreign requests for assistance or to obtain assistance from another

country. Compatibility with the laws of other nations is an essential goal when developing legislation; international cooperation is needed owing to the international, transformer nature of computer-related crime. Formal international mechanisms are needed in order to respect States' sovereign rights and to facilitate international cooperation. For mutual legal assistance to function successfully, substantive offences and procedural powers in one jurisdiction ought to be compatible with those in another.

Digitpol's cybercrime investigations follow a rigorous process to ensure that all evidence is collected and analyzed in a legally admissible manner. The process typically involves the following steps:



1. **Identification:** The first step is to identify that a cybercrime has occurred.

This may involve detecting unusual network activity, unauthorized access to systems or data, or other signs of a cyber attack.

2. **Preservation:** Once the cybercrime has been identified, the next step is to preserve any digital evidence related to the incident. This may involve imaging hard drives, copying data from servers, or preserving network traffic logs.

3. **Analysis:** The preserved digital evidence is then analyzed to determine the source and scope of the cybercrime. This may involve examining network traffic, examining logs, and examining files and folders on computers or other devices.
4. **Reporting:** After the analysis is complete, a detailed report is prepared, outlining the findings of the investigation. This report may be used as evidence in legal proceedings, and must therefore be prepared in a manner that is legally admissible.
5. **Remediation:** Finally, remediation measures are put in place to prevent similar cyber attacks from occurring in the future. This may involve patching vulnerabilities, updating security software, or implementing new policies and procedures to improve cybersecurity.

Throughout the investigation process, Digitpol's team of experts work closely with clients to provide regular updates and recommendations on how to best mitigate the damage caused by the cybercrime. The goal is to quickly identify the source of the attack, contain the damage, and restore normal operations as quickly as possible.

What is Cybercrime?



Cybercrime refers to criminal activities that are committed using the internet or other forms of computer networks. This can include a wide range of activities such as hacking, identity

theft, online fraud, and the distribution of malware or other malicious software. Cybercrime can also include activities such as cyberstalking and cyberbullying. The rapidly increasing use of technology has made cybercrime a major concern for individuals, businesses, and governments around the world.

While law enforcement agencies are trying to solve cybercrimes, their number is growing steadily and many people have become victims of hacking, theft, identity theft and malicious software. One of the best ways to avoid being a victim of cybercrimes and protecting your sensitive information is by making use of impenetrable security that uses a unified system of software and hardware to authenticate any information that is sent or accessed over the Internet.

There are many types of cybercrimes and the most common ones are explained below:

Hacking: This is a type of crime wherein a person's computer is broken into so that his personal or sensitive information can be accessed. In some countries, hacking is classified as a felony and punishable as such. This is different from ethical hacking, which many organizations use to check their Internet security protection. In hacking, the criminal uses a variety of software to enter a person's computer and the person may not be aware that his computer is being accessed from a remote location.

Malicious Software: These are Internet-based software or programs that are used to disrupt a network. The software is used to gain access to a system to steal sensitive information or data or causing damage to software present in the system.

Theft: This crime occurs when a person violates copyrights and downloads music, movies, games and software. There are even peer sharing websites which encourage software piracy and many of these websites are now being targeted by the FBI. Today, the justice system is addressing this cybercrime and there are laws that prevent people from illegal downloading.

Digital piracy is defined as the illegal copying of digital goods, software, digital documents, digital audio (including music and voice), and digital video for any other reason other than to backup without explicit permission from and compensation to the copyright holder. The Internet facilitates digital piracy because the network allows crime to take place detached from the owner. For

example, digital music piracy is committed through a multitude of modus operandi. The issue of digital piracy has become a topic of immense concern, such that it has attracted the attention of legislators, academics as well as business executives.

Cyber Stalking: This is a kind of online harassment wherein the victim is subjected to a barrage of online messages and emails. Typically, these stalkers know their victims and instead of resorting to offline stalking, they use the Internet to stalk. However, if they notice that cyber stalking is not having the desired effect, they begin offline stalking along with cyber stalking to make the victims' lives more miserable.

Identity Theft: This has become a major problem with people using the Internet for cash transactions and banking services. In this cybercrime, a criminal accesses data about a person's bank account, credit cards, Social Security, debit card and other sensitive information to siphon money or to buy things online in the victim's name. It can result in major financial losses for the victim and even spoil the victim's credit history.

Intellectual property crime is a serious financial concern for car manufactures, luxury goods makers, media firms and drug companies. Most alarming according to Interpol, is that counterfeiting endangers public health, especially in developing countries, where the World Health Organization estimates more than 60 percent of pharmaceuticals are fake goods.

Child soliciting and Abuse: This is also a type of cybercrime wherein criminals solicit minors via chat rooms for the purpose of child pornography. The FBI has been spending a lot of time monitoring chat rooms frequented by children with the hopes of reducing and preventing child abuse and soliciting.

EXERCISES

Цель заданий - активизация нового лексического материала, развитие навыков монологической и диалогической речи.

3. Find in the text words and word combinations which mean:

- a serious crime, such as murder or arson;
- the action or crime of stealing;
- copying and archiving of computer data so it may be used to restore the original after a data loss event;
- physical, sexual or emotional maltreatment or neglect of a child or children;
- to break into computers and computer networks;
- intangible goods that exist in digital form;
- creations of the intellect for which a monopoly is assigned to designated owners by law;
- unwanted or obsessive attention by an individual or group toward another person;
- the state of being free from danger or threat;
- privileged or proprietary information that only certain people are allowed to see and that is therefore not accessible to everyone.

4. Read the statements and say if they are TRUE or FALSE. Correct the wrong sentences:

1. Many people have become victims of hacking, theft, identity theft and malicious software.



2. You should use secure unified system of hardware and software to authenticate any information that is sent or accessed over the Internet.

3. In many countries, hacking is classified as a misdemeanor.

4. Malware is used to gain access to a system to steal sensitive information or data or causing damage to software present in the system.

5. There are no laws that prevent people from illegal downloading.

6. Digital piracy occurs when a person violates copyrights and downloads music, movies, games and software.
7. Stalkers use the Internet to stalk their victims whom they know well.
8. Identity theft and intellectual property crime can result in great financial losses.
9. Chat rooms are not frequented by children.
10. One of the main concerns of FBI is reducing and preventing child abuse and soliciting.

5. Put the parts of the sentence into the correct order:

1. is growing, The problem of, cybercrimes, steadily.
2. types of, There are, many, cybercrimes.
3. Internet security protection, use ethical hacking, to check their, Many organizations, their.
4. a network, Malicious software, is used, to disrupt.
5. a topic of immense concern, The issue of digital piracy, has become.
6. a barrage of, In cyberstalking, online messages and emails, the victim is subjected to.
7. financial losses, Identity theft, can result in.
8. endangers, public health, Counterfeiting.
9. children, via chat rooms, can solicit, Criminals.
10. very dangerous, Cyber criminals, are.



6. Read the text “TYPES OF CYBERCRIMES” again and find sentences talking about:

- a) the current problem of cybercrimes;
- b) a way to avoid being a victim of cybercrimes;

- c) cybercrimes concerning sensitive information;
- d) cybercrimes associated with financial data;
- e) cybercrimes concerning humans and their lives.

7. Discuss the questions:

1. Investigating computer-related crime is not an easy task, is it? Why?
2. Why do the investigation and prosecution of computer-related crime highlight the importance of international cooperation?
3. Are formal international mechanisms needed in order to respect states' sovereign rights and to facilitate international cooperation?
4. What can we do to stop computer crimes?
5. What other threats can a computer user encounter?



Group work:

Divide in groups and find possible ways of solution to the problems of computer security.

8 Complete the sentences using the words in brackets:

crime, fraud, email, anti-spam, divided, hacker



Computer....encompasses a broad range of activities. Generally, however, it may be....into two categories: (1) crimes that target computers directly; (2) crimes facilitated by computer networks or devices, the primary target of which is independent of the cats network or device.

Spam, or the unsolicited sending of bulkfor commercial purposes, is unlawful in some jurisdictions. While.....laws are relatively new, limits on unsolicited electronic communications have existed for some time.

Computer ... is an act performed by a knowledgeable computer user,

sometimes referred to as a ... that illegally browses or steals a company's or individual's private information.



INFINITIVE

	Forms of the Infinitive	
	Active Voice	Passive Voice
Simple	(to) repair	(to) be repaired
Continuous	(to) be repairing	—
Perfect	(to) have repaired	(to) have been repaired
Perfect Continuous	(to) have been repairing	—

The **Simple Infinitive** refers to the present or future action.

*I know him **to be** a good programmer. I'd like **to update** my antivirus.*



The **Continuous Infinitive** expresses an action happening now. *He must **be fixing** a network connection now.*

The **Perfect Infinitive** shows that the action of the Infinitive happened before the

action of the verb.

*When was the data backed up? It appears **to have been backed up** to the company's mainframe during the night.*

The **Perfect Continuous** Infinitive is used to put emphasis on the duration of the action of the Infinitive, which happened before the action of the main verb.

