

Министерство образования и науки Российской Федерации
Федеральное государственное бюджетное образовательное
учреждение
высшего профессионального образования
«Томский государственный университет систем управления и
радиоэлектроники»

КАФЕДРА ИНОСТРАННЫХ ЯЗЫКОВ

ENGLISH FOR STUDENTS OF ENGINEERING FACULTIES (BASIC LEVEL)

Учебное пособие (часть 1)

2013

Давыдова О. В. Потапова Т.Н.

English for students of engineering faculties (basic level): Учебное пособие (часть 1) / Давыдова О. В. / Потапова Т.Н.. – 2013. 51 с.

Министерство образования и науки Российской Федерации, Федеральное государственное бюджетное образовательное учреждение высшего профессионального образования «Томский государственный университет систем управления и радиоэлектроники», Кафедра Иностранных языков. – Томск: ТУСУР, 2013. – 51 с.

Данное учебно-методическое пособие предназначено для студентов 1 курса ТУСУРа направлений бакалавриата ФЭТ, ФСУ, ФВС, РТФ, РКФ очной формы обучения. Пособие составлено в соответствии с целями и задачами дисциплины «Английский язык». Учебное пособие предназначено для обучения в первом семестре (36 часов аудиторных занятий и 36 часов самостоятельной работы) для студентов с уровнем английского языка Elementary.

Каждый урок состоит из следующих разделов:

- Vocabulary (Wordbank)
- Reading
- Grammar
- Check yourself
- Technical reading

После каждых двух уроков предлагается раздел «Revision» для повторения пройденного материала и подготовки к тестам.

Учебное пособие «English for students of engineering faculties (basic level)» размещено в электронном виде на образовательном портале ТУСУРа

Оглавление

Lesson 1. Personal life. Part 1. Nice to meet you!	4
Grammar: Word Order; Possessive pronouns; The Verb “to be”	5
Lesson 1. Personal life. Part 2. About myself	7
Grammar: Word Order; The Present Simple tense; The Definite and Indefinite Articles	7
Lesson 2. Education. Part 1. My day at university	10
Grammar: The Present Simple tense:	11
Lesson 2. Education. Part 2. TUSUR	13
Grammar: There is/ there are	14
Revision Lessons 1-2	18
Lesson 3. The Russian Federation Part 1. Russia	20
Grammar: The Present Continuous tense	21
Lesson 3. The Russian Federation. Part 2. Tomsk	24
Grammar: Present Simple vs. Present Continuous	26
Lesson 4. Communication Part 1. Means of communication	28
Grammar: The Past Simple Adverbs; The Past Simple tense:	29
Lesson 4. Communication Part 2. Functions of a modern cell phone	32
Grammar: Past Simple tense Negatives and Questions; Degrees of Comparison	34
Revision. Lessons 3-4	37
Lesson 5. The Age of Electronics Part 1. The evolution of Electronics	39
Grammar: Present Simple Passive, Past Simple Passive	41
Lesson 5. The Age of Electronics Part 2. Transistors	44
Grammar: Present and Past Simple Passive questions and negatives	46
Revision Lessons 1 – 5	47
Check yourself: Answers	49
Vocabulary	50

Lesson 1. Personal life. Part 1. Nice to meet you!

Starter

- What is your name? - How old are you? - What's your hobby?

Word bank

1. a student – студент	9. Where are you from? – Откуда ты?
2. a university – университет	10. a cousin – двоюродный брат/сестра
3. a faculty – факультет	11. Information security – информационная безопасность
4. a specialty – специальность	12. Computer systems – вычислительные системы
5. a first-year student (a freshman) – студент первокурсник	13. to play the guitar – играть на гитаре
6. a second-year student – студент второго курса	14. occupation – род занятий
7. Nice to meet you! – Приятно познакомиться!	15. a group mate – одногруппник
8. hardworking – трудолюбивый	



Task 1. Read the dialogue. Practice the dialogue with your partner:

Ruslan: Hello, I'm Ruslan. What is your name?
Alex: Nice to meet you, Ruslan! My name is Alex.
Ruslan: Nice to meet you! Where are you from, Alex?
Alex: I'm from Russia, from Tomsk. And you?
Ruslan: I'm from Kazakhstan, from Astana.
Alex: How old are you?
Ruslan: I am 18 years old, and you?
Alex: I am 17.
Ruslan: Is your family big?
Alex: Yes, it is. I have two brothers and three cousins.
Ruslan: Are you a student?
Alex: Yes, I am a first-year student of Tomsk State University of Control Systems and Radioelectronics.
Ruslan: What is your faculty?
Alex: My faculty is Computer Systems.
Ruslan: What is your specialty?
Alex: My specialty is Information security.
Ruslan: What's your hobby, Alex?
Alex: I like music! I play the guitar.

Task 2. Fill in the gaps. Use words from the dialogue and word bank:

Sarah: Hello, my name is Sarah. What is ... name?
Alex: My ... is Alex.
Sarah: Nice to ... you! Where ... you ... Alex?
Alex: I'm ... Russia, from Moscow. And you?
Sarah: I ... from St. Petersburg.
Alex: Is your ... big?

Sarah: Yes, it ... I have two brothers and three cousins. Are you a ...

Alex: Yes, I am a first-year student of Tomsk State University of Control Systems and Radioelectronics.

Sarah: ... your hobby, Alex?

Alex: I like music! I ... the guitar.

Task 3. In pairs, replay the dialogue:

1. What's your name? - My name is...
2. Where are you from? - I'm from....
3. Is your family big? - Yes, it is .../ No, it is not...
4. Are you a student? - Yes, I ...
5. What's your faculty? - My faculty is ...
6. What's your hobby? ...

Task 4. Use the information from the table, complete the following questions and answer them:

1. What ... his surname?
2. ... is his first name?
3. ... is he from?
4. What is ... occupation?
5. ... old is he?
6. What is his ...?

first name	Andrew
surname	Petrov
age	18 years old
native town	Kemerovo
occupation	Student
specialty	Computer systems
hobby	Sports

Grammar: Word Order; Possessive pronouns; The Verb “to be”

1. Word order

+	I	am	a student	of the university
?	Are	you	a student?	
-	We	are not	schoolchildren.	

2. Possessive pronouns

I - я	my – мой, моя, моё, мои
you - ты, вы	your – твой, твоя, ваш, ваша
he - он	his - его
she - она	her - её
it - оно, (он, она) это	its - его, её
we – мы	our – наш, наша, наше, наши
they – они	their - их

3. «to be» - БЫТЬ

I	am	a student
he, she, it	is	my friend
we, you, they	are	friends

Am	I	a student?
Is	he, she, it	my friend?
Are	we, they	friends?

I	am	not	a student.
he, she, it	is		my friend.
we, you, they	are		friends.

Task 5. Fill in the sentences with the correct form of the verb «to be»:

- My best friend ... a second-year student.
- We ... students of TUSUR.
- I ... a sportsman.
- Our university ... not very old.
- Lisa ... our group mate.
- I ... a first-year student.
- They ... at the English lesson now.
- My native town ... not very big.
- Students of our group ... very hardworking.
- Our specialty ... Radioelectronics.

Task 6. Fill in the sentences with the proper possessive pronoun:

- Sara has only one sister. ... family is not very big.
- We study at TUSUR. ... university is very famous.
- ... father is a hardworking man. I always help him.
- I like ... native town.

Check yourself

Task 8. Fill in the sentences with the correct form of the verb “to be”:

- He ... (not) my friend.
- How old ... your friend?
- I ... (not) from Germany.
- She ... my sister.
- The notebook ... black.
- ... Physics your favourite subject?
- ... they at lessons?
- My group mates ... friendly.
- ... this book interesting?
- I ... 17 years old.

- Sam, what is ... specialty?
- ... group is very funny. We like music and sports.
- Peter is my best friend and I like ... character very much.
- My cat likes playing with ... toys.
- All my friends study at the Faculty of Electronics; ... group is very clever.
- Sarah and Fred live in one town; ... town is small but beautiful.

Task 7. Fill in the gaps and retell the text:

My name ... Alex, I am ... Tomsk. I am 18 ... old. I ... a big family: I have two ... and three cousins. I am ... a first year student of the Tomsk State University of ... Systems and Radioelectronics. I ... at the faculty of Computer My ... is Information security. I ... playing the guitar.

Task 9. Complete the sentences with “my”, “your”, “her”, “his”, “our” or “their”:

- Have you got ... textbook?
- He likes visiting ... grandmother.
- I am in ... room.
- She likes ... group mates.
- They are famous for ... work.
- We have ... Maths lessons every week.
- He asks you about ... keys. Can you find them?
- We go to ... parents every weekend.
- She drives ... car very carefully.

Reference on grammar:

- The verb “to be” – <http://www.native-english.ru/grammar/verb-to-be>
- Possessive pronouns – <http://www.native-english.ru/grammar/possessive-pronouns>

Technical reading

Task 10. Match the terms and definitions:

- A. Physics
- B. Electronics
- C. Mathematics

1. the branch of science that deals with the study of flow and control of electrons (electricity) and the study of their behaviour and effects in vacuums, gases, and semiconductors, and with devices using such electrons. This control of electrons is accomplished by devices that resist, carry, select, steer, switch, store, manipulate, and exploit the electron.
2. the science of numbers and their operations, interrelations, combinations, generalizations, and abstractions and of space configurations and their structure, measurement, transformations, and generalizations.
3. the science of matter and energy and of interactions between the two, grouped in traditional fields such as acoustics, optics, mechanics, thermodynamics, and electromagnetism, as well as in modern extensions including atomic and nuclear physics, cryogenics, solid-state physics, particle physics, and plasma physics.

Task 11. Find the equivalents to the Russian words:

контроль	комбинация	оптика
электрон	конфигурация	механика
энергия	структура	термодинамика
эффект	трансформация	электричество
вакуум	генерализация	атомный
газ	электромагнетизм	ядерный
материя	переключать	криогеника
число	традиционный	плазма
операция	акустика	

Task 12. Translate the following words and try to guess the meaning of suffixes:

Suffix	Words
-or	semiconductor, operator, director, inspector, resistor, generator,
-er	switcher, leader, reader, player
-tion	operation, interrelation, combination, generalization, abstraction, configuration, transformation
-ance/ -ence	importance, difference
-ity	university, radioactivity, activity, conductivity
-ment	development, experiment, instrument
-ist	scientist, physicist, economist
-ness	darkness, happiness, whiteness
-age	disadvantage, message, language
-ogy	technology, biology, ecology
-ics	physics, electronics, mathematics
-sure/ -ture	pressure, measure, mixture

Task 13. Find nouns and translate them into Russian:

React, reaction, reactor, reactivity; science, scientific, scientist; industry, industrial, industrious; cold, coldly, coldness; dark, darkness; happy, happily, happiness, unhappy; equal, equally, unequal, equality; free, freedom, freely; attention, attentive, attentively; sun, sunny, sunless; care, careful, careless, carefully, carelessness; to differ, different, difference, extreme, extremely, extremity, extremist, friend, friendship, friendly.