*She looks tired. She seems **to have been working** all morning.*

PUT

1. Put the verbs in brackets into the correct form :

1. - Is Sally driving home from work? - Yes, she seems (drive) now.
2. - Did you read the news about a new robot from Seiko Epson? - Yes, it's amazing! Engineers claim ___ (design) the robot that can autonomously execute tasks by recognizing the position of objects in 3D space.
3. - When do you want the files? - They need ___ (restore) by tonight.
4. - Is Dan in his room? - Yes, he must ___ (talk) on his mobile.
5. - My screen is frozen. - You'll have to ask an IT technician ___ (come) and have a look.
6. - When was the equipment installed? - It appears ___ (set up) during the week.
7. Always remember ___ (take) a back up.
8. - Try to phone Max at the office if he's not at home. They must ___ (test) the program all day.

The **to Infinitive** is used:

1) **to express purpose = in order + to infinitive.**

Robots use different kinds of sensors (in order) to collect the information they need.

2) **to express reason after too / enough constructions.**

Robots are used in the environments that are too dangerous for humans to go.

Robots are accurate enough to perform surgery.

3) as the subject of a sentence

It's important for a robot to have different kinds of sensors. =

To have different kinds of sensors is important for a robot.

4) after certain verbs. These include: *agree, begin, decide, would like, intend, manage, want, use, appear, seem, claim, etc.*

The engineers want to design a robot that can show emotions.

Note: we can use **not + to Infinitive**.

The company decided not to develop the new network.

5) after allow, enable, permit, recommend, expect, encourage, cause, force + object (see Complex Object).

Pressure sensors allow a robot to handle delicate items.

6) after question words (where, how, what, who, which).

Their Maths teacher explained how to solve the problem.

Note: If two infinitives are joined by '**and**' or '**or**', the '**to**' of the second infinitive can be omitted.

I want to call Margarita and invite her to the party.

The **Infinitive without to (Bare Infinitive)** is used:

1) after modal verbs (except for *ought to, have to, to be to*)

Robots can be sent underwater or into space.

2) after *make, let, see, hear, feel* + object (see Complex Object)

Actuators let robots move in different directions.

BUT in the Passive form: be made / be heard / be seen + to Infinitive (see Complex Subject)

He was made to reprogram a robot.

Note: *help* can be followed by the **Infinitive with or without to**.

Robots help humans (to) handle radioactive waste.



2. Insert to where necessary. Translate the sentences:

1. Robots are helpful in activities which are too boring for humans ___ do.

2. The computer sends signals to the robot ___ make it ___ perform each step of a task.
3. Science-fiction robots can often ___ think for themselves, talk, and walk easily on two legs.
4. Robots allow doctors ___ see inside the body through tiny incisions.
5. Unlike in the movies, robots are unable ___ think or ___ make decisions like people.
6. Run down batteries caused the Mars rover ___ stop moving.
7. NASA uses robotic arms ___ move large objects in space. This helps astronauts ___ work more safely and quickly.
8. It's ideal ___ use robots for pick and place operations, assembly and quality control inspections.

3. Put the words in the sentences in the correct order. Translate the sentences and analyze the use of the Infinitive.



1. Visual Basic / easy / is / to learn / it?
2. the cables / not / the engineers / to touch / the employees / warned.
3. to test / it's / different / the programs / conditions / under/ advisable.
4. robots / difficult / people / to perform / hazardous / use / and / tasks.
5. spyware / perform / can / your PC / make / slowly / more?
6. important / a good / to use / errors / it's / debugger / to fix.
7. voice / a lot of / applications / to develop / companies / for web access / are trying.
8. tablet computers / to save / have / in order / space / few ports / very.
9. On / to be placed / your desk / is designed / a desktop PC.

Complex Object with the Infinitive



The structure can be:

Subject + Verb + Object + to Infinitive or Bare Infinitive

The ***Object*** can be a name, a noun or an object pronoun (*me, you, him, her, us, them*).

We expected Tom to fix the computer.

Would you like me to reboot the system again?

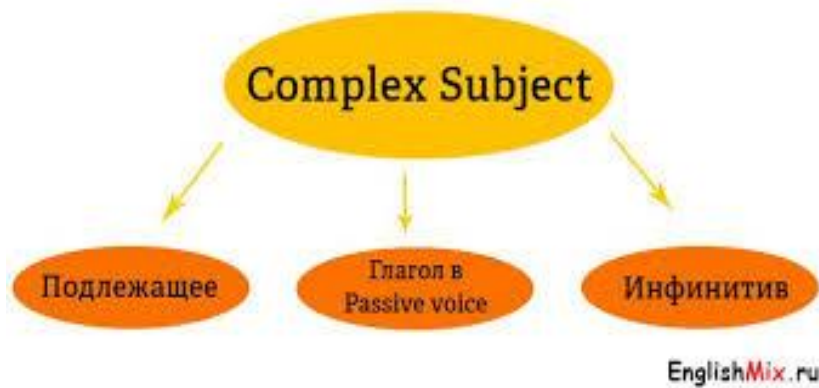
Complex Object is used after the following verbs: *want, would like, expect, ask, allow, enable, permit, let, force, cause, make, etc.*

4. Rephrase the following sentences as in the example:

Example: Why don't you come to the Robot Exhibition with us? (I would like)
I would like you to come to the Robot Exhibition with us.

1. They must upgrade the system now. (I want)
2. He followed a link in the phishing e-mail. (The cybercriminals made)
3. Don't use this search engine. (I wouldn't recommend)
4. I think Katie should save her work regularly. (I would like)
5. If you have a broadband connection, you are able to watch videos online.
(Having a broadband enables)
6. Nick said I could use his laptop. (Nick allowed)
7. The robots have antennas that pick up the message commands. (Antennas let)

Complex Subject with the Infinitive



The structure can be:

1. Subject + Verb in the passive form + to Infinitive

He is said to be a good programmer.

Complex Subject is used after the following verbs: *see, hear, think, consider, know, expect, believe, say, report etc.*

2. Subject + Verb in the active form + to Infinitive

You seem to have a new smartphone.

Complex Subject is used after the following verbs: *seem, appear, happen, turn out, prove, chance.*

3. Subject + be + adjective / adverb + to Infinitive

She was happy to win the prize.

He is sure to come.

Complex Subject is used after the following adjectives: *happy, glad, sorry, pleased, (un) likely, sure, certain etc.*



5. Identify the Complex Subject. Translate the sentences and analyze the use of the Infinitive:

1. Some robots can be controlled from great distances, such as from Earth to Mars!

2. Robot installation for such tasks as packaging, palletizing, and filling is expected to see continued growth.

3. Japanese manufacturers were the first to fully use robotics.

4. Honda Motor Company's ASIMO robot is considered to be the world's most advanced humanoid robot.

5. It is interesting to note that most of the companies that use robots well within their manufacturing areas also develop and build their own robots.

6. All smart devices in future are sure to use capacitive screens.

7. The use of robots in assembly is expected to increase because of the high cost of manual labour.



6. Correct the mistakes :

1. It's important of a robot to be able to sense its surroundings.

2. The browser lets you to enter information into websites.

3. Robots can also replace humans who have do dull, repetitive tasks.

4. Androids are designed to look and to behave like a human.

5. A robotic arm can to move in various directions.

6. Surgical robots are programmed to be assisted human surgeons in very delicate microsurgery operations.

7. Dual-arm robots certain have vision and force sensors.

8. Translate from Russian into English using active vocabulary :

1. Необходимо перепрограммировать робота, чтобы начать выпуск новой продукции.

2. Удалите несколько файлов, чтобы освободить место на жестком диске.

3. Этот пароль достаточно небезопасный, чтобы его использовать для доступа в систему.



4. Обучать роботов - это одно из перспективных направлений в развитии робототехники.

5. Важно обновлять антивирусное ПО регулярно для того, чтобы предотвратить заражение компьютера.
6. Мы ожидаем, что роботы в этом цехе будут работать с большей скоростью и высокой точностью.
7. - Как роботы видят? - Система стереоскопического зрения позволяет роботам построить трехмерную модель того, с чем они работают и адаптироваться к окружению на производственной линии.



LISTENING AND SPEAKING



Scan, watch and discuss the following

videos:



READING AND DISCUSSION



keystone ['ki:stoun] – основной принцип

mean [mi:n] - означать, обозначать

Reconstruct the happening ['ri:kəns'trʌkt] – мысленно воссоздать прошедшее

successful [sək'sesful] – преступный, успешный

available [ə'veiləbl] – доступный, имеющийся в распоряжении

participate [pa:'tɪsɪpeɪt] - участвовать

attribute ['ætrɪbjʊ:t] – свойство, характерный признак

dedication [,dedɪ'keɪʃən] – преданность, самоотверженность

courage ['kʌrɪdʒ] – храбрость, смелость, отвага

aptitude ['æptɪtju:d] – склонность, способность

intelligence [ɪn'telɪdʒəns] – ум, интеллект

sleuthing powers ['slu: θɪŋ' paʊəz] – сыскные способности

knowledgeable ['nɒlɪdʒəbl] - осведомленный

fundamentals [ˌfʌndə'mentlz] - основы

marksmanship ['mɑ:ksmənʃɪp] – меткая стрельба

depend on (upon) [di'pend] – зависеть от

overt ['ɒvət] – гласный

undercover (covert) ['ʌndə,kʌvə] ['kʌvət] – негласный
 penetrate ['penitreit]- внедряться
 surveillance [sə:'veiləns] – негласный надзор
 underworld ['ʌndəwə:ld]–преступный мир
 ferret out' serious crimes, etc. ['ferit] – выискивать, разведывать , собирать
 информацию о серьезных преступлениях
 frustrate-[frʌs'treit] – расстраивать, скрывать
 operate in plain clothes [klouðz] – работать в штатской одежде
 lay an ambush ['lei ən' æmbʊʃ] - устраивать засаду
 a plain-clothes man, a sleuth, a CID man [slu: θ] -сыщик
 come to know - узнавать
 distinctive marks [dis'tɪŋ (k)tɪv 'mɑ:ks] - приметы
 close associate ['kləʊs ə'souʃiit; ə'sousiit]- близкий соучастник
 become familiar [fə 'mɪljə] - познакомиться
 salient feature['seɪljənt 'fi:tʃə] – характерная особенность
 modus operandi ['mɒdəs 'ɒpərændɪ] –способ действия
 common sense ['kɒmən 'sens] – здравый смысл
 touch [tʌtʃ] - прикоснуться
 disturb [dis'tɜ:b] –беспокоить, нарушать
 informant [ɪn'fɔ:mənt] – источник информации
 confidential [,kɒnfi'denʃəl] - секретный
 define [di'fain] – определять/ квалифицировать
 catch [kætʃ] –поймать
 bring a charge [tʃɑ: dʒ] –выдвигать обвинение
 neutralize ['nju:trəlaɪz] обезвредить
 bring the criminal to justice - привлечь преступника к уголовной
 ответственности

Read and discuss the text:



Criminal investigation is the keystone of the police service. Investigation means a search for the truth, for the offender, for witnesses who help to reconstruct the happening and will present evidence of it in court.

No successful investigation is available without participation of highly professional policemen - patrol officers, detectives or investigators - who possess courage, intelligence, dedication, competency, self-command, specialized investigative aptitudes and professional instinct, i.e. some sleuthing powers.

To ferret out serious crimes and detect those who commit them a police officer should do his best in performing his job. He should know not only theoretical fundamentals of law enforcement but he should also be skilled in marksmanship, driving a patrol car, communicating with the public.

The work of an investigator includes covert and overt functions.

An investigator often operates in plain clothes in his undercover work. He comes to know personally the offenders of the specific criminal specialty, their friends, their relatives and close associates. He also lays an ambush and conducts surveillance, penetrates the underworld, works with the informants. The informant is a person who gives the police officer confidential information about a crime as his civic responsibility and duty.



In case the investigating officer works at the crime scene he defines the crime quickly and examines the scene very carefully before he touches and disturbs anything. He

takes active measures to detect the offender that is to identify, locate and apprehend an evil-doer. He usually takes pictures of the scene and its objects, collects and protects evidence, interviews witnesses and persons for discovery of stolen property and instruments of the crime.

No doubt quick and accurate crime investigation and solution catching, neutralizing and bringing the criminal to justice is essential. At the same time a very much more important and difficult thing is crime prevention.

1. Translate into Russian:

no confidential information, some efforts, his intelligence, their functions, this keystone, her sleuthing powers, every plain-clothes man, a sleuth, an informant possessing information, my specialty, another close associate, little common sense, our salient features, that discovery, another search.

2. Translate into English

проводить расследование, обладать сыскными способностями, раскрывать преступление, делать все возможное, устраивать засаду, проводить негласный надзор, работать под прикрытием, внедряться в преступный мир, задержать правонарушителя, защищать улики, обладать навыком меткой стрельбы.

3. Translate synonyms:

Crime – offence

Distinctive mark – salient feature

A plain-clothes man – a sleuth

Investigation – survey

To look for – to search for

Observation – examination

4. Translate antonyms

Reconstruct – destroy

Note – overlook

Overt – covert



To solve crime – to commit crime

Law-breaker – law-abiding citizen

5. Match the columns A and B, make word combinations

<i>A</i>	<i>B</i>
1	
2. <i>Traffic law enforcement</i>	2. <i>здравый смысл</i>
3. <i>Stolen property</i>	3. <i>сыскные способности</i>
4. <i>Close associate</i>	4. <i>оперативник, работающий в штатском</i>
5. <i>No doubt</i>	5. <i>дорожный надзор</i>
6. <i>Sleuthing powers</i>	6. <i>похищенное имущество</i>
7. <i>Common sense</i>	7. <i>негласная (скрытая) работа</i>
8. <i>Undercover work</i>	8. <i>близкий соучастник</i>
9. <i>Plain-clothes man</i>	1. <i>вне всякого сомнения</i>



6. Complete the following sentences and translate them:

1. Investigation means ...
2. In his covert functions the policeman penetrates ...
3. In his overt functions the policeman defines ...

4. A highly professional policeman should possess ...

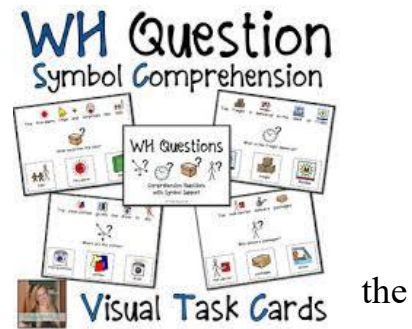
5. The informant is a person who ...

7. Read and translate without dictionary, then retell:

1. Jim is a former graduate of a police school.
2. Criminal investigation is the keystone of his work.
3. He does his best to combine theory and practice.
4. His detective activity includes overt and covert work.
5. Jim works with informants.
6. They give him confidential information.
7. Sometimes he lays an ambush.
8. When Jim works at the crime scene he usually defines the crime quickly and accurately.

8. Make special questions to the sentences:

1. Criminal investigation is the keystone of the police service.
2. Investigation means a search.
3. A highly professional policemen possess some sleuthing powers.
4. The work of an investigator includes covert and overt functions.
5. An investigator lays an ambush and conducts surveillance, works with the informants.
6. The informant is a person who gives the police officer confidential information about a crime.
7. An investigator takes active measures to detect offender.
8. Crime prevention is much more important than criminal investigation.



9. Read and replace the words:

Investigation of crime



1. Criminal investigation - (это основной принцип) of the police service.
2. (Расследование преступлений) means a search for the truth, for the offender, for witnesses who (помогает воссоздать произошедшее) and will present evidence of it in (суд).
3. A highly professional policeman (должен обладать) such attributes of the policeman's profession as (преданность, мужество, ум, самообладание), i.e. some sleuthing powers.
4. Policeman's work includes (гласные и негласные) functions. In his covert work police officer (устраивает засаду, проводит негласный надзор, внедряется в преступный мир, работает с информаторами).
5. The informant is a person who (предоставляет офицеру полиции секретную информацию) about crimes.

6. In cases the investigating officer works at the crime scene he (квалифицирует преступление) and (осматривает) the scene very carefully (до того, как нарушит что-либо).
7. He (принимает) active measures to detect the offender that is (опознать, обнаружить и задержать злоумышленника).

10. Put the letters in underlined words in the necessary order, and then translate sentences:

1. A detective works much with rnmistafon.
2. erdcunevor kowr is one of the aspects of a detective function.
3. sahmikmrpans and nirgvid lropta rca are indispensable policeman's functions.
4. Usually he eidsefn recim quickly.

11. Complete the following dialogues learn one of them by heart:

A

- A. Criminal investigation is the keystone of the police service, isn't it?
 B.
- A. What does criminal investigation mean?
 B.
- A. Why is criminal investigation indispensable?
 B.
- A. Who takes part in criminal investigation?
 B.
- A. What does the policeman's work depend on?
 B.
- A. What kind of work should a police officer do operating in plain clothes?
 B.
- A. What does the investigating officer do at the crime scene?
 B.
- ..
- A. What is the final stage of criminal investigation?
 B.
- ...

B

- A.?
- B. Criminal investigation is an inquiry into the facts surrounding the commission of the criminal offence.
- A.?
- B. A highly professional policeman should possess such attributes of the policeman's profession as dedication, courage, intelligence, competency, self-command, specialized investigative aptitudes and professional instinct.
- A.
.....?
- B. Policeman's work includes covert and overt functions.
- A.
.....?
- B. The informant is a person who gives the police officer confidential information about crimes.
- A.
.....?
- B. No doubt quick and accurate crime investigation is essential but crime prevention is much more important.

12. Complete the first and the second part of the sentences using A and B columns:

A

1. The investigator is to be very attentive ...
2. The great benefit from a college education is ..
3. The investigator is the person ...
4. The patrolman is to deal with special incidents...
5. The policeman is to deal daily with people ...
6. In any interrogation the investigator is to determine...
7. We are omitting to do our duty as citizens ...
8. The applicant is to pass entrance examinations ..
9. In every sense the patrolman is the police service...



10. Citizens are to see the officer as a protector of their safety and property.

B

I. who is investigating crime.

II. that it is training future officers to think.

III. when he is at the crime scene.

IV. who are testing his patience, character and courage.

V. which are requiring police attention.

VI. because the officer is always ready to be helpful for the public.

VII. before he is a student of a college.

VIII. whether the suspect is telling the truth.

IX. if we are not doing what we are to do.

X. because he is the visible representative of the police department in the eyes of citizens.

13. Select the appropriate word:

*accused, evidence, convicted, sentenced, tried,
arrested, guilty, put, suspected*



The police had 1) ... Paul Williams for months, and when they finally gathered some real 2) ... against him he was 3)... by the police and 4) ... of trafficking in drugs. A few weeks later he was 5) ... for the crime. The jury were quickly convinced that he was 6) ... of drug-trafficking, so he was 7) Of the crime and 8).... To ten years in prison. The police were satisfied they had managed to... 9) ... such a dangerous criminal behind bars.