Task 14. Try to find more examples of words with the suffixes given in task 10:

Reference on noun suffixes:

1. <http://engblog.ru/affixation>
2. <http://euroeducation.com.ua/article/36-english/116-suffixes-derivation-noun-suffixes-word-formation-nouns.html>

Lesson 1. Personal life. Part 2. About myself

Starter

- Have you got a big family? - Have you got many friends? - Who is your best friend?

Word bank

1. six days a week – 6 дней в неделю	10. to take part in – принимать участие в...
2. to attend lectures – посещать лекции	11. Where – где, куда
3. to carry out experiments – проводить эксперименты	12. When – когда
4. free time – свободное время	13. What – что, какой
5. to go to the gym – ходить в тренажерный зал	14. Why – зачем, почему
6. to spend time – проводить время	15. How – как
7. together – вместе	16. How often – как часто
8. a hostel – общежитие	17. How many – сколько
9. competitions – соревнования	

Task 1. Read the information about Alex and his friend Ruslan:



Hello! My name is Alex Fedorov. I'm a first-year student of TUSUR.

I live in Tomsk. Six days a week I go to university. I attend lectures and carry out experiments. I have got many friends. In my free time I meet my friends or go to the gym. I play in a band. On Saturdays we play the guitar together. I've got a dog. Every evening I take the dog out for a walk. I have a big family we spend much time together.

I've got a friend. His name is Ruslan.



Ruslan Aldanov studies at Radio Engineering faculty. He lives in a hostel. He is very friendly and he has got many friends. He speaks three languages: Russian, Kazakh and a little English.

He has got a girlfriend. They often go out together. Ruslan plays volleyball and every year he takes part in competitions.

Task 2. Complete the sentences about Alex and Ruslan:

- Alex ... a first-year student ... TUSUR.
- Ruslan ... at Radio Engineering faculty. He lives in a ...
- In his ... Alex meets his friends and ... to the gym.
- At university Alex ... lectures and ... experiments.
- Ruslan ... three languages.
- Ruslan ... volleyball and ... part in ...
- Alex ... a big family. They ... much time ...

Task 3. Answer the questions about Alex and Ruslan:

- Is Alex a student?
- Where does Ruslan live?
- What faculty does Ruslan study at?
- Where does Alex live?
- What does Alex do in his free time?
- What languages does Ruslan speak?
- Are they friends?

Grammar: Word Order; The Present Simple tense; The Definite and Indefinite Articles

1. Word order

0	1	2	3	4
	Ruslan	lives	in a hostel.	
Six days a week	Alex	goes	to university.	
Every evening	I	walk	with my dog	in the park.

2. The Present Simple tense

I live in a hostel. We play basketball on Sundays.
John lives in Omsk. He studies at the university.

Task 4. Put the words in the correct order:

- study / university / I / at
- attend / students / every / lectures / day
- time / spend / with / I / much / family / my
- part / John / in / takes / year / every / competitions
- speaks / Sarah / languages / three

Task 5. Open the brackets and put the verbs into the correct form:

1. People ... much time at the computer. (to spend)
2. My friend ... to the gym two days a week. (to go)
3. I ... lectures every day. (to attend)
4. We often ... with friends. (to go out)
5. George ... in a foreign country. (to live)
6. Students of our faculty ... in many sport competitions. (to take part)
7. I ... at TUSUR. (to study)
8. My friend ... at TUSUR too. (to study)
9. In my free time I ... my friends. (to meet)

Task 6. Put the verbs into the correct form in the text and retell it:

have	is x 2	has	talk	watch	listen	studies
likes	lives	spend				

I (1) ... a lot of friends but my best friend is Andrey. He (2) ... seventeen. Andrey (3) ... very smart and he (4) ... at university at the faculty of Economics. He (5) ... with his parents not far from the university. Andrey (6) ... a lot of hobbies: he (7) ... to play the computer, to read crime stories and to go to the gym. We (8) ... much time together: we (9) ... video, (10) ... to music or (11) ... about different things.

3. The definite and indefinite articles (a/an, the)

a/an		the	
1. a/an	a cat an apple a university	1. the = only one	The sky is blue. The sun shines.
2. a = one	I have an apple. (= one apple)	2. second naming	I have a cat. The cat is black. (My cat)
3. a = any	A cat has four paws. (any cat) But: Cats have four paws. (no article)	3. Both speakers know the subject:	Open the door, please. (In this room)
4. to say what thing or person is	I am a student. My mother is a doctor. A cat is an animal.	Remember:	go to university, go to school, go for a walk, in the morning, play the guitar, in the country,
No article			
1. We cannot count the thing:	oil, water, sugar, snow etc. Snow is white.	2. Before names:	I live in Tomsk. My name is Alex.

Task 7. Write "a" or "an":

1. I have ... book.
2. Simon draws ... flower.
3. I see ... old house.
4. There is ... chair and ... bed in the room.
5. I am waiting for ... taxi.
6. He sleeps in ... bed, not on ... sofa.
7. I can see ... woman with ... umbrella in the street.
8. ... cat likes milk.
9. Give me ... pen, please.

1. I am ... doctor.
2. My mother is ... engineer.
3. My dog plays with ... ball.
4. ... sun rises in the morning.
5. Close ... door, please. It's cold.
6. I never drink ... coffee with ... sugar.
7. Answer ... phone, please.
8. I go to ... university every day.
9. ... tiger has stripes.

Task 8. Write "a", "an" or "the":

1. I have ... dog; ... dog is grey.
2. I have ... book and ... pen in my bag. ... book is blue and ... pen is yellow.
3. My brother has ... car. ... car goes fast.
4. There is ... kitchen, ... bedroom and ... bathroom in my flat. ... kitchen is big and ... bathroom is small.
5. I have two brothers: Paul is ... physicist and Jeff is ... taxi driver.

Task 10. Fill in the sentences with the correct article:

Jack is from (1) ... London. He's got (2) ... two brothers and (3) ... sister. They live with their parents in (4) ... big house in (5) ... countryside. Jack has lots of hobbies. He likes (6) ... volleyball and he plays (7) ... guitar. He has (8) ... white motorbike. Every day he takes his dog for (9) ... walk in (10) ... park. His dog's name is (11) ... Jessie.

Task 9. Write a/an, the or nothing:

Check yourself

Task 11. Fill in "a/an", "the" or "no article" into the following sentences:

1. This is my bag. I have ... two pencils, ... pen, and ... paper.
2. Mike is ... engineer. He works in ... office. ... office is big and modern.

3. Usually I have ... sandwich and ... cup of coffee.
4. ... zebra has black and white stripes.
5. I love music! I can play ... piano.
6. ... Sam lives in ... England.
7. I don't like ... milk in ... tea.

Reference on grammar:

1. Articles <http://www.delightenglish.ru/DG/ARTICLE.htm>
2. Articles <http://www.grandars.ru/shkola/angliyskiy-yazyk/artikl.html>

Technical reading

Task 12. Read and translate the text:

Electrical engineers design, develop, test, and supervise the manufacturing of electrical equipment such as electric motors, radar and navigation systems, communications systems, and power generation equipment. Electronics engineers design and develop electronic equipment, such as broadcast and communications systems-from portable music players to global positioning systems (GPS).

Electrical and electronics engineers work primarily in industries that conduct research and development, for engineering services firms, in manufacturing, and in the federal government. They generally work indoors in offices. However, they may have to visit sites to observe a problem or a piece of complex equipment.

Task 13. Find the equivalents to the Russian words:

инженер	энергия	проводить
разрабатывать	вещание	фирма
тестировать	портативный	федеральный
заведовать	плеер	наблюдать
производство	позиционирование	сложный
оборудование	глобальный	посещать
навигация	промышленность	офис
электрический	музыка	связь
мотор	исследование	
радар	обслуживание	

Task 14. Fill in the table and translate the words:

Verb	Noun
1.	2. development
3. supervise	4.
5.	6. manufacture
7.	8. electricity
9.	10. navigation
11. communicate	12.
13. power	14.
15.	16. generation
17.	18. player

Task 15. Translate the following words and try to guess the meaning of suffixes:

-ate	to activate, to demonstrate, to manipulate
-ize/ise	to realize, to privatize, to mobilize, to organize
-en	to broaden, to lengthen, to widen
-fy	to intensify, to clarify, to modify

Task 16. Build the verbs with the suffixes from the box above and translate them:

- ise: stable, character, symbol, visual, special
- en: red, tight, strong, deep, short, dark, white, weak, black, bright, sweet, sharp, soft, long.
- ate: different, liquid, fabric
- fy: class, simple, justice

Reference on verb suffixes:

<http://englishgu.ru/obrazovanie-glagolov-v-angliyskom-yazyike/>

Lesson 2. Education. Part 1. My day at university

Starter:

- Where do you study? - Do you like your university? - What do you do at lessons?

Word bank

1. to conduct experiments – проводить эксперименты	12. to go on foot – ходить пешком
2. to make calculations – делать вычисления	13. to go by bus – ездить на автобусе
3. to pass exams – сдавать экзамены	14. far enough – достаточно далеко
4. entrance exams – вступительные экзамены	15. twice a week – дважды в неделю
5. to study hard – усердно учиться	16. to go in for rowing – заниматься греблей
6. applicants – абитуриенты	17. to attend lessons – посещать занятия
7. a timetable – расписание	18. to get monthly grant – получать стипендию
8. on Mondays – по понедельникам	19. supportive – полезный, помогающий
9. to get to the university – добираться до университета	20. favourite subject – любимый предмет
10. to live in a hostel – жить в общежитии	21. to be good at smth. – хорошо разбираться в чем-либо
11. to take part in competitions – принимать участие в соревнованиях	

Task 1. Read the dialogue; pay attention to phrases in bold:

Alex: This is my **timetable**. I have a lot of classes. And you? Do you have your timetable?

Ruslan: Yes. I have three lessons every day.

Alex: What do you do **on Mondays**?

Ruslan: I go to the university at 8.50. First I have Maths then I go to my History class and then I run to the cafeteria and have lunch.

Alex: How do you **get to the university**?

Ruslan: I **live in a hostel** so I go to the university **on foot**.

Alex: Lucky you! I live **far enough** so I go to the university **by bus**.

Ruslan: What do you do after lessons?

Alex: **Twice a week** I **go in for rowing** at our university club. And I **attend** my music **lessons** on Fridays. And you?

Ruslan: I play volleyball for our university team and I am in a group of the English Speaking Club.

Alex: Do you **get monthly grant**?

Ruslan: Yes, I do. It's very **supportive** for me. What's your **favourite subject**?

Alex: I like Maths and I'm **good at** Physics. I always **take part in competitions** in these spheres.

Task 2. What do the boys do during a week? Fill in the table according to the dialogue:

Alex	Ruslan
<i>Example:</i> Alex attends music lessons on Fridays.	On Mondays Ruslan ...
Twice a week ...	Every day ...

Task 3. Match phrases from two columns to make true sentences:

- at Maths	- we conduct experiments
- at Physics	- we speak, read and write in English
- at English	- students make calculations
- during the session	- we pass exams
- during the semester	- we study
- to enter the university	- applicants pass entrance exams
- to pass exams	- students study hard

Task 4. Match the words from two columns to make phrases; translate the phrases:

1. to go by	a. monthly grant
2. to attend	b. in a hostel
3. to be	c. calculations
4. to get	d. bus
5. to pass	e. entrance exams
6. to get	f. experiments
7. to conduct	g. classes
8. to live	h. good at
9. twice	i. to the university
10. to make	j. a week

Task 5. Fill in the necessary word or phrase to complete the sentences:

a. far enough	f. supportive
b. during the session	g. study hard
c. timetable	h. is good at
d. favourite subject	i. pass entrance exams
e. on foot	j. takes part

- According to my ... I have three lessons on Wednesdays.
- I live in a hostel not far from the university so every morning I go to lessons ...
- My ... is Maths. I think I'm good at it.
- My friend Nick is a sportsman. He often ... in competitions.
- This shopping centre is I usually go there by bus.
- Students who ... get monthly grant.
- Tom easily does the tasks on Physics. I think he ... it.
- Every summer all applicants ... to universities.
- ... students pass examinations.
- To do homework I usually use the Internet; it's very

Task 6. Complete the sentences and tell about your timetable:

- On Mondays I go to ...
- Twice/once a week I attend ...
- I go to university ...
- Every day I have ...
- My favourite subject is...

Grammar: The Present Simple tense:

“ + ”	I study at university.	I attend lectures.
	My friend studies at university.	Sam attends lectures.
	Students study at university.	Students attend lectures.

“ ? ”		Do	you (I, we, they)	study	at university?	-Yes, I do . -No, I don't .
		Does	your friend (he, she, it)	study	hard?	-Yes, he does . -No, he doesn't .
	Where	do	you (I, we, they)	study?		
	Who	do	you (I, we, they)	study	with?	
	What subjects	does	Sam (he, she, it)	study?		

“ - ”	I (you, we, they)	do not (don't)	play	football.
	Nick (he, she, it)	does not (doesn't)	live	in a hostel.
	We	don't	know	this story.
	Robert and Sam	don't	eat	fast food.

Task 7. Fill in the correct auxiliary verb “do” or “does”:

- ... you speak English?
- Where ... your best friend live?
- ... you go to the gym? How often ... you go there?
- Where ... your parents work?
- ... Richard play the guitar?
- ... you know that student? ... he study hard?
- How ... you usually spend weekends?
- Why ... your sister get up early?
- ... Jack take part in sport competitions?
- ... you conduct experiments at Physics?

Task 8. Put the words into the correct order and make questions:

- Italian/ you/ do/ food/ like?
- go/ does/ by bus/ to the/ John/ university?
- on holidays/ do/ do/ what/ you?
- applicants/ pass/ entrance/ do/ exams?
- Kate/ music/ how often/ does/ attend/ classes?
- with housework/ do/ help/ you/ your mother?
- you/ this cafe/ why/ like/ do?
- prefer/ you/ of music/ do/ what type?
- the semester/ study/ does/ hard/ Tom/ during?
- free time/ what/ Sarah/ do/ does/ in her?

Task 9. Complete the questions. Use these words:

to be to get up to live to be to do to get to study

- Where? - I study at university.
- What time in the morning? - At 7.30.
- How the university? - I go on foot.
- Where from? - I'm from Kazakhstan.
- in a hostel? - Yes, I do.
- What your favourite subject? - I love Physics.
- What in your free time? - I listen to the music, meet with friends, go to the gym or simply read.

Task 10. This is Alex's timetable. Ask and answer questions about Alex's studying week:

Example:

- How many lessons does Alex have on Fridays?
- On Fridays Alex has two lessons.
- What lesson does Alex have at 10.40 on Wednesdays?
- At 10.40 on Wednesdays Alex has Engineering and computer graphics.
- Does Alex have Informatics on Fridays?
- Yes, he does.

The Alex's timetable

time day	8.45	10.40	13.15	15.00
Monday	Informatics <i>lecture</i>	Physics <i>lecture</i>	Introduction to profession <i>lecture</i>	Introduction to profession <i>practice</i>
Tuesday	Mathematics <i>lecture</i>	Mathematics <i>practice</i>	English	
Wednesday		Engineering and computer graphics <i>lecture</i>	Engineering and computer graphics <i>practice</i>	
Thursday		Physics <i>practice</i>	Dancing	
Friday	Physical Education	Informatics <i>laboratory work</i>		
Saturday		History	Russian and the culture of speech	

Check yourself

Task 11. Put the verb in brackets into the Present

Simple form:

- I (not to do) my homework in the mornings.
- He (to work) at a computer shop.
- She (not to sleep) till 10 o'clock in the morning.
- We (to work) on our project.
- They (to drink) coffee every day.

- ... Mike (to like) music?
- ... Lora (to have) a car?
- You (to get) monthly grant.
- ... you (to attend) every lesson.
- It (to take) me 20 minutes to get to university.

Reference on grammar:

- Present Simple <http://www.native-english.ru/grammar/present-simple>

Technical reading

Task 12. Read and translate the text:

A **USB drive** - also known as a flash drive - is a plug-and-play portable storage device that uses flash memory and is very lightweight. A USB drive can be used in place of a floppy disk or CD. When the user plugs the device into the USB port, the computer's operating system recognizes the device as a removable drive and assigns it a drive letter.

Unlike most removable drives, a USB drive does not require rebooting after it's attached, does not require batteries or an external power supply, and is not platform dependent. Several manufacturers offer additional features such as password protection, and downloadable drivers that allow the device to be compatible with older systems that do not have USB ports. USB drives are available in capacities ranging up to about 65 gigabytes, depending on manufacturer.

Adapted from: <http://ezinearticles.com/?What-Is-A-Jump-Drive-And-How-Does-It-Work?&id=497850>

Task 13. Answer the following questions:

- Do you often use a USB drive?
- What data do you usually store on your USB drive?
- What other storage devices do you know?
- What is a USB drive?
- What happens when the user plugs the device into the USB port?
- Does the USB drive require rebooting after it's attached?
- Do the USB drives need batteries?
- What do some manufacturers offer?
- What is the highest capacity of USB drives?

Task 14. Find the equivalents to the Russian words:

USB-диск	съёмный	пароль
флеш-накопитель	назначать	защита
портативный	требовать	скачивать
накопитель	перезагрузка	драйвер
память	прикреплять	позволять
легкий	батарейка	совместимый
дискета	внешний	вместимость
вставлять	функция	гигабайт
устройство	зависимый	
порт	платформа	
распознавать	предлагать	

Task 15. Translate the following words and try to guess the meaning of suffixes:

Adjective	
-able	eat – eatable; predict – predictable; comfort – comfortable
-al	centre – central; nature – natural
-an/-ian	America – American; Russia – Russian
-ant	importance – important; significance – significant
-ary/ -ory	element – elementary; imagine – imaginary
-ible	convert – convertible; vision – visible
-ic/ -ical	economy – economical; energy – energetic
-ish	dark – darkish; England – English
-ive/-ative	create – creative; product – productive
-less	help – helpless; use – useless
-ful	helpful; useful
-like	dream – dreamlike; war – warlike
-iy	day – daily; cost – costly
-ous / -ious	danger – dangerous; poison – poisonous
-y	health – healthy; sun – sunny
Adverb	
-ly	serious – seriously; careful – carefully
-ward(s)	afterwards; backward
-wise	clockwise; otherwise

Task 16. Fill in the table and translate the words:

Verb	Noun	Adjective
1. drive	2.	3.
4. --	5. portability	6.
7. use	8.	9.
10. compute	11.	12.
13.	14. operator	15.
16. remove	17.	18.
19.	20. power	21.
22. depend	23.	24.
25.	26. addition	27.
28.	29. protection	30.
31. download	32.	33.
34.	35. person	36.

Reference on adjectives: <http://online-teacher.ru/study/suffiksy-prilagatelnyx-v-anglijskom-yazyke>

Lesson 2. Education. Part 2. TUSUR

Starter:

- What university do you study at? - What faculty do you study at? - What other faculties do you know?

Word bank

1. engineering university – технический университет	9. to leave – оставлять, покидать
2. to allow – позволять, допускать	10. to create – создавать
3. efficient – эффективный	11. research – исследование
4. a department – отделение	12. to carry out – выполнять
5. to be equipped with – быть оборудованным чем-либо	13. cooperation – сотрудничество
6. to give an opportunity – дать возможность	14. development – развитие
7. to get higher education – получить высшее образование	15. various – разнообразный
8. a device – прибор, устройство	16. field – область, сфера



The mail building of TUSUR

Task 1. Match two columns:

Finland	Vietnamese
Germany	Korean
China	Italian
Italy	Israeli
Korea	German
France	French
Israel	Finnish
Britain	Dutch
Netherland	Chinese
Canada	Canadian
Vietnam	British

Task 2. Read the text; pay attention to the words in bold:

About TUSUR

Tomsk State University of Control Systems and Radioelectronics is one of the leading **engineering universities** in Russia. It is located in the intellectual heart of Russia and Siberia — the city of Tomsk.

5 TUSUR is a young university, it was founded in 1962. Thirteen thousand students study at our 13 faculties. Relatively small size **allows** the university to be mobile and more **efficient**.

10 The university has three **departments**: a day-time, an evening (part-time) and a correspondence one. In 1998, the Centre of Distant Education was founded. It is one of the biggest and also it is **equipped with** the most modern computers and other **devices**. It **gives the opportunity to get higher education** without
15 **leaving** native towns and cities for more than 8,000 students all over Russia.

In 2004 a student business incubator was established at TUSUR. It gave rise to 15 hi-tech start-ups created by university students.

20 TUSUR takes part in large-scale international programs, such as EU-Russia Cooperation Program, INTAS, TEMPUS, DAAD, and CRDF — to name just a few.

25 TUSUR **carries out** research in partnership with foreign universities. More than 20 universities expressed their intention to pursue long-term **cooperation** with TUSUR in education, research and **development**. German, Dutch, French, Italian, British, Finnish, U.S., Canadian, Chinese, South Korean,
30 Vietnamese and Israeli research organizations collaborate with TUSUR in **various fields**.

Adapted and abridged from: www.tusur.ru/en/about/

Useful words and phrases:

1. all over Russia – по всей России
2. Centre of Distant Education – Центр Дистанционного Обучени
3. collaborate – работать совместно, сотрудничать
4. Cooperation Program – программа сотрудничества
5. correspondence department – заочное отделение
6. CRDF – (Civilian Research and Development Foundation) Американский Фонд Гражданских Исследований и Развития
7. DAAD – служба академических обменов, Германия

8. day time department – дневное отделение
9. evening (part-time) department – вечернее отделение
10. to establish – учреждать, основывать
11. expressed their intention – выразили немерение
12. to give rise – давать начало, вызывать
13. INTAS – (The International Association for the Promotion of Co-operation with Scientists from the New Independent States of the Former Soviet Union) — международная ассоциация по содействию сотрудничеству с учеными Новых

независимых государств бывшего Советского Союза.