JUST FOR FUN



No one in the history of texting has ever meant to write "ducking."



RD

What do ghosts use to organize data?

Spreadsheets.



RD

SUPPLEMENTARY READING



Cybercrime Investigation Tools and Techniques You Must Know!

Cybercrime is a growing threat that can have serious consequences for businesses and individuals alike. However, the complex process of investigating cybercrime can be intimidating and confusing, especially for those without a background in cybersecurity.

Cybercrime investigators are law enforcement professionals who specialize in investigating computer-related crimes. They use their knowledge of computer science, law, and investigative techniques to gather evidence and identify suspects. Cybercrime investigators may work for a variety of organizations, including law enforcement agencies, private companies, and government agencies.

The goal of cyber crime investigation is to identify the source of the crime, gather evidence, and present that evidence in a way that can be used in court to prosecute the perpetrator. Cybercrime investigators may work for law

enforcement agencies, government agencies, or private companies, and their job duties may include conducting investigations, preparing reports, and providing testimony in court.

What is Cybercrime Investigation?

Cybercrime investigation is the process of identifying, analyzing, and mitigating computer-based crimes and other forms of malicious activity that occur in cyberspace. It involves the use of specialized tools and techniques to investigate various types of cyber crimes, such as hacking, phishing, malware, data breaches, and identity theft.

The investigation process is conducted by cyber crime investigators, who are responsible for conducting thorough and accurate investigations, preserving evidence, and collaborating with law enforcement agencies to bring cybercriminals to justice. The importance of cybercrime investigation cannot be overstated, as cybercrime continues to evolve and pose significant risks to businesses, governments, and individuals around the world.

Cybercrime investigation is a complex and constantly evolving field, as new threats and technologies emerge. As a result, investigators must stay up-to-date with the latest techniques and tools in order to effectively investigate and mitigate cyber crimes.

Top 5 Cybercrimes

Cybercrime is a broad category that encompasses a wide range of criminal activities. Here are the top 5 cyber crimes that businesses and individuals should be aware of:

1. Phishing and Scam

Phishing is a type of social engineering attack that targets the user and tricks him by sending fake messages and emails to get sensitive information about the user or trying to download malicious software and exploit it on the target system.

2. Identity Theft

Identity theft occurs when a cybercriminal uses another person's data like credit card numbers and personal pictures without the permission of that person to commit fraud or a crime.

3. Ransomware Attack

Ransomware attacks are a very common type of cybercrime, ransomware is a type of malware that has the capability to prevent users from accessing all of their personal data on the system by encrypting them, and then asking for a ransom in order to give access to the encrypted data.

4. Hacking/Misusing Computer Networks

This term refers to the crime of unauthorized access to private computers or networks and misuse of it either by shutting it down or tampering with the data stored or other illegal approaches.

5. Internet Fraud

Internet fraud is a type of cybercrime that makes use of the internet and it can be considered a general term that groups all of the crimes that happen over the internet like spam, banking fraud, theft of service, and so on.

These cyber crimes can happen through a variety of methods, including social engineering, exploiting vulnerabilities in computer systems or networks, and using malware to gain access to sensitive information.

It is important for businesses and individuals to take proactive measures to protect against these types of cyber crimes, such as implementing strong security measures and staying vigilant against suspicious activity.

Types of Cyber Criminals

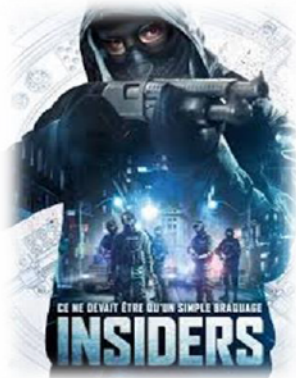
Cybercrime is a global problem that is perpetrated by many different types of criminals. Here are five types of them:

1. Hackers



Individuals who use their expertise to gain unauthorized access to computer systems or networks for various reasons such as stealing data or causing damage. Hackers can be motivated by financial gain, political or social causes, or simply a desire to test their skills.

2. Insiders



Individuals who have authorized access to computer systems or networks but misuse their access for personal gain or to harm the organization. Insiders can be employees, contractors, or other trusted individuals who use their access to steal data, disrupt systems, or engage in other criminal activities.

3. Organized Crime Groups

Groups of individuals who engage in cybercrime for financial gain or other criminal activities. Organized crime groups can be highly sophisticated, using advanced techniques to evade detection and cover their tracks.

4. Nation States

Governments or state-sponsored groups use cyber-attacks for political or military purposes. Nation-states can use cyber attacks to gather intelligence, disrupt systems, or gain a strategic advantage over other countries.



5. Cyberterrorists

Individuals or groups that use cyber attacks to cause fear, disrupt systems, or harm individuals or organizations. Cyberterrorists can be motivated by political or social causes and may use a variety of techniques to carry out their attacks.

Each of these types of cyber criminals presents a unique threat to businesses and individuals. It is important for organizations to take proactive measures to protect against these threats, such as implementing strong security measures,

conducting regular security audits, and staying up-to-date with the latest cybercrime trends and threats.

Cybercrime Investigation Tools

Here are some of the most common cybercrime investigation tools used by investigators:

1. Digital Forensics Software

It is used to recover deleted files, analyze metadata, and examine network traffic logs. Popular digital forensics software includes tools like EnCase, FTK, and Autopsy.

2. Network Analysis Tools

They are used to monitor network traffic, identify suspicious activity, and track the flow of data.



3. Malware Analysis Tools

They are used to analyze and reverse engineer malware

to understand its behavior and identify its source. Malware analysis tools include IDA Pro, OllyDbg, and Binary Ninja.



4. Password Recovery Tools

They are used to recover passwords from encrypted files, databases, or other sources of digital evidence. Password recovery tools include tools like Cain and Abel, John the Ripper, and Hashcat.

ТЕМА IV. ПОНЯТИЕ И ВИДЫ IT ДОКАЗАТЕЛЬСТВ



1. *Part of speech: article.*
2. *Reading and speaking: Digital evidence*
3. *Grammar reference: Simple Tenses; Types of questions*
4. *Listening and speaking*
5. *Reading and discussion*
6. *Supplementary reading*

ARTICLES

a the an

All countable nouns need an article when used in the singular. The article can be either *a/an* or *the*.

Indefinite article *a/an* is used:

To talk about indefinite things;

After the verbs *be* and *have*;

With money (*a/one* pound), fractions (*a/one* quarter), weight/measures (*a/one* inch), whole numbers (*a/one* thousand), price/weight (*€1/a* liter), frequency/time (*twice a* day), distance/fuel (*30 miles a* gallon), distance/speed (*20km an*

hour) and illnesses (a headache, a cold).

In general, definite article **the** is used with:

- superlatives (*most interactive*)
- time periods (*nineteenth century/1960s*)
- unique things (*government/moon/earth*)
- specified things (*knowledge of most employees*)
- regions and rivers (*east/River Amur*)
- very well-known people and things (*English novelist*)
- institutions and bodies (*World Health Organisation*)
- positions (*middle*)

It is *not* used with:

- names of countries, except for the UK, the USA and a few others
- abstract nouns (*poverty*)
- companies/bodies named after people/places (*Sainsbury's, Sheffield University*).

Example :

- 1) Research is *an* important activity in universities.
- 2) *The* research begun by Dr. Mathews was continued by Professor Brankovic.
- 3) *A* survey was conducted among 200 patients in the clinic.

1. **In the following sentences, decide if the words in italic are specific or not. Insert 'the' if specific.**

- 1) *Registry Editor* enables you to edit these values, but won't let you create them.
- 2) *__database managers* let you define *_____ data type* for *information* you want to store.
- 3) *__record* is collection of data about *particular person, place, or thing*.
- 4) *__beginning* of *fixed-length field* file contains information that defines *file's record structure*.

2 Complete the following text by inserting a/an/the (or nothing) in each gap :

1) _____ most database information is stored in 2) _____ fixed-length fields, so called because 3) _____ number of characters-spaces-that can be used for each field is determined when 4) _____ database is created. 5) _____ beginning of 6) _____ fixed-length field file contains 7) _____ information that defines 8) _____ file's record structure each field 's name, data type (usually numeric or alphanumeric), and length. In addition, 9) _____ structure might include information on 10) _____ format of 11) _____ data held in 12) _____ field; for example, 13) _____ field used to record dates might require 14) _____ MM-DD-YY (month-day-year) format. 15) _____ field can also be required to validate 16) _____ information entered into it; for example, if 17) _____ data entered into 18) _____ validating state field is not one of 19) _____ 50 postal service abbreviations, it will be rejected. 20) _____ rest of 21) _____ file is data, laid down in one continuous stream. 22) _____ locations at which specific pieces of data are recorded are determined by 23) _____ lengths allotted to each field.



**Reading and
Speaking**

affiliations, relationships, geolocation, routines, and other activities. This digital footprint can be active or passive.

An *active digital footprint* is created by data provided by the user, such as personal information, videos, images, and comments posted on apps, websites, bulletin boards, social media, and other online forums.

A *passive digital footprint* is data that is obtained and unintentionally left behind by the users of the Internet and digital technology (e.g., Internet browsing history). Data that are part of active and passive digital footprints can be used as evidence of a crime, including cybercrime (i.e., *digital evidence*).