- 14. intellectual heart – интеллектуальное сердце
- 15. large-scale – крупномасштабный, широкомасштабный
- 16. located – расположенный
- 17. long-term – долгосрочный

Task 3. Decide if the following statements are True (T) or False (F) according to the text:

1. TUSUR is one of the leading humanitarian universities in Russia.
2. TUSUR is not very old university but it's efficient.
3. Our university is one of the biggest universities in Russia.
4. The Centre of Distant Education was founded in 1998.
5. Students who study at the Centre of Distant Education don't leave native towns.
6. The student business incubator of TUSUR gave rise to 15 hi-tech start-ups.
7. TUSUR takes part in international programs.
8. TUSUR doesn't do any research in partnership with foreign universities.
9. More than 20 universities want to cooperate with TUSUR in education, research and development.
10. Research organizations of different countries collaborate with TUSUR in various fields.

Task 4. Answer the following questions to the text:

1. How many faculties are there in TUSUR?
2. Is TUSUR a humanitarian university?
3. Where is TUSUR located?
4. How many departments are there in TUSUR? What are they?
5. How many students all over Russia can get higher education at the Centre of Distant Education?
6. When was the student business incubator of TUSUR established?
7. Does TUSUR take part in international programs? Which of them can you name?
8. In which spheres does TUSUR cooperate with foreign universities?

Task 5. Fill in the gaps with the correct word or phrase:

a. various b. research c. efficient d. leave
 e. carry out f. allow g. development h. field
 i. create j. opportunity

1. This method is not very.... Let's try another method.
2. Parents ... their children to play in the park.

- 18. partnership – партнерство
- 19. to pursue – зд. продолжать
- 20. TEMPUS – программа Европейского Союза, направленная на содействие развитию систем высшего образования в странах-партнерах
- 21. was founded – был основан

3. This conference is a great ... for students to show the results of their work.
4. To write a course work students use information from ... internet sites.
5. To know the needs of buyers specialists ... analysis of the market.
6. In future I want to be a specialist in the ... of programming.
7. Their ... is important for the modern science.
8. Web designers ... the outlook for web sites, web pages and so on.
9. After they finish schools, applicants ... their homes and go to different cities to enter universities.
10. The ... of new technologies gives us new opportunities.

Task 6. Match the Russian and English names of faculties?

1. What faculty do you study at?
2. What faculties can you name?
3. How many faculties are there at TUSUR?

Faculty of Radio-Engineering	РТФ
Faculty of Automated Control Systems	РКФ
Radio-Design Faculty	ФСУ
Part-time and Correspondence Department	ФВС
Economic Faculty	ЭФ
Faculty of Distant education	ФИТ
Faculty of Law	ГФ
Humanitarian Faculty	ЗиВФ
Faculty of Computer Systems	ФЭТ
Faculty of Electronic-Engineering	ЮФ
Faculty of Innovation	ФДО

Task 7. Guess which faculty I study at:

- a. I go to university twice a year!
- b. I can construct a rocket!
- c. I like to work with people!
- d. I study credits and banking!
- e. I visit lessons 3 times a week!
- f. I like everything new!
- g. I know how to build a computer!
- h. I know how to protect information!
- i. I can control a computer!

Grammar: There is/ there are

There	is	a lamp	on the table.
There	is	some money	in my pocket.
There	are	32 students	in our group.
Is	there	a lamp	on the table?
Is	there	any money	in my pocket?
Are	there	32 students	in our group?
There	is not (isn't)	a lamp	on the table.

There	isn't	any money	in my pocket.
There	are not (aren't)	students	in that group.

Task 8. Fill in the correct form of the verb “to be”:

1. There ... a big tree in the garden.
2. ... there a bank near here?
3. There ... 13 faculties at TUSUR.
4. How many departments ... there at TUSUR?
5. ... there a Centre of Distant Education at TUSUR?
6. There ... many banks in the centre of our town.
7. There ... not many students in that room.
8. There ... a hostel near here.
9. ... there a cafeteria in this building?
10. How many students ... there in that group?
11. ... there any book shops near here?
12. How many pencils ... there on the table?
13. There ... not any free places in the room.

Task 9. Translate the following sentences into English:

1. В ТУСУРе три отделения.
2. В центре города есть большой супермаркет.
3. О! Есть идея!
4. Нет больше такого места, как родной дом! (пословица)
5. В этом корпусе есть библиотека?
6. В этой работе три ошибки.
7. Есть какие-то ошибки в этой работе?
8. В моей работе нет ошибок.
9. В нашей группе 29 студентов.
10. Сколько факультетов в ТУСУРе?
11. Сколько студентов в твоей группе?

2. Plural of nouns

Rule	But:	Special cases:
General rule: word+s a cat – cats a group – groups	After –x, -ch, -s, -sh: a box – boxes a watch – watches	a man – men; a mouse – mice ; a goose – geese ; a child – children ; a woman – women; a foot – feet ; a tooth – teeth
Consonant+y – ies: a faculty – faculties a university – universities	vowel+y: a day – days a boy – boys	Only singular Uncountable nouns: water, money, sugar, oil, information, news etc. Water is cold!
-o+es a tomato – tomatoes, a hero – heroes	a photo – photos a kilo – kilos a piano – pianos	Only plural glasses, trousers, scissors, shorts, goods etc. The scissors are on the shelf.
-f(e) - ves a life – lives a leaf – leaves	roof – roofs chief – chiefs	Pronouns This (этот) – these (эти) This boy is young. These boys are tall. That (тот) – those (те) That pen is red. Those pens are red.

Task 10. Write the following nouns in plural:

A book, a library, a key, a day, a table, a bag, a boy, a friend, a potato, an echo, a photo, a child, a shelf, a wolf, a woman, a mouse, a roof, a box, a glass, a bench, a lady, a story, a toy.

Task 11. Fill in the correct form of the verb “to be”:

1. The weather ... so nice today.
2. This building ... so old!
3. These buildings ... so old!
4. There ... only three chairs in this room.
5. My group-mates ... funny people.
6. What colour ... your new jeans?
7. My teeth ... white.
8. What ... the news?

Task 12. Rewrite these sentences in plural:

1. This man is an engineer.
2. This is a baby.
3. Is this a sofa?
4. That is a flower.
5. This bag is new.
6. That book is interesting.
7. This mouse is white.
8. My cousin is a doctor.
9. This key is made of steel.
10. This purse is made of leather.

3. Modal verbs

Can – могу, умею (= to be able to – способен, могу, умею)	I can read. He is able to create web sites.	Я умею читать. Он может писать сайты.
Must – должен, обязан (= have to – должен, приходится)	I must go to work. I have to write a letter.	Я должен идти на работу. Мне нужно написать письмо.
Must not (mustn't) - нельзя	You must not run here.	Здесь нельзя бегать.
Should – следует	You should go to bed early.	Тебе следует раньше лечь спать.
May – можно, позволено (= might – можно, возможно)	You may come in. He might be at home.	Тебе можно войти. Он, возможно, дома.

“+”	He can create web sites. We must go there.
“?”	Can he create web sites? Must we go there?
“-”	He cannot (can't) create web sites. We must not (mustn't) go there.

Task 13. Translate the following sentences into Russian:

1. His sister **can** cook very well.
2. They **should** work more seriously.
3. **Must** I learn it by heart?
4. I **am able to** carry out experiments.
5. We **have to** finish this work today.
6. Students **shouldn't** be late for classes.
7. The children **cannot** carry this box: it's too heavy.
8. You **mustn't** touch this liquid! It's dangerous!
9. **Are you able to** make difficult calculations?
10. You **may not** go for a walk until you finish your homework.

Task 14. Fill in the proper modal verb (more than one answer is possible):

1. You never know what ... happen in the future. —
Никогда не знаешь, что может произойти в будущем.
2. He ... speak English but he can't write it very well.
— Он хорошо говорит по-английски, но не очень хорошо пишет.
3. You ... go and see this film. — Ты должен пойти и посмотреть этот фильм.
4. ... I see the chief now? - Yes, you.... — Можно сейчас увидеть шефа? - Да.
5. I ... tell you something — Я должен вам кое-что рассказать.
6. ... I express my opinion? — Позвольте мне выразить своё мнение.
7. If you want feel better - you ... get up earlier.
8. They ... arrive tomorrow or the day after. — Может быть, они придут завтра или послезавтра.
9. Anybody ... make mistakes. — Любой может ошибиться.

Check yourself

Task 17. Put “there is”, “there are”, “are there” or “is there” into the following sentences:

1. ... a café in Green Street.
2. ... three shops near here.
3. How many tigers ... in the zoo?
4. ... two books in my bag.
5. ... a TV set in your house?
6. ... any group mates at the party?
7. ... a supermarket near my house.
8. How many people ... in your group?

Task 18. Put “can”, “may” or “must” into the following sentences:

Reference on grammar:

1. There is/there are: <http://www.enhome.ru/grammar/lesson17.html>
2. Plural of nouns: <http://www.correctenglish.ru/theory/grammar/plural-nouns/>;
<http://www.native-english.ru/grammar/english-nouns-plural>
3. Modal verbs: <http://real-english.ru/crash/lesson6.htm>;
<http://azenglish.ru/modalnyie-glagolyi-v-angliyskom-yazyike/>

Task 15. Put the following sentences into interrogative and negative forms:

1. Kate **can** speak English well.
2. You **may** come in.
3. Your group-mates **should** visit that lecture it's very interesting.
4. Students of our faculty **are able to** write computer programs.
5. You **must** work hard if you want to get monthly grant.
6. Students **should** be attentive at lessons.
7. I **can** help you with your homework.
8. You **may** finish your research next semester.
9. She **is able to** do this task without any help.
10. You **must** stop smoking.
11. You **may** come in.

Task 16. Fill in the table:

Can you give more examples?

Rights and duties of students:

- | | |
|------------------------|------------------------------|
| a. go in for sports | b. study well |
| c. get monthly grant | d. have lunch |
| e. attend classes | f. live in a hostel |
| g. do homework | h. get up early |
| i. prepare to seminars | j. take part in competitions |

A student can:	A student must:	A student should:
take books at the library		

1. What ... you see on this picture?
2. ... you speak Spanish? — No, I ...
3. At what time... you come to university?
4. I borrow your pen?
5. You ... not smoke here.
6. ... I take your book? — I am afraid not: I need it.
7. He... not speak German yet.

Task 19. Rewrite the following nouns in plural:

Foot; church; sky; mouse; problem; country; business; line; coin; factory.

Technical reading

Task 20. Read the text and write down one or two key words for the each paragraph:

In mathematics, the Pythagorean theorem — or Pythagoras' theorem — is a relation in Euclidean geometry among the three sides of a right triangle (right-angled triangle). In terms of areas, it states:

In any right-angled triangle, the area of the square whose side is the hypotenuse (the side opposite the right angle) is equal to the sum of the areas of the squares whose sides are the two legs (the two sides that meet at a right angle).

The theorem can be written as an equation relating the lengths of the sides a , b and c , often called the Pythagorean equation:

$$a^2 + b^2 = c^2,$$

(squared a plus squared b equals squared c), where c represents the length of the hypotenuse, and a and b represent the lengths of the other two sides.

The Pythagorean theorem is named after the Greek mathematician Pythagoras (ca. 570 BC—ca. 495 BC), who by tradition is credited with its discovery and proof.

Task 21. Decide if the following statements are True (T) or False (F) according to the text:

1. The Pythagorean theorem was discovered by Euclid.
2. The theorem is true for any right-angled triangle.
3. Hypotenuse is the side opposite the right angle.
4. Legs are the sides that meet at a sharp angle.
5. The theorem can be written as an equation.
6. In the theorem a represents the hypotenuse.
7. Pythagoras proofed this theorem.

Task 22. Find the equivalents to the Russian words:

отношение	равен	сторона
между	катет	приписывать
прямоугольный	уравнение	традиция
площадь	длина	открытие
утверждать	в квадрате	доказательство
квадрат	представлять	теорема
противоположный	называться	
сумма	математик	

Task 23. Translate the following words and pay attention to the meaning of prefixes:

un- , dis- , mis- , in- , il- , im- , ir- : отрицательное значение	unclear, disrespect, misunderstand, inattentive, illegal, impolite, irregular
re- : повтор действия	reproduce, rewrite
pre- и post- : до и после	precaution, prehistoric, post-war, post-industrial
co- : совместно	coauthor, co-existence, cooperation
inter- : между	interaction, international
bi- , mono- , multi- , poly- : два, двойной один, много, поли	bicycle, bilingual, monopoly, monologue, polyglot, polytechnic
over- , extra- , super- , ultra- : сверх, над, супер	overpopulation, extraordinary, supermarket, supersonic, ultraviolet, ultrasound
under- , sub- : под	underline, underpay, subconscious, subcontinent
semi- : полу-	semiconductor, semifinal

Task 24. Fill in the table and translate the words:

Verb	Noun	Adjective	Adverb
act			
	adaptation		
		analytical	
			automatically
	center		
		classified	
			collectively
	construction		
		descriptive	
			directly
equip			
	execution		-
identify			
improve			-
		innovative	
			intensively

Reference on prefixes

<http://skylans.com/education/grammar/en/prefix-in-english>:

Revision Lessons 1-2

Task 1. Fill in the gaps with the correct word or phrase:

a. first-year student b. Nice to meet you!
 c. occupation d. carry out e. spend time
 f. make calculations g. timetable h. attend lessons
 i. equipped with j. research

1. - My name is Andrew! - Hi! ... !
2. - What's your ...? - I am a doctor.
3. I have a lot of friends and we often ... together.
4. I started studying at university, so I am a....
5. Look! I have a new...! I have three lessons on Monday and on Tuesday.
6. At Math we....
7. At physics we ... experiments.
8. Our laboratory is ... modern computers.
9. Scientists carry out ... on semiconductors.
10. Students must ... every day.

Task 2. Make sentences from the given words, put the verb in the correct form:

Example: We, at Physics, to carry out experiments. - We carry out experiments at Physics.

1. group mate, my, to be, hardworking, very.
2. I, to the university, on foot, get.
3. my friend and I, together, guitar, to play.
4. my, subject, favourite, to be, Informatics.
5. of engineering university, students, to be good at, Mathematics.
6. researchers, a new device, create.
7. the university, to give an opportunity, higher education, to get.
8. to cooperate, our countries, in this field.
9. to study, hard, to pass, exams, entrance, applicants.
10. twice, to go in for rowing, a week, my friend.

Task 3. Put the correct question word into the sentences and answer the questions:

where, when, what, why, how, how many, how often

1. ... are you from?
2. ... do you have English lessons?
3. ... do you leave home in the morning?
4. ... students are there in your group?
5. ... do you spend your free time?
6. ... is your favourite subject?
7. ... do you like it?
8. ... university do you study at?
9. ... do you go after lessons?
- ... do you do at Mathematics?

Task 4. Translate the sentences into Russian:

1. Дважды в неделю я с друзьями хожу в тренажерный зал.
2. Каждый год наша команда принимает участие в соревнованиях по гребле.
3. Каждый студент может получать стипендию.
4. Наш университет поддерживает сотрудничество и развитие в различных областях.

5. Хорошее оборудование делает наше обучение эффективным.
6. Майк выходит из дома в 8.00 каждый день.
7. Я живу в общежитии, а мой одногруппник живет в центре города.
8. Мы посещаем лекции каждый день.
9. Они учатся на дневном отделении.
10. Я учусь на факультете Вычислительных систем, моя специальность - защита информации.

Task 5. Fill in the table with correct pronouns:

I	
	your
he	
she	
it	
	our
	their

Task 6. Complete the sentences with "my", "your", "her", "his", "its", "our" or "their":

1. Alex does ... homework every day.
2. Anna is in ... room.
3. Are you and your brother enjoying ... English classes?
4. Do you live with ... parents?
5. Have you got ... notebook?
6. He is in ... classroom.
7. I like ... new job.
8. I like visiting ... friends at the weekend.
9. The teachers have ... meetings every week.
10. Tomsk is famous for ... universities.

Task 7. Complete the sentences with the verb "to be" in the correct form:

1. ... English very difficult?
2. ... they at home?
3. He ... a good engineer.
4. How old ... you?
5. I ... (not) from Spain.
6. It ... (not) my pen.
7. She ... in my group.
8. The notebook ... here.
9. The classroom ... very big.
10. They ... (not) in my office.

Task 8. Put "there is" or "there are" into the sentences:

1. ... lots of classrooms in the main building. It is very big.
2. ... twenty-five students in my group.
3. - ... any cakes left? -No, I'm sorry, I ate them all.
4. ... a letter on your desk. It is from your uncle.
5. Look! ... beautiful clouds in the sky.
6. ... two parks in this town. They are quite big.
7. ... a bird in the picture.
8. ... some people in the park.
9. ... (not) any cars in the street.

Task 9. Look at Mike's timetable.

a. Complete the sentence with the positive form of the verb in brackets:

Time	8.50 – 10.25	10.40-12.15	13.15 – 14.50
Mon	Informatics	Physics	Russian
Tue	English	PE	Physics
Wen	Physics		
Thu	Informatics	English	Physics
Fri	Physics	PE	

- At 8.50 on Thursdays he ... Informatics. (study)
- He ... to university every day. (go)
- Mike ... a lecture on Physics every day of the week. (have)
- Mike ... to university five days a week. (go)
- Mike ... two languages – English and Russian. (study)
- On Mondays the lessons ... at 8.50. (start)
- On Thursdays Mike ... lessons at 14.50. (finish)
- On Tuesdays between 10.40 and 12.15 Mike's group ... sport. (do)

b. Complete the sentence with the negative form of the verb in brackets:

- He ... to university on Wednesday or Friday afternoon. (to go)
- Mike ... Chinese. (to study)
- Mike ... English lessons on Wednesdays. (to have)
- Mike ... to school at the weekend. (to go)
- Mike's ... sport on Mondays, Wednesdays or Thursdays. (to do)
- Mike's group mates ... Chemistry. (to study)
- On Fridays Mike ... studying at 10.25. (to finish)
- On Wednesdays the lessons ... at 10.40. (to start)

c. Complete the sentences with “do” or “does”, answer the questions:

- ... Mike have a lesson on Physics on Mondays?
- ... the students study IT at Mike's university?
- ... Mike go to university on Friday afternoon?
- ... they have any time for sport?
- ... you study Chinese at your university?
- ... your university have a similar timetable?
- ... you study more subjects than Mike?
- ... lessons start at 08.00 on Tuesdays?

Task 10. Fill in the proper modal verb (more than one answer is possible):

- I ... go and talk to her — Я должен пойти и поговорить с ней (Она меня сама вызвала).
- I ... go and talk to her — Я должен пойти и поговорить с ней (Я сам хочу с ней кое-что обсудить).
- He ... come now. — Он может прийти сейчас.
- You ... be right. — Ты можешь быть прав.
- What weight ... you carry? — Какой вес ты можешь поднять?
- All of you ... read this book. — Вам всем следует прочитать эту книгу.
- I ... play football well, but I'm unable to play now, I don't feel well. — Я умею хорошо играть в

футбол, но сейчас я не могу играть, так как плохо себя чувствую.

- I ... exercise more to be healthier. Тебе следует больше тренироваться, если хочешь быть здоров.
- You ... do as I tell you. — Ты должен делать так, как я тебе говорю.
- You ... help her. — Вам следовало (бы) помочь ей.
- I ... do it today. - Do it if you — Я должен сделать это сегодня. - Делай это, если ты должен.

Task 11. Fill in “a” or “an” into the following sentences:

- I am ... first year student of TUSUR.
- I have ... apple and ... cake in my bag.
- My father is ... engineer. He works in ... office.
- It's ... beautiful day today!
- We live in ... old house.
- Are you ... good driver?
- There is ... interesting show on TV tonight.
- I want to buy ... hat and ... umbrella in this shop.
- The computer is ... useful device.
- ... mouse is ... animal. It is ... small animal.

Task 12. Fill in “a/an” or “the” into the following sentences:

- I see ... woman in the street. ... woman has ... dog with her.
- Anton has ... new mobile phone. ... phone has many useful functions.
- I read ... English book. I find ... book interesting.
- My uncle is ... artist and my aunt is ... school teacher.
- Sam is ... really nice person.
- Market researchers discuss ... economic problem at ... conference this Thursday.
- There is ... university in our town. ... university is not very big but effective.
- I open ... door and see ... classroom. ... classroom is clean and big enough.
- There is ... good film on TV in ... evening.

Task 13. Fill in “a/an”, “the” or “no article” into the following sentences:

- This is my table. On ... table I have ... book, ... pen, ... two pencils and ... paper.
- Jack is ... electrician. He works with ... electricity.
- ... Greece is ... European country.
- Sarah usually buys ... cup of coffee and ... cake in ... cafeteria.
- In ... Internet you can find ... information.
- Today is such ... lovely day! ... sun is shining and ... sky is blue!
- I have ... idea! We should go to ... gym more often!
- We live in ... Tomsk. Our friends live in ... Kemerovo.
- I see ... man and ... woman. ... man is tall and ... woman is quite short.
- Jane never drinks ... coffee in ... morning.
- John has ... great idea. ... idea is to go for ... walk!

Task 4. Decide if the following statements are True (T) or False (F) according to the text:

- Russia is located in Eastern Europe.
- The unofficial name of the country is The Russian Federation.
- Russia has borders with Japan by the Bering Strait.
- Russian government is based on a democratic form of rule.
- The president is chosen in direct elections.
- Russia covers more than one-sixth of the Earth's inhabited land area.
- Russia spans nine time zones.
- Russia is the largest producer of vegetable oil and natural gas in the world.
- Russian lakes contain approximately one-quarter of the world's fresh water.
- There are 83 smaller republics in Russia.