This data can also be used to prove or disprove a matter being asserted; refute or support the testimony of a victim, witness, or suspect; and/or implicate or exculpate a suspect of a crime.

Data is stored on digital devices (e.g., computers, smartphones, tablets, phones, printers, smartTVs, and any other devices that have digital memory capacity), external storage devices (e.g. external hard drives and USB flash drives), network components and devices, servers, and the cloud.

The type of data that could be obtained is *content* and *non-content* data. *Content Data* means for example words in written communications or spoken words in audio files; e.g., videos, the text of emails, text messages, instant messages, and social media content.

Non-content data, or metadata, means data about content, such as the identity and location of users, and transactional data, such as information about the senders and recipients of telecommunications and electronic communications.

Before a digital device can be presented in court as direct or circumstantial evidence, its authenticity must be established (i.e. it must be proven that the evidence is what it claims to be).

EXERCISES

Цель заданий - активизация нового лексического материала, развитие навыков монологической и диалогической речи.

3. Read and translate the following groups of words with the common root:

Victim – victimless – victimize

Convict – convicted – conviction

Prison – prisoner – imprison – imprisonment

Suffice – sufficient – insufficient – sufficiently

Use – usual – usually – usage – abuse – abusive

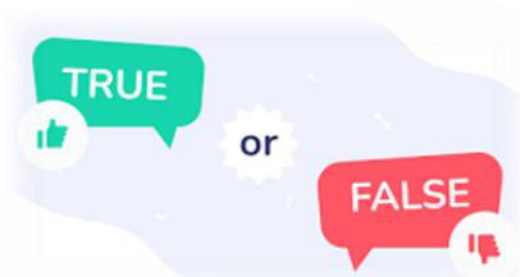
Human – inhuman – humane – humanity – humanitarian – humanism.

4. Find in the text above words and expressions.

- web pages;
- transactional data; -
- digital devices; -
- network components; -
- digital memory capacity; -
- testimony of a victim; -
- metadata
- circumstantial evidence
- psychological disorders.



the following Translate:



5. True or false?

- i. Circumstantial evidence includes emails, text messages, photos, videos, web pages, data from computers, mobile phones, and other electronic devices.
- ii. This digital footprint can be only passive.

- iii. Digital evidence is often used to investigate cybercrime.
- iv. Metadata means data about the senders and recipients of telecommunications and electronic communications.
- v. Data is stored on digital devices.



6. Guess the words by definitions. All of them are used in the text above:

- a) *the available body of facts or information indicating whether a belief or proposition is true or valid.*
- b) *the quantities, characters, or symbols on which operations are performed by a computer, which may be stored and transmitted in the form of electrical signals and recorded on magnetic, optical, or mechanical recording media.*
- c) *the information about a particular person that exists on the internet as a result of their online activity.*
- d) *the quality of being real or true.*
- e) *communication over a distance by cable, telephone, or broadcasting.*

7. Make ten special questions to the text above.



8. Read and translate the text, use dictionary if necessary:

Nanotechnology, the science of creating and using materials or devices at molecular and atomic sizes, is going to represent a new technological revolution.

These devices will fall in the range of 1 nanometre, which is equal to one billionth of a metre, to 100 nanometres (nm).



Nanobots, robots formed from molecular or molecular components, will be used in medicine to control and diagnose diseases. For example, they will be injecting and

will move through blood vessels destroying cholesterol molecular or cancer.

Nanocomputers, molecule-sized computers, may have the power of 100 workstations but only be size of a grain of sand. There will be two main types of molecular computers:

Quantum computers, based on quantum mechanics, may be millions of time faster than current computer. They will be so fast because they will be able to examine all possible answers to a query at the same time. This capability is made possible by qbits, **quantum bits**, which can be 0 or 1, or something in between, simultaneously.

DNA computers will use **DNA biochips** to perform the same functions as silicon microchips do today but at a much faster speed.

9. Read these extracts and replace the world in *italics* with words in the text above.

1. *A computer of this type* is a molecular computer that works biochemically. It 'computer' using enzymes that cause chain reactions.



2. In *a computer of this type*, data is processed by exploiting the strange qualities of quantum physics; the building blocks of computation are not transistor but caged atoms or qbits.

3. *It* has the potential to revolutionize the way live, from creating miniaturized ‘Star Trek’- like electronic gadgets to delivering medicines to specific placed within the human body.

4. The government plans to fund a study examining the feasibility of *molecule-sized robotic devices* that would positions atoms to build complex substances and products.

5. Scientists at an Israeli institute have developed a *very small one* – so small that a trillion of its kind fit into a test tub

10. Complete this funny text using these words:

<i>Brochure, improvements, innovation, manufacture, process, stage</i>
--

An inventor’s guide

So, you think you’ve finally come up with the invention that will change the world! Do you think that all those hours spent making (1) ___ to your original design and testing, re-testing and testing yet again are about to pay off? Well, before you start counting all that money you think you’re going to receive for your fabulous (2) ___ you’d better think again. You see, it’s a sad, but true, fact that the (3) ___ of getting something new on the market is a long one. Inventors must travel a rough and rocky road to get from the early development (4) ___ to the all-important commercial license of their invention. So, before you’re left with a cellar full of worthless gadgets that you simply cannot get rid of, consider the following carefully.

- Make a list of possible companies which might want to (5) ___ your product.
- Send a letter, or even better, a(n) (6) ___ describing your product to the companies on your list.

Finally, be patient, stay calm and never stop inventing. Even Alexander Graham Bell had his bad days!



11. Complete this text with words from exercise 10 using the context.

A digital era

Computers have changed the way we do everyday things, such as working, shopping and looking for information. We (1) ...houses with the help of PCs; we buy books or make flight reservations on the (2) ...; we use gadgets that spring to life the instant they are switched on, for example the mobile phone, the music player, or the car ignition, all of which use (3) .. . Many people now work at home, and they communicate with their office by computer and telephone. This is called “teleporting”.

With the appropriate hardware and software, a PC can do almost anything you ask. It’s a magical typewriter that allows you to type and (4)... any sort of document. It’s a calculating machine that makes (5) ... calculations. It’s a personal communicator that lets you interact with friends. It’s a small lab that helps you edit photos and movies. And if you like (6)... entertainment, you can also use it to relax with games.

12. Match the words in exercise 11 with following definitions:

1. tiny pieces of silicon containing complex electronic circuits
2. to make or draw plans for something
3. relating to money or how money is managed
4. involving the use of electric current in devices such as TV sets or computer
5. the large system of connected computers around the world
6. to produce text and pictures using a printer.



PARTICIPLE

The Participle is one of non-finite forms of the verb (a verbal). It has the following forms.

	Participle I		Participle II (Past Participle)
	Simple	Perfect	
Active Voice	doing	having done	—
Passive Voice	being done	having been	done

Relative clauses with the Participle I Simple and Participle II are often used in technical descriptions. They allow you to provide a lot of information about a noun using as few words as possible:

*Data line **linking** client to server = data line **which links** client to server.*

*The equipment **being set up** in the lab now = the equipment **which is being set up** in the lab now.*

*The technology **needed** to set up a home network = the technology **which is needed** to set up a home network.*

We don't use Perfect Participles in this case.



1. Complete these sentences using the proper form of the Participle:

2. A router is a special device (direct) message when several networks are linked.

3. A network is a number of computers and peripherals (link) together.

4. Fixed automation is suitable for products (make) in large volumes.

5. A LAN is a network (connect) computers over a small distance such as within a company.

6. The equipment (set up) now is designed to facilitate product changeover.

7. An interface (enable) dissimilar network to communicate is called a gateway.

8. A server is a powerful computer (store) many programs (share) by all clients in the group.

2. Link these sentences using a relative clause with the participle:

Example: a. The house has an electronic door-keeper.

b. It is programmed to recognize you.

*The house has an electronic doorkeeper **programmed** to recognize you.*

1. a. The house has an electronic doorkeeper.

b. It gives access to family only.

2. a. The house has a network.

b. It allows basic file-sharing and multi-player gaming.

3. a. Ann has designed a site.

b. It is dedicated to dance.

4. a. She has built in links.

b. They connect her site to other dance sites.

5. a. A hub is an electronic device.

- b. It connects all the data cabling in a network.
- 6. a. A bridge is a hardware and software combination.
- b. It is used to connect the same type of networks.

The **Participle Clauses** can also give information about reason, result, condition or time.



3 Choose the right form of the Participle in the following sentences:

1. *Having been learned / having learned* the principles of programming, I decided to write some programs for my course project.
2. *Searching /having searched* the Web, I was trying to find some information about artificial intelligence.
3. *When marketing / being marketed* a product, it is important to identify and meet the end-user's requirements.
4. *Worked / working* with the CAD system, the designer creates the lines and surfaces that form the object and stores this model in the computer database.
5. *Being equipped /equipping* with special conversion devices, the hybrid computer utilizes both analog and discrete representation of data.
6. *When writing/being written* a program, software developers try to define its purpose first.
7. *If having written / written* in a machine language, the program can be directly understood by a computer.
8. *Having been interacted/interacting* with a virtual reality program, you have a sense of being completely immersed in it.

4 Complete the sentences using the correct form of the Participle:

1. High-level languages are relatively sophisticated sets of statements (utilize) words and syntax from human language.
2. A bridge is a hardware and software combination (use) to connect the same types of networks.