Task 5. Put the questions to the answers:

- Russia (also the Russian Federation) is a country which is partly in Eastern Europe and partly in Asia.
- About 145 million people live in Russia.
- The capital city of Russia is Moscow.
- The official name for Russia in English is The Russian Federation.
- It also has maritime borders with Japan by the Sea of Okhotsk, and the United States by the Bering Strait.
- The current President is Vladimir Putin.
- Russia has the world's largest reserves of mineral and energy resources.

- Important issues are decided by the Federation President.
- Russian lakes contain approximately one-quarter of the world's fresh water.

Task 6. Complete the sentences:

- Russia is located
- ... live in Russia.
- Russia shares borders with
- The President is
- Russia has the worlds'
- Russia is a federal
- Russia has 83

Task 7. Translate into English:

- Россия расположена в Восточной Европе и в Азии.
- Столица России – Москва.
- Действующий президент Российской Федерации – Владимир Путин.
- Россия покрывает одну восьмую часть населенной площади.
- В России находятся самые большие запасы нефти, природного газа, леса и пресной воды.
- Правительство Российской Федерации делегирует меньшие полномочия республикам, входящим в ее состав.

Task 8. Retell the text; you can use the information from the text and from the tasks 5 to 7.

Grammar: The Present Continuous tense

Task 9. Read the dialogues; pay attention to the tenses:

Dialogue 1



- Ruslan:** Hi, Alex! What are you doing?
Alex: Hi! I'm carrying out an experiment!
Ruslan: What kind of experiment? Like the experiments we carry out at Physics?
Alex: No, I'm counting how many sausages I can eat at a time!

Dialogue 2.

- Sarah:** Hi, Alex, is Ruslan at home? What is he doing?
Alex: He is having breakfast. Are you coming to us?
Sarah: No, I'm not. I'm doing my homework now. I just need a little help with it.

+	I You He (she, it)	am are is	doing	the homework now.
?	Am Are Is	I you he (she, it)	doing	the homework now?
-	I You He (she, it)	am not are not is not	doing	the homework now.
Short answers:				
Yes, I am .			No, I am not .	
Yes, you are .			No, you aren't .	
Yes, he (she, it) is .			No, he (she, it) isn't .	

Task 10. Study the examples and write the -ing form of the words below:

to write	writing
to study	studying
but: to see	seeing
to be 'gin (гласн. +согл.)	beginning
to put	putting
to travel	travelling
to lie – (ie=>y)	lying

To stand, to smile, to run, to rain, to sleep, to stop, to write, to eat, to count, to wear, to ride, to cut, to dance, to put, to sneeze, to plan, to snow, to fix, to say, to cry, to shine, to win, to join, to sign, to fly, to pay, to study, to get, to wait, to write.

Task 11. Put the correct form of the verb “to be”:

1. ... you listening to the radio? Can I turn it off?
2. ... you reading the textbook on Physics? Can I take it?
3. My group mate ... playing the guitar.
4. Patrick ... (not) cooking, he ... talking on the phone.
5. Sam ... (not) watching TV, he ... sleeping.
6. What ... she saying? I can't hear.
7. What ... your brother doing? He ... walking with his dog.
8. What ... your friend doing?
9. Who ... making calculations with binary numbers?

Task 12. Put the verb in the Present Continuous form:

1. I (to sit) in the classroom now.
2. I (not to work) on my research now.
3. The lecturer (to speak) about the method of calculation, but Kate (not to listen) to him. She (to think) about her new mobile at the moment.
4. My cousin (not to live) in Moscow now, she (to pass) the entrance exams in St. Petersburg.
5. They (not to go) to the gym at the moment; they (to go) to the lessons.
6. She (to read) an interesting book now.
7. I (to write) a composition now.

Check yourself**Task 15. Put the verb into the Present Continuous form:**

1. I (to go) for a walk with my dog. Will you go with me?
2. Don't make noise, please! I (try) to concentrate.

Reference on grammar:

1. Present continuous: <http://www.study.ru/lessons/elementary4-3.html>
<http://www.enhome.ru/grammar/lesson23.html>

Technical reading**How to translate an attribute group**

Way to translate	Example
1. прил. + сущ.	information security - информационная безопасность semiconductor circuit - полупроводниковая схема
2. сущ. в родительном падеже	power supply - источник питания device production - производство устройства
3. сущ. с предлогом	security specialist - специалист по безопасности acoustic-wave device - прибор на акустических волнах
4. причастием или прид. предложением	compiler program - компилирующая программа/ программа, которая компилирует

Task 13. Translate the following sentences into English:

1. – Где Хелен? – Она говорит по телефону.
2. – Почему ты не записываешь лекцию? – У меня есть хороший учебник.
3. Алекс сейчас играет в футбол, он не играет в баскетбол.
4. Мы сейчас сдаем экзамен по физике.
5. Мы сидим на уроке физики, лектор пишет пример на доске.
6. Сейчас я не работаю, у меня перерыв.
7. Не звони Маше, она сейчас принимает душ.
8. Питер гуляет с собакой, она сейчас побежала за мячом.
9. Почему ты улыбаешься?
10. Тебе нужно что-нибудь? Я иду в магазин.

Task 14. Correct the mistakes:

1. I looking for my key.
2. I am play football now.
3. Pete and Tom is watching TV.
4. What are you do?
5. You isn't listening to the radio.
6. He reading a book.
7. Is talking he on the phone?
8. She not planning to enter the university.
9. I'm learn English at the moment.
10. What do you saying?

3. Look! It (rain).
4. Excuse me. I (look) for my key. Have you seen it?
5. I (not / work) today. I'm on holiday.
6. Why (you / wear) your coat today? It's very warm.

Task 16. Study the rule and choose the correct translation of the attribute groups:

1. digital radio technology
 - a. радио цифровая технология
 - b. технология цифрового радио
 - c. технологическое цифровое радио
2. analogue radio broadcast
 - a. аналоговое радиовещание
 - b. вещание аналогичного радио
 - c. аналоговое вещание по радио
3. amplitude modulation
 - a. модуляция амплитуды
 - b. модуль амплитуды
 - c. амплитуда модуляции
4. high audio fidelity
 - a. высокая точность аудио воспроизведения
 - b. точность высокого аудио
 - c. высокая точность аудио

5. original analog signal
 - a. своеобразный аналоговый сигнал
 - b. сигнал аналогового оригинала
 - c. первоначальный аналоговый сигнал
6. digital signal
 - a. цифровое сигнализирование
 - b. сигнал числа
 - c. цифровой сигнал
7. high definition radio
 - a. радио с высоким разрешением
 - b. радио высокой точности
 - c. высокая точность радио

Task 17. Read the text and answer the questions:

1. What is the high definition radio?
2. Does the traditional audio exist in the USA?
3. What radio stations use the technology of HD Radio?
4. What does this technology allow to do?
5. What does the most common format include?
6. What are the advantages of the HD Radio?

What is HD Radio?

HD (high definition) Radio is a digital radio technology that exists alongside traditional analogue radio broadcasts in the United States. The technology is used by both AM (amplitude modulation) and FM (frequency modulation) radio stations, and it allows them to broadcast their original analogue signals alongside additional digital content. The most common format includes the original analogue signal, a simulcast digital signal, and one or more additional digital stations. The digital signals offer higher audio fidelity, and the additional digital stations can be used to provide special content.

By Jeremy Laukkonen, <http://cartech.about.com>

Reference on attribute group:

1. http://poliglottus.narod.ru/book02_08.html

Lesson 3. The Russian Federation. Part 2. Tomsk

Starter

- Do you like Tomsk?
- What's your favourite place in Tomsk?
- Would you like to stay in Tomsk after university?

Word bank

1. an administrative centre – административный центр	9. city centre – центр города
2. cultural – культурный	10. a building – здание
3. educational – образовательный	11. to look – смотреть
4. located – расположенный	12. various – разнообразный
5. an institution – учреждение	13. a memorial – памятник
6. industry – промышленность, индустрия	14. perfect – идеальный
7. to get access to smth – получить доступ к чему-либо	15. to be proud of – гордиться чем-либо
8. a place of interest – достопримечательность	16. to visit – посещать

Task 1. Look at the words and place them in the correct column:

Noun	Verb	Adjective
administration	educate	local

Administrative, centre, locate, educational, education, institution, information, informational, industry, industrial, subject, archaeology, palaeontology, zoology, herbarium, botanical, wood, wooden, interest, go shopping, carve, exhibit, exhibition.

Task 2. Look up in the dictionary and find more derivatives from the words above.

Task 3. Find equivalents to the international words:

1. administrative	2. interest	3. herbarium
4. number	5. shopping	6. botanical
7. information	8. museum	9. cultural
10. technology	11. dragon	12. drama
13. industry	14. history	15. theatre
16. university	17. archaeology	18. concert
19. visit	20. palaeontology	21. centre

Task 4. Read the text quickly and match the headings (A-E) and the paragraphs (1-5):

- A. Cultural institutions
- B. Educational and industrial centre
- C. Museums
- D. Places of interest
- E. Wooden lace



Wooden architecture of Tomsk. Belinskogo str. 72
<http://www.panoramio.com/photo/46785823>

Tomsk is a city and the **administrative centre** of Tomsk Oblast, Russia. It is located on the River Tom. It is one of the oldest towns in Siberia.

1. Tomsk is a major centre for Russia's IT **industry** because it has a large number of educational **institutions**. Tomsk was one of the first cities in Russia that **got access to** the Internet in the early 1990s. It happened because of **grants** received by universities and scientific cooperation.

Tomsk

2. The best time to visit Tomsk is in summer – June, July, or August. Sunny, warm days are **perfect** for walks in Lagerny Garden. It is the war **memorial** park that is located near the River Tom. The neighbourhoods are full of **places of interest**. The **city centre** is great for shopping and eating.

3. On rainy days you can find something to do. There are a number of museums in Tomsk dedicated to **various** subjects: art, local history and wood carving. Tomsk State University has a number of small museums with exhibitions on archaeology, palaeontology, zoology, as well as a herbarium and a botanical garden.

4. Also Tomsk has many local cultural institutions such as drama theatres, a children's theatre, a puppet theatre and others. Major concert venues in the city include the Philharmonic Concert hall and the Tomsk Palace of Sport. The city also has cultural centres dedicated to German, Polish and Tatar languages and culture.

5. The people of Tomsk are proud of the wooden houses. Many of the most beautiful buildings are symbols of the city. The windows of these houses are bordered with carved wooden “lace”. There you can see birds or dragons. Some of these buildings are still inhabited.

Useful words and phrases:

1. bordered – окаймлённый
2. available – доступный
3. because of – из-за
4. dedicated – посвященный
5. educational – образовательный
6. an exhibition – выставка
7. a grant – грант
8. including – включая
9. inhabited – населенный
10. IT (information technology) – информационные технологии

11. lace – кружево
12. major – главный
13. neighbourhood – округа, окрестности
14. notably – особенно
15. to receive – получить
16. several – несколько
17. venue – место проведения (мероприятия, встречи)
18. war – война
19. wood carving – резьба по дереву

Task 5. Read the text again and decide if the following statements are True (T) or False (F) according to the text:

1. Tomsk is the oldest town of Siberia.
2. Tomsk is a major centre of IT industry in Russia.
3. The best time to visit Tomsk is in summer.
4. There are a lot of shops and cafes in the centre of Tomsk.
5. The Tomsk State University has a museum dedicated to wood carving.
6. There are a lot of theatres in Tomsk.
7. The carving on houses is called “wooden lace”.