3. (Install) a new program, the students were able to edit digital photos.
4. (Test) by an experienced test analyst, the program runs smoothly.
5. A program (contain) logic errors will run but it won't work properly.
6. With the help of media streaming one can listen to an audio file (download).
7. (Carry out) the tests, the engineers recorded the results.
8. The equipment (set up) in the lab now is very expensive.

5. Translate the following sentences into English:

1. В последнее время автоматизированные системы, ставшие более совершенными и сложными, во многом превосходят способности человека.
2. Яркими примерами жесткой автоматизации являются автоматические станочные линии и сборочные машины.
3. Жесткая автоматизация, характеризующаяся высокими темпами производства, подходит для производства изделий в больших объемах.
4. Переналадив и перепрограммировав оборудование для новой партии продукции, завод приступил к выпуску.
5. Переход с одного вида продукции на другой можно сделать, используя станки с числовым программным управлением.
6. Гибкая автоматизация - это форма программируемой автоматизации с ограниченным выбором продукции. В этом случае переналадка оборудования, выполняемая автоматически, происходит очень быстро.





LISTENING AND SPEAKING



Listen; fill in the missing words from the box:

Criminals; transnational; trace; connecting; private companies; evidence; collaboration space; facilitate; law enforcement

Cybercrime is, in nature _____. The suspect, criminals, and victims, they are differently located. Sometimes _____ is located in different countries.

So actually, the international coordination is mandatory. This _____ is quite versatile. Actually, this was designed to really expedite the process of information sharing in person. Interpol is assisting member countries to _____ their cybercrime investigation by _____ each other.

Nowadays, I think most of the evidence police need to investigate cybercrime resides with _____. Without support from the private companies, law enforcement is not able to bring _____ into justice. Evidence is now located in the private companies' hands, not on the side of _____. We need to collaborate with them.

By receiving information from them, then we start to _____ back criminals.

2. Discuss the following questions with the partner:



1. What can you say about cybercrime? Is it transnational in nature?
2. Why is cooperation between Interpol and private companies necessary?

READING AND DISCUSSION



Physical Evidence

Read and translate the text paying attention to new words:

Temporary custody ['kʌstədi] – *временное содержание под стражей*

Precautions [prɪ'kɔːʃn] – *предосторожность, меры предосторожности*

Microscopic debris ['deɪbriː] – *микроскопические частицы*

Paint - *краска*

Fibre ['faɪbə] – *волокно, фибра, нить*

Circumstantial [sɜːkəm'stænsjəl] evidence – *косвенные улики*

Corrobo'rative evidence – *подтвержденные (неопровержимые) улики*

Latent prints – *латентные (невидимые, скрытые) отпечатки*

Casting equipment – *оборудование для снятия гипсовых слепков*

To dust and develop fingerprint – *снять и проявить отпечатки пальцев*



The finding, collecting and preservation of physical evidence are the most important phases in a criminal investigation.

Physical evidence is of value only if it helps prove a case or clear a suspect. The most valuable evidence may be worthless if inefficiently handled.

Physical evidence is something that is concrete, something that can generally be measured, photographed, analyzed, and presented as a physical object in court. Circumstantial evidence is a specific circumstance. For example, a suspect might be accused of burglary, and the shoes he is wearing are proved to have made certain impressions found at the scene of a crime. The shoes and the imprint are physical evidence, while the fact that the suspect was wearing the shoes when arrested is circumstantial evidence. Someone else could have worn the shoes at the time the burglary was committed, therefore that type of evidence is circumstantial.

The intrinsic [ɪn'trɪnsɪk] (ИСТИННЫЙ, ПОДЛИННЫЙ,) value of physical evidence often depends on its location. A hat on one's head has little significance but if it is found beside a murder victim it might become of great importance.

There is no such thing as a perfect crime, a crime that leaves no traces - there is only the inability to find the evidence.

When the investigating officer arrives at a crime scene it is necessary that he should first protect the scene and prevent anybody from touching any object.

The preliminary survey is to acquaint [ə'kweɪnt] (ОЗНАКОМИТЬ) the investigating officer with the entire scene and its important details. After he has completed his preliminary survey the photographer may go to work. It is important that the investigator should accompany the photographer, pointing out

various objects of possible evidential value. He should note possible location of latent prints (invisible prints), and guard against contamination [kəntæmɪ'neɪʃn] (порча) of such objects and surfaces.

After the general scene has been completely photographed, the officer with casting equipment casts(делает слепки) all possible imprints, if such are present, and then the fingerprint man should work on various objects. He should also note movable objects where fingerprints may be found, and should carefully remove them to a safe place for dusting and developing later.

As the fingerprint man (дактилоскопист) completes his work, the investigator may go to work thoroughly searching the scene of possible evidential value.

As evidence is found, it should be marked, carefully packaged, each article separately, and placed in some locality where it will not be destroyed or contaminated, until it is transported to a laboratory.

1. Translate into Russian:

Preservation of physical evidence, to clear a suspect, valuable evidence, chain of evidence, temporary custody, a shoe imprint, circumstantial evidence, corroborative evidence, intrinsic value, preliminary survey, entire scene, casting equipment, movable objects.

2. Find synonyms, translate them:

<i>To look for</i>	<i>a criminal</i>
<i>To analyze</i>	<i>invisible</i>
<i>A possibility</i>	<i>imprint</i>
<i>An article</i>	<i>to search for</i>
<i>Latent</i>	<i>a photograph</i>
<i>Impression</i>	<i>to examine</i>
<i>A picture</i>	<i>probability</i>
<i>A perpetrator</i>	<i>an item</i>



3. Find antonyms, translate them;

Preserve *overlook*

Mind *to solve crime*

Note *destroy*

To commit crime *positive*

Negative *forget*

5. Complete the sentences using the words in brackets:

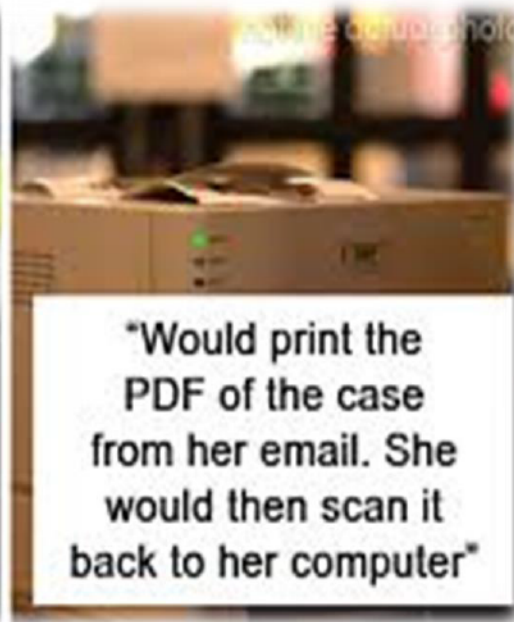
(circumstantial, value, a cast, examined, the preliminary survey, to clear, contamination, to prove, marked, fingerprints, gathering, removed, corroborative, to protect)

1. Physical evidence is of value only if it helps ... a case or ... a suspect...
2. The first phase in handling physical evidence is ... all potential evidence at the scene of a crime.
3. If a shoe imprint is found at the crime scene, ...should be made and compared with the shoe.
4. ...may be found on any object of possible evidential value.
5. No article should be moved or touched until it has been photographed and ... for fingerprints.
6. If there are no witnesses, the investigator needs ... evidence.
7. The first responsibility of an officer is ... the crime Scene.
8. The investigating officer should prevent ... of objects which may bear fingerprints.
9. After being photographed objects where fingerprints may be found should be carefully ... from the scene.
10. When the fingerprint man completes his work, the investigating officer should examine the Scene for articles of Possible evidential...
11. All evidence found at the scene of a crime should be ... and packaged carefully and transported to a laboratory.

12. The aim of ... is to acquaint the investigator with the entire crime scene and its important details.

13. Besides physical and corroborative there is also ... evidence.

JUST FOR FUN



SUPPLEMENTARY READING



Types of Evidence in Writing

1. Anecdotal Evidence

Anecdotal evidence comes from personal experience. It can involve a story about something that happened to you, or an observation you made about friends, relatives, or other people.

An informal interview with someone affected by the topic you are writing about is also a form of anecdotal evidence. That interview may have been conducted by the author of the essay or presented on a news program.

Although it is not considered very strong evidence, it does have a purpose. Describing a personal experience early in the essay can help establish context, show relevance of the subject, or be a way to build a connection with the audience.

2. Testimonial Evidence

Offering the opinion of an expert is referred to as testimonial evidence. Their opinion can come from an interview or quote from a book or paper they authored.



The words of someone who is considered an expert in a subject can provide a lot of support to the point you are trying to make. It adds strength and shows that what you are saying is not just your opinion, but is also the opinion of someone that is recognized and respected in the subject.

If that expert has an advanced degree from a notable university, such as Princeton or Stanford, then make sure the reader knows that. Similarly, if they are the president or director of an institution that is heavily involved in the subject, then be sure to include those credentials as well.

3. Statistical Evidence

Statistical evidence involves presenting numbers that support your point. Statistics can be used to demonstrate the prevalence and seriousness of a phenomenon.

When used early in the essay, it informs the reader as to how important the topic is and can be an effective way to get the reader's attention.