Task 6. Answer the questions:

1. Where is Tomsk located?
2. When did the citizens of Tomsk get access to the Internet?
3. What is Lagerny Sad?
4. Where is it located?
5. What museums are there in TSU?
6. What are the major concert venues?
7. Are there any cultural centres?
8. Do people live in the houses with wooden “lace”?
9. What objects can you see in the carvings?

Task 7. Match the phrases and make true sentences about Tomsk:

Example: *There is a beautiful building in the centre of Tomsk.*

beautiful	garden	
old	park	
cultural	institution	in the centre
botanical	theatre	near the ... street
industrial	cafe	in the ... street
drama	shop	near the river Tom
various	museum	in the Lenin square
modern	church	
cheap	university	
expensive		

Task 8. Complete the sentences with right word or phrase:

a. inhabited; b. got access; c. located; d. grants e. neighbourhoods; f. war memorial; g. dedicated h. exhibitions
--

1. Tomsk is ... on the river Tom.
2. Tomsk has cultural centres ... to German, Polish and Tatar cultures.
3. Some of wooden houses in Tomsk are still
4. TSU has a number of small museums with ... on archaeology, palaeontology, zoology.
5. The ... of Tomsk are full of places of interest.
6. Lagerny Garden is a ... that is located near the river Tom.
7. In the early 1990s Tomsk was one of the cities that ... to the Internet
8. Tomsk got access to the Internet because of ... received by universities.

Task 9. Match two columns to make true sentences about Tomsk:

1. The best time ...	a. for Russia's IT industry.
2. Tomsk is located ...	b. are symbols of the city.
3. The city has a large number ...	c. are perfect for walks in Lagerny Garden.
4. Tomsk is a major centre ...	d. are full of places of interest.
5. The sunny, warm days ...	e. such as drama theatres, a children's theatre, a puppet theatre and others.
6. The people of Tomsk ...	f. on the river Tom.
7. Tomsk is a city and ...	g. are proud of the wooden houses.
8. The neighbourhoods ...	h. to visit Tomsk is in summer.
9. Many of the most beautiful buildings ...	i. of educational institutions.
10. Tomsk has many local cultural institutions ...	j. the administrative centre of Tomsk Oblast, Russia.

Grammar: Present Simple vs. Present Continuous

1.	Things happen repeatedly (always, usually, often, sometimes, seldom, never) He always goes to university on foot.	Something is happening at the time of speaking or around that time (now, at the moment) He is going to university now. I am reading an interesting book this week.
2.	Permanent situation My friend lives with his parents.	Temporary situation I am living in a hostel until I find a flat.
3.	General truth The sun rises in the morning.	The following verbs are NOT used in Present Continuous: like, love, hate, think, want, need, prefer, know, realize, mean, understand, believe, remember, contain, consist, depend etc. I know your name, but I don't remember your age.

Task 10. Put the verb into the Present Simple form:

- (you\ to walk) near the Pushkin memorial?
- Every day I (to eat) at the café near my office.
- I (not to like) visiting museums, they are boring.
- I (to live) in the Lenin street and my friend (to live) in the next building.
- I always (to write) with a pen.
- My grandmother often (to go) to church.
- On IT lesson we (to get access) to the modern software.
- Our company (to work) in the IT industry.
- The administrative centre of our town (to look) very modern.
- This theatre (to be) located in the centre of our town.

Task 11. Put the verb into the Present Continuous form:

- (Sam/to write) an article about archaeology museum?
- I (to eat) a chocolate; do you want some?
- I (to walk) with my dog in the park at the moment.
- I can't help you because I (to go) to university right now.
- My aunt and uncle (to visit) us this week so I can't go out with you.
- Peter (to work) in the next room at the moment, you can go and ask him.
- The students of correspondence department (to pass) their exams, so they (to live) in the hostel.
- Why (you/ not to look) at the board?

Task 12. Choose the correct verb form:

- I **am not going** / I **don't go** by bus.
- The children **are going** / **go** to school on foot every day.
- We usually **read** / **are reading** the newspaper after lunch.
- I **read/ am reading** an interesting book this week. When I finish it, I'll give it to you.
- Mary and Sue **are liking** / **like** ice-cream.
- What **are you doing/ do you do** for a living? I'm a teacher but at the moment I **don't work** / **I'm not working**.
- I **like** / **am liking** my work but my wife **needs** / **is needing** help with our children.
- We usually **work** / **are working** together, but at the moment she **earns** / **is earning** a higher salary.
- I **don't understand** / **I am not understanding** what she **is saying** / **says**. There's a terrible noise.

- Where are the children? They **play/ are playing** in the park.
- The weather is nice at the moment. It **doesn't rain/ is not raining**.

Task 13. Complete the sentences using the Present Continuous or Present Simple form of the verbs in brackets:

- Where is Nick? - He ... football. (to play)
- Nick ... tennis nearly every Saturday afternoon. (to play)
- I ... to the cinema every weekend. (to go)
- I ... home now. Goodbye! (to go)
- Look! That woman ... your jacket. (to take)
- Ted ... sugar in tea. (to not put)
- The bank ... at ten o'clock every morning. (to open)
- Look! The door (to open)
- My father ... the car. (to wash) He always it on Saturday morning. (to wash)
- "What ... Sam?" (to do) "I ... he ... his homework in his bedroom" (to think / to do)

Task 14. Correct the mistakes:

- Tom works at the moment. Don't call him!
- I am often playing football on Sundays.
- We're working on a new program this week. We usually take three weeks to do a project.
- We seldom go out for dinner, but today we go to a café.
- He is believing every word she says.
- Sara gets up at 8 o'clock and is having breakfast.
- Alex is asking a lot of questions every day.
- Rick doesn't know this formula. He is knowing the other formulas very well.
- We attend a lecture on management this weekend.
- She is wanting to buy a new computer.

Task 15. Translate the following sentences into English:

- Том – футболист, каждую неделю он принимает участие в соревнованиях.
- Цены на нефть сейчас быстро растут.
- В России есть большой запас леса и пресной воды.
- Майк сейчас временно живет в одной комнате с одноклассником.
- Ты понимаешь это правило?
- Сара хочет пойти домой прямо сейчас.
- Мой брат учится на инженера, сейчас он делает проект по механике.
- Жители города не любят гулять в этом парке.

Task 16. Choose the correct variant:

1. His father **doesn't watch/ is not watching** TV now. He **sleeps/ is sleeping** because he is tired.
2. Jane **doesn't cook/ is not cooking** dinner at the moment. She **speaks/ is speaking** on the phone.
3. I **don't understand/ I'm not understanding** this grammar rule.
4. I **don't drink/ am not drinking** coffee in the evening. I **drink/ am drinking** it in the morning.
5. Don't be noisy! The baby **sleeps/ is sleeping**.

6. I know John very well. I **think/ am thinking** he is a good person.
7. Babies always **sleep/ are sleeping** in the afternoon.
8. Phil **plays/ is playing** basketball very well. But today he **plays/ is playing** so bad!
9. Water **boils/is boiling** at 100 degrees Celsius.
10. Be careful! Water **boils/ is boiling!** It's very hot!
11. Kate **works/ is working** at a big company. This month she **works/ is working** really hard.

Check yourself

Task 17. Put the verb into the Present Continuous form:

1. I (not to drink) coffee now.
2. I (to write) an English exercise at the moment.
3. I (not to drink) coffee every day.
4. Alex (to do) his homework now?
5. Look! The baby (to run).

6. Lisa's baby always (to sleep) after dinner.
7. My grandfather (not to work). He is retired.
8. I usually (to get) up at eight o'clock in the morning.
9. My sister (not to play) the piano now. She usually (to play) the piano in the evening.

Reference on grammar:

Present continuous vs Present Simple: http://learn-english.ucoz.ru/index/present_simple_i_present_continuous/0-18;
<http://www.grammar.sourceword.com/unit5.php>

Technical reading

Task 18. Fill in the table:

verb	translation	noun	translation
add			
create			
operate			
protect			
depend			
mix			
supervise			
manufacture			
power			
discover			
act			
communicate			
develop			
generate			
connect			
darken			

Task 20. Match the words with their definitions:

1. memory	a. a device, usually electronic, that processes data according to a set of instructions.
2. battery	b. a secret word or phrase that must be used to gain admission to a place
3. computer	c. a type of serial port for connecting peripheral devices in a system
4. data	d. the procedure for making copies of data in case the original is lost or damaged
5. USB port	e. the part of a computer in which data or program instructions can be stored
6. password	f. a series of observations, measurements, or facts; information
7. backup	g. a container consisting of one or more cells, in which chemical energy is converted into electricity and used as a source of power

Task 19. Match the synonyms:

carry out	change
turn on	execute
broaden	make better
disconnect	manufacture
demonstrate	separate
produce	show
modify	start up
improve	switch on
activate	widen
operate	work

Task 21. Match the antonyms:

different	light
traditional	side
centre	separate
helpful	insulator
advantage	identity
add	disadvantage
conductor	similar
dark	safe
dangerous	unusual
difference	useless

Lesson 4. Communication Part 1. Means of communication

Starter:

- Do you often call your friends? - What do you speak about? - How can people communicate?

Word bank

1. to appear – появляться	13. means – средство; способ
2. a century – столетие, век	14. media – 1. средства связи, 2. СМИ
3. to call – 1. звонить; 2. звать	15. simple – простой
4. communication – коммуникация; связь	16. to realise – 1. понимать, осознавать; 2. осуществлять; выполнять
5. to communicate – общаться связываться	17. a satellite – спутник
6. to get information – получить информацию	18. to send a message – отправить сообщение
7. greatly – сильно, значительно	19. to surf the Internet – бродить по сети
8. important – важный	20. a thing – вещь, предмет
9. to influence – влиять, оказывать влияние	21. to turn off – выключать
10. to make decisions – принимать решения	22. to turn on – включать
11. a kind – вид, род	
12. main – главный, основной	

Task 1. Answer the following questions:

1. What means of communication do you know?
2. What means of communication did people use a century ago? Two centuries ago?
3. How do you communicate now?
4. What are the four main media?

Task 2. Look through the text quickly and compare your answers.

Task 3. Match the words from two columns to make phrases. Translate the phrases:

means	decisions
speak	a message
send	of information
communication	satellite
an ordinary	the TV
big amount	of communication
to make	thing
to turn on	to each other

Means of communication

A few **centuries** ago people knew only a few **kinds** of **communication**. They could speak to each other; they sent their **message** from one place to another by smoke signals; they used mail. Later, they also had some newspapers. The first expansion of **media** was when the radio and television **appeared**. The second and the biggest boom started in 1960s when the first communication **satellite** flew into orbit.