For example, citing the number of people that die each year because they weren't wearing a seat belt, or the number of children suffering from malnutrition, tells the reader that the topic is serious.

In addition to stating statistics in the body of the essay, including a graph or two will help make the point easier to understand. A picture can be worth a thousand words also applies to graphs and charts.

4. Textual Evidence

Textual evidence comes directly from a source document. This could be a literary work or historical document. It is frequently used in an argumentative essay or as part of a compare-and-contrast type of academic assignment.



For example, if conducting a character analysis of a character in a novel, then identifying key sentences that provide examples of their personality will help support your analysis.

There are several ways of incorporating textual evidence: quoting, paraphrasing, and summarizing.

Quoting statements from the character themselves can be used to demonstrate their thought processes or personality flaws. Likewise, using the words of the author that describe the character will add support to your premise.

5. Analogical Evidence

An analogy is an example of a situation, but presented in a different context. Using an analogy is a great way to explain a complicated issue that is simpler and easier to digest.

Medical doctors often use analogies to describe health-related issues. For example, they might say that getting a yearly medical exam from your primary physician is like taking your car to the mechanic once a year to make sure everything is running okay.

One rule of thumb about analogies is that the simpler they are, the more easily understood. The analogy should have a degree of similarity with the issue being discussed, but, at the same time, be a bit different as well. Sorry about that; it's a balance.

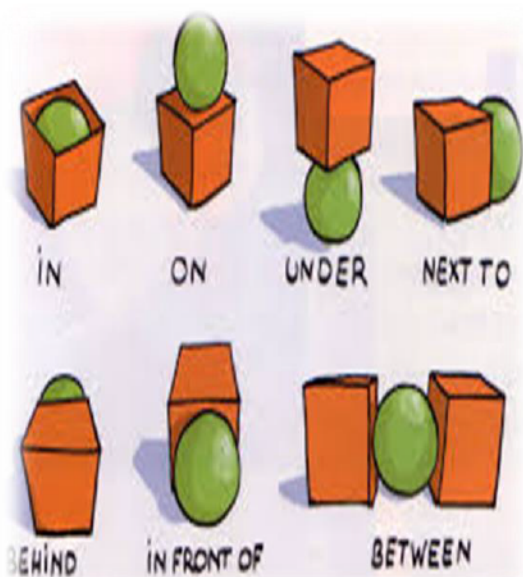
6. Hypothetical Evidence

Hypothetical evidence is presenting the reader with a "what if" kind of scenario. This is a great way to get the reader to consider possibilities that they may not have thought of previously.

One way to present a hypothetical is to pair it with a credible statistic. Ask the reader to consider what might happen in the context of those numbers.

Hypothetical Evidence

- Creating a hypothetical situation to support a claim
- **DO NOT USE THIS UNLESS.....** The hypothetical is given from a specialist/authority on the topic.
- Example: "If we eliminate grades, imagine how students will stop doing their homework and paying attention in class."
- Other examples?



PREPOSITIONS OF TIME		
AT	ON	IN
AT 7 O'CLOCK	ON SATURDAY	IN JANUARY
AT BEDTIME	ON THE 15th	IN SPRING
AT CHRISTMAS	ON MARCH 25th	IN 2015
AT EASTER	ON MONDAY	IN 10 MINUTES
AT MIDDAY	ON EASTER DAY	IN 21st CENTURY
AT NIGHT	ON TUESDAY	IN THE 60s

Prepositions are parts of speech that show relationships between words in a sentence.

1. Fill in:

noun + preposition	
verb + preposition	
Adjective(+noun)+ preposition	
phrasal verb	
preposition of place	
preposition of time	
phrase	

NB! The difference between phrasal verbs and verbs with prepositions: The cars are *made in* China. (verb + preposition = easy to understand) The writer *made up* the story in a night. (phrasal verb = hard to understand).

2. Study these further examples of preposition use and decide on their type :

1. There are a number of viruses to be considered ... (noun +)
2. The results would be applicable to all software programs ... ()

3. ... the data was gathered from a questionnaire ()
4. All the items were placed within their categories ()
5. The results of the investigation are still pertinent ... ()
6. The respondents had spent on average 4.9 years ... ()
7. You can still buy *computers* made in the *Belorussia* ... ()
8. ... within a short period of time ().

3 Insert a suitable preposition before or after the nouns in the sentences below :

1. The suit is presented in support _____ the value of programmer's work.
2. A small change _____ soft demand can lead to large price rises.
3. He applied _____ the committee for a grant.
4. The standard icons can be found _____ many computer systems and mobile devices.
5. Through our research we have collected a range _____ definitions of these soft skills.
6. Another study gives further support _____ this viewpoint.
7. All modern computers derive _____ wartime decoding machines.
8. From a brand architecture viewpoint, the company maintains a "monolithic" brand identity - everything being associated _____ the Apple.
9. Most students use search engines to look _____ information.
10. The evidence needs to be looked _____ more carefully.



Reading and Speaking



i. Study the following words and combinations:

area ['eəriə] – площадь ,район , область

burglary ['b ə:gləri] – насильственное проникновение с целью совершения преступления, кража со взломом

larceny ['la:sni] - воровство

theft [θeft] – воровство, кража

homicide ['hɒmisaɪd] - убийство, лишение жизни человека

murder ['mɜ:də] - убийство, лишение жизни человека

traffic crime ['træfɪk] - дорожное преступление

motor vehicle ['moutə 'vi:ɪkl] – автомобиль, машина

motor vehicle theft (auto theft) ['ɔ:tou] [θeft] – угон автомашины

point [pɔɪnt] - указывать

circumstances ['sə:kəmstənsɪz] - обстоятельства

significant [sig'nɪfɪkənt] – значительный, важный, существенный

enable [ɪ'neɪbl] – давать возможность

frequently ['fri:kwəntli] - часто

narrow ['nærou] – суживать(ся), уменьшать (ся)

preliminary [pri'li:mɪnəri] - предварительный

detain [di'teɪn] - задерживать

witness - понятой

participant [pa:'tɪsɪpənt] - участник

urgent ['ɜ:dʒənt] - срочный, крайне необходимый

summon ['sʌmən] - вызывать

overlook [ˌoʊvə'lʊk] – 1.проглядеть; 2. Не заметить

blood [blʌd] - кровь

stain [steɪn] - пятно

stub [stʌb] - окурок

ash [æʃ] - зола, пепел

striking ['straɪkɪŋ] – поразительный, замечательный

to give first aid to a victim - оказать первую помощь потерпевшему

call an ambulance ['æmbjuləns] – вызвать машину скорой помощи



Part A

Observation of a crime scene

What is a crime scene? Crime scene means the place or the area where the crime such as burglary, larceny, homicide or murder, traffic crime or motor vehicle theft, etc. takes place.

Crime scene search is one of the most important sources of information which enables the officer to answer the questions: What? Where? When? How? Why? Who? and What for?

The process of a crime scene search usually includes four stages: the preliminary, general observation, detailed search and final stages.

At the preliminary stage the investigator takes measures to detain any suspect or suspects, ensures crime scene protection, establishes eyewitnesses of the crime, prepares proper crime techniques, chooses and instructs witnesses, gets information of the happening. And of course he gives first aid to a victim if it's necessary or calls an ambulance.

At the stage of general observation the investigator reconstructs the happening, analyses the operational conditions, makes a plan for the search. He also ensures taking pictures of the scene and its objects, making plaster casts of footprints and developing and taking fingerprints.

At the stage of detailed examination the investigator tries to answer a lot of different questions: Is it possible to identify the salient features of the criminal's modus operandi? What are these features? Where was the entrance to the scene? Are there any traces of criminal act, e. g. fingerprints, footmarks, blood stains on the objects? Are there cigarette stubs or ashes? Was the criminal smoking at the crime scene? Who can it be? What are his distinctive marks? The successful investigator does not forget to note negative facts: Why is the weapon absent? Why are there no fingerprints or blood stains when it is natural to find them? etc. The answers to all those and many other questions help the investigator to build a hypothesis of the crime commission.

At the final part of observation the investigator makes conclusions taking into consideration all available information, packs the traces of the crime for a crime laboratory, makes a record of the crime scene observation and if necessary brings the criminal action.

Part B

The work of an operative group at the crime scene

An operative group consists of an investigator, a field-criminalist (an exhibits officer), an operative (the inspector of the Criminal Detection Department), a divisional inspector, a medical expert, a bobby handler (a

dog-guide). Each of them has its own duties at the crime scene. They should master special means, methods and forms of crime solution and work in close cooperation to solve the crime quickly and accurately.



An investigator or an operative directs crime scene investigation and informs the participants of the search what and where to search minding not to destroy and overlook any valuable evidence. He locates and apprehends a suspect and a criminal, identifies a criminal using the methods of identification: portrait parle, photography, the artist's sketch and identikit (photo fit), modus operandi, line-up, fingerprinting, voice printing, handwriting. The operative also takes measures for search, discovery and seizure of stolen property and instruments of a crime.

Sometimes an operative or an investigator has to combine the duties of different specialists of an operative group and conduct the primary investigation if he is the first to come to a crime scene.

A field-criminalist (an exhibits officer) helps an investigator to solve a crime. The role of an exhibits officer in any investigation is complex. He is responsible for crime scene and exhibits integrity. He develops and takes traces of the crime act (fingerprints, footprints, a sample of hair, blood, secretions, fibers etc.) and packs the traces of the crime for a forensic laboratory, makes plaster casts, etc.

A divisional inspector ensures crime scene protection, helps the operative to find witnesses and eyewitnesses, to apprehend a suspect.

A medical expert gives first aid to a victim or conducts an external examination of the corpse.

A bobby handler helps to define, to locate and apprehend a criminal.

Part C

Key Technologies in Crime Scene Observation



- **3D Scanning and Imaging:**

3D laser scanning and photogrammetry provide detailed, accurate documentation of crime scenes, allowing for precise measurements and virtual reconstructions.

- **Digital Forensics:**

This field focuses on analyzing digital evidence found on computers, phones, and other devices, including data recovery and analysis.



- **DNA Analysis:**

DNA profiling helps identify individuals, match evidence, and establish relationships between victims and perpetrators.

- **Alternative Light Photography (ALF):**

ALF enhances the visibility of trace evidence like bloodstains, fibers, and fluids by using specialized light sources to illuminate specific wavelengths.

- **Fingerprint Analysis:**

Advanced techniques, including automated fingerprint comparison systems and superglue fuming, aid in identifying and developing latent prints.



- **Ballistics Analysis:**

This field analyzes bullet trajectories, firearm types, and other ballistic evidence to determine the circumstances of a shooting.

- **AI and Machine Learning:**

AI is being used in various forensic tasks, including facial recognition, automated analysis of evidence, and predictive policing.

- **Next-Generation Sequencing (NGS):**

NGS allows for deeper and more comprehensive DNA analysis, providing more detailed information from smaller samples.

- **Proteomics:**

Analyzes proteins in biological samples like blood and bones, potentially providing more information about victims and perpetrators.

- **Documentation and Record-Keeping:**

Digital documentation of crime scenes, including photographs, videos, and 3D models, ensures that evidence is preserved and available for review.



- **Biometric Technologies:**

Fingerprinting, facial recognition, and other biometric technologies are used for identification purposes, both at crime scenes and in databases.

- **Geographic Information Systems (GIS):**

GIS software like ArcGIS helps analyze crime patterns, identify hot spots, and allocate resources effectively.

- **Mobile Technology:**

Smartphones, tablets, and other mobile devices are used for rapid identification, data transfer, and communication.

EXERCISES

Цель заданий - активизация нового лексического материала, развитие навыков монологической и диалогической речи.

1. Translate into English:

Предварительный осмотр, вещественные улики, отпечатки пальцев, составить протокол, принять действенные меры, приметы, осматривать место



происшествия, важный источник информации, задержать подозреваемого, установить очевидцев, мысленно воссоздать произошедшее, сфотографировать место происшествия, составить гипсовые слепки, выстроить версию, составить протокол, возбудить уголовное дело.

2. Make word combinations using the words from column A and B, translate them:

A	B
1. To apprehend	1. underworld
2. To establish	2. hypothesis
3. To make	3. search, discovery and seizure
4. To build	4. plaster casts
5. To conduct	5. contact
6. To penetrate	6. a criminal

3. Find the synonyms

1) to arrest a criminal	a) a photofit
2) identikit	b) an investigation
3) to take pictures	c) a dog-guide
4) detection	d) to search crime scene
5) to examine a crime scene	e) to photograph
6) a bobby handler	f) an exhibits officer
7) a field criminalist	g) to apprehend a criminal
8) to get	h) to learn
9) testimony	i) a trial
10) court	j) a witness
11) to come to know	k) to obtain

4. Add the definitions of the corresponding actions or notions:



1. The process of observing a crime scene and locating its objects is called
2. A group which goes out to the crime scene is called ...
3. All articles found at the crime scene

which help to prove a case are called ...

4. The prints of the hands left by a criminal on objects which he touched during the commission of the crime are called ...
5. A person who takes fingerprints and footprints and other traces of the crime act is called ...
6. A person who conducts an external examination of the corpse is called ...
7. If a person breaks the law it means that he commits

5. Match the columns

- | | |
|-----------------------------------|----------------------------------|
| 1. the preliminary investigation | a. ВНЕШНИЙ ОСМОТР |
| 2. plaster casts | b. ЗАЩИТА МЕСТА ПРОИСШЕСТВИЯ |
| 3. general observation | c. ПРЕДВАРИТЕЛЬНОЕ РАССЛЕДОВАНИЕ |
| 4. the final stage | d. ГИПСОВЫЕ СЛЕПКИ |
| 5. stolen property | e. ЗАКЛЮЧИТЕЛЬНЫЙ ЭТАП |
| 6. external examination | f. ОБЩИЙ ОСМОТР |
| 7. other participants in the case | g. ПЯТНА КРОВИ |
| 8. blood stains | h. ДРУГИЕ УЧАСТНИКИ |
| 9. crime scene protection | i. ПОХИЩЕННОЕ ИМУЩЕСТВО |



6. Complete the following sentences on the basis of the text:

1. An investigator makes a plan of search in order to ...

2. A field criminalist finds, develops, takes fingerprints and footprints in order to
3. To identify and locate a criminal an operative is to ...
4. A divisional inspector ensures crime scene protection in order to ...
5. An operative uses the methods of identification in order to ...
6. In order to help a victim a medical expert must ...
7. In order to apprehend a criminal a bobby handler is to ...
8. To bring a criminal action an investigator is to ...

7. What stage an investigator performs the following action act at?

- | | |
|--|--|
| At the preliminary stage | a) <i>brings a criminal action.</i> |
| | b) <i>takes pictures of the objects.</i> |
| At the stage of general observation | c) <i>takes measures to detain any suspect.</i> |
| | d) <i>gives first aid to a victim.</i> |
| | e) <i>makes a record of the crime scene observation.</i> |
| At the stage of detailed examination | f) <i>ensures taking fingerprints.</i> |
| | g) <i>tries to reconstruct the happening.</i> |
| | h) <i>analyses the situation.</i> |
| At the final stage part of observation | i) <i>makes a plan of search</i> |
| | j) <i>establishes eye-witness and witnesses</i> |

8. Define the specialists perform the following actions:

- | | |
|--|--|
| An inspector of the CID (an operative) | a) brings a criminal action. |
| | b) takes pictures of the objects. |
| | c) gives first aid to a victim |
| An investigator | d) develops and takes fingerprints |
| | e) reconstructs the happening. |
| A medical expert | f) makes a record of crime scene search. |
| | g) packs the traces of the crime |
| | h) for a crime laboratory. |
| An exhibits officer | i) directs crime scene investigation. |
| | j) makes plaster casts. |
| | k) interrogates a suspect |

9. Circle the correct words, then translate the text

Most of us are familiar (1) **with/within** Crime Scene Investigators, or CSIs, because we see them in various television series all the time. They are usually seen driving around a big city in big cars wearing designer clothes. This glamorous image is far from the reality (2) **of/off** being a CSI though, which can be very unpleasant and even dangerous.



Crime Scene Investigators work (3) **at/with** police officers to investigate serious crimes. They are (4) **among/about** the first people to arrive at a crime scene. They are responsible (5) **from/for** collecting and interpreting any evidence they can find that may help catch the criminals involved.

It's true to say that it takes a special kind of person to be a CSI. They have to be patient and methodical, and also be able to pay very close attention (6) **to/toward** detail. CSIs must never hurry, even when they're (7) **in/under** pressure. This is because if they rush (8) **between/through** a job, they may miss a tiny piece of evidence which could solve the case. And that really would be a crime



10. Speak on the situation

Situation 1. *You are a police instructor of the police academy. The topic of your seminar is "Crime Scene Search". Speak about crime scene search using Scheme*

Crime scene search

Preliminary

*to ensure crime scene protection;
to establish;
to give first aid;
to call for an ambulance;*

General Observation

*to make a plan of search;
to reconstruct the happening;
to pack traces for the forensic laboratory;
to make plaster casts;
to identify a criminal
to take fingerprints, etc*

Detailed Search

*to answer a lot of "wh"
to get information*

Final Stage

*to make a record of the crime scene search;
to bring a criminal action.*

Situation 2. You are an investigator of the Criminal Investigation Department. Speak about the work of an operative group at the crime scene using Scheme II.

Scheme II

to analyze the situation;
eyewitnesses;

to make a plan of search;
to establish corpus delicti;
to make a record of the;
to observe crime scene;
to interrogate a suspect;

An investigator

to take the traces of a crime act;

to take fingerprints, footprints;
to pack the traces for a laboratory;
to make plaster casts;

A field criminalist

to find witnesses,

to identify a criminal:
a) photography
b) identikit
c) line-up
d) portrait parle

An inspector of the CID

The work of an operative group at the crime scene

A divisional inspector

to protect crime scene;
to find witnesses
to find eye-witnesses

A medical expert

to give the first aid to a victim;
to examine a corpse;

A bobby handler

to locate a criminal;
to apprehend a criminal



11. Try to learn this poem on the topic "Crime Detection" by heart

Detective Rap

Whenever I'm at the scene of a crime,
 I know what to do if I rap this rhyme.
 Look! Don't touch! For good detection,
 Circle the scene in one direction
 Take your powder, tape and brush,
 Collect those fingerprints. Hey, don't rush!
 Stop to think for a while, and then
 Write in your notepad: Who? Where? When?
 Your magnifying glass is the thing for you
 To see small details (Label each clue!)
 Look around you. Who can you see?
 Question the witnesses thoroughly.