There are 4 **main** media: Newspapers, TV, Radio and the Internet. Today's people take this as an ordinary **thing** and we don't **realise** that we nearly can't live without it. Media are very **important** for us. They give us big amount of information, so big that we can't remember all those things. They help us to understand things and if you have lots of information you are able to **make** your own **decisions**. This is connected with education. Media are very good

teachers. They **influence** us **greatly**. They can help other people, for example to make charities.

Our world is very huge and sending a message from America to Asia a hundred years ago was nearly impossible or it took a lot of time. Nowadays you can send the message in a few seconds and it is very **simple**. The media make the world much smaller – particularly the TV and the Internet. When you **turn on** the TV or a computer you can see the whole world as if it is in the next village. When you **surf the Internet**, you can **get** any **information** you need. You can learn the culture and habits of other nationalities; you can see what they are doing right now.

Adapted from:

<http://celebritygossipblogs.concertcesariaevora.info/975/mass-media-means-of-communication-otzka-z-anglitiny/>

Useful words and phrases:

1. an amount – количество
2. a boom – бум, резкий подъем
3. a few – несколько, немного
4. by smoke signals – с помощью дымовых сигналов
5. charity – благотворительность
6. an expansion – распространение, экспансия
7. from one place to another – из одного места в другое
8. habits – привычки
9. huge – огромный
10. impossible – невозможный
11. lots of – много
12. nearly – почти
13. nowadays – в настоящее время, в наше время
14. ordinary – обычный, обыкновенный
15. particularly – особенно
16. a place – место
17. a village – деревня

Task 4. Decide if the following sentences are True(T) or False(F):

1. People always knew a lot of kinds of communication.
2. Before radio and television appeared people used smoke signals, sent letters, read newspapers.
3. When the radio and television appeared it was the first expansion of media.
4. There are only two main types of media.
5. Media is absolutely unimportant for people.
6. Media have no influence on people.
7. Nowadays you need hours to send a message by the Internet.
8. On TV you can see the whole world when you sit on your sofa.
9. When you surf the Internet, you can get any information you need.

Task 5. Answer the questions to the text:

1. How did people communicate a few centuries ago?
2. When was the first expansion of media?
3. What are the main means of communication?
4. Are media important for people? Why?
5. Is it fast to send a message today?
6. What kind of information can you get from the Internet?

Task 6. Translate the following sentences into English:

1. Иногда нелегко принимать решение.
2. Интернет дает большое количество информации.
3. Отправь мне сообщение по электронной почте.

4. Мы говорим друг с другом каждый день.
5. Мобильный телефон – это важное средство связи.
6. Каждый студент любит бродить по сети.
7. В настоящее время мы используем спутники связи.
8. В настоящее время компьютер это обычная (привычная) вещь для нас.
9. Каждый вечер я включаю телевизор и смотрю фильм.
10. Я послал тебе сообщение, включи свой компьютер.

Task 7. Complete the sentences with the right word or phrase:

- | | | | |
|--------------------|--------------|------------|--------------|
| a. kind | b. thing | c. simple | d. important |
| e. century | f. main | g. realise | h. appear |
| i. get information | j. influence | | |

1. Every year new models of cell phones ... in the market.
2. New technologies ... our life greatly.
3. This question in the test is not
4. In the Internet you can ... that you need.
5. In the ... building of our university there is a students' club.
6. What ... of music is your favourite?
7. Nowadays computer is a very ... means of communication.
8. Our ... can be called "the age of information".
9. Scientists plan some projects and then ... them.
10. To be a hardworking student is not an easy....

Grammar: The Past Simple Adverbs; The Past Simple tense:

1. The Past Simple Adverbs

1. yesterday – вчера	8. two days ago – два дня назад
2. last week – на прошлой неделе	9. five minutes ago – пять минут назад
3. last year – в прошлом году	10. a year ago – год назад
4. last month – в прошлом месяце	11. in 1997 in my childhood – в детстве
5. last Friday – в прошлую пятницу	12. when I was a school boy – когда я был школьником
6. last summer – прошлым летом	13. when I went home – когда я пошел домой
7. the other day – на днях	14. during the WWII – в период ВОВ

15. The Past Simple tense:

Regular verbs -ed	Irregular verbs
to like – liked	to be – was/were - been
to play – played	to go – went – gone
to use – used	to speak – spoke – spoken
to live – lived	to take – took – taken
to call – called	to spend – spent – spent
to study – studied	to give – gave – given
to plan - planned	to know – knew – known

Task 8. Write the Past Simple of the following regular verbs:

1. to clean – ...	13. to appear – ...	6. improve – ...	18. ignore – ...
2. to finish – ...	14. to realise – ...	7. increase – ...	19. analyse – ...
3. to use – ...	15. to call – ...	8. join – ...	20. ask – ...
4. to paint – ...	16. to influence – ...	9. learn – ...	21. attend – ...
5. to like – ...	17. to carry – ...	10. listen – ...	22. calculate – ...
		11. look – ...	23. carry – ...
		12. manage – ...	24. compete – ...

Task 9. Open the brackets and put regular verbs into the Past Simple form:

1. When I was five, I ... ice-cream. (to like)
2. Three months ago I ... with my parents. (to live)
Now I live in a hostel.
3. Media ... our life greatly. (to influence)
4. Last year scientists ... their innovative idea. (to realise)
5. My friend ... me yesterday. (to call)
6. In 1960s the first communication satellite ... on the orbit. (to appear)
7. Alexander G. Bell ... the telephone. (to invent)
8. We ... that device in our laboratory last week. (to test)
9. He ... foreign articles in his course work. (to use)
10. Students ... the task 5 minutes ago. (to finish)

Task 10. Use your dictionary and write the Past Simple form of the following verbs:

The Infinitive	The Past Simple	Participle II
know		known
speak		spoken
send		sent
have		had
fly		flown
be		been
give		given
take		taken
make		made
write		written

Task 11. Open the brackets and put irregular verbs into the Past Simple:

1. Yesterday Robert ... in the library. (to be)
2. When I ... a schoolboy I ... part in sport competitions. (to be; to take)
3. ... John at the lecture ten minutes ago? (to be)
4. Two days ago Jack ... a letter to his English pen-friend and ... it. (to write; to send)
5. In 2012 we together with my parents ... to Greece. (to fly)

Task 15. Put the verbs in brackets into the Past Simple form:

1. My working day (to begin) at eight o'clock.
2. I (to have) breakfast at nine o'clock.
3. I (to leave) home at half past nine.

Reference on grammar:

Past Simple: <http://www.native-english.ru/grammar/past-simple>

Irregular verbs: <http://www.english.language.ru/lessons/verbs/verbs.html>

<http://www.native-english.ru/grammar/irregular-verbs>

<http://en365.ru/irregular.htm>

6. Alex ... about this meeting and he ... his group-mates about it. (to know; to tell)
7. We ... tree lessons yesterday. (to have)
8. The teacher ... us five minutes to revise the words before the dictation. (to give)
9. ... you at the conference last Wednesday? (to be)
10. Richard ... two mistakes in his test last week. (to make)

Task 12. Put the letters in order to find the Past Simple tense of the verbs in the box:

dunof	tpu
tsol	petk
tib	rewd
webl	hrtwe
oder	werg

Task 13. Put the correct verb into sentence; use the Past Simple forms from the task above:

1. This tree is very old; it ... 50 metres high.
2. He ... the ball to her.
3. I ... my wallet while I was out shopping the other day.
4. We ... our bikes all the way to the beach.
5. He ... flowers in some water.
6. He was going to stroke the dog, but it ... him on the leg.
7. She ... on her tea before drinking it.
8. We looked everywhere for the key, but we never ... it.
9. I ... the photos for a long time before throwing them out.
10. All the children ... pictures of themselves.

Task 14. In the text "Means of communication" find all the verbs in the Past Simple:

to know	
to send	
can	
to fly	
...	

Check yourself

4. I (to take) a bus to university.
5. Classes (to begin) at ten.
6. We usually (to have) three or two classes a day last year.
7. I (to have) lunch at about one o'clock.

Technical reading: A biography

Task 16. Read the biography of Isaak Newton below and fill in the gaps with the correct verb in the Past Simple:

discovered	sat	received	went	became	asked
attracted	saw x2	was x3	worked	died	loved
made	showed	finished	fell	studied	

Isaac Newton

Isaac Newton, one of the greatest scientists of all times (1) ... born in 1642 in the little village in Lincolnshire, England. His father (2) ... as a farmer and (3)... before Newton (4) ... born. His mother was a clever woman whom he always (5)...

After Newton (6)... school, he (7) ... mathematics at Cambridge University and (8)... his degree in 1665. Then the university was closed because of the danger of plague and Newton (9) ... home for eighteen months. It (10)... the most important period in his life when he (11)... his three great discoveries — the discoveries of the differential calculus, of the nature of white light, and of the law of gravitation.

These discoveries are still important for the modern science. Newton (12)... always interested in the

problems of light. Many people (13)... colours of a rainbow but only Newton (14)..., by his experiments that white light consists of these colours.

It is interesting how he (15)... the law gravitation. Once, as he (16)... in the garden, an apple (17)... and (18)... his attention. Many people (19)... such a usual thing before.

But it was Newton who (20)... himself a question: "Why does that apple fall perpendicularly to the ground? Why doesn't it go sideward or upwards?" The answer to this question was the theory of gravitation, discovered by Newton.

Newton died at the age of 84, and was buried in Westminster Abbey, where his monument stands today.

Lesson 4. Communication Part 2. Functions of a modern cell phone

Starter:

- Do you have a cell phone? - How often do you use it? - What can your cell phone do?

Task 1. Discuss the following functions of a modern cell phone.

1. Which of them do you think are useful?
2. Which of them do you think appeared first (last)?
3. Which of these functions do you use most often?

Dictaphone; watch; calls; processing information; messages (texting); calculator; access to the Internet; radio; alarm clock; camera; GPS; media player; games

Example 1: I think calculator is a useful function because it helps to make calculations. I often use this function at lessons.

Example 2: I think dictaphone is one of the first functions. First mobile phones had this function.

Example 3 I use watch most often; I don't want to be late.

Word bank:

1. to add – добавлять, прибавлять, присоединять	10. to function – работать (функционировать)
2. to allow – позволять, разрешать	11. hold – держать, удерживать
3. to be equipped with – быть оборудованным, оснащённым чем-либо	12. to look for – искать
4. to change – менять(ся), изменять(ся)	13. a network – сеть
5. to contain – содержать, включать	14. to provide with – снабжать, обеспечивать (чем-либо)
6. a device – прибор, устройство, приспособление; механизм; аппарат, машина	15. resolution – разрешение (число точек на единицу длины или площади)
7. to dial – набирать номер	16. to set – устанавливать
8. a direction – направление	17. to support – поддерживать, помогать
9. a feature – особенность, характерная черта; деталь, признак, свойство	18. a tool – инструмент
	19. to take a picture/a photo/an image – фотографировать

Task 2. Choose the right translation:

1. Voice command functions
 - a. голосовое управление командами
 - b. команды функций голоса
 - c. функции голосового управления
2. GPS navigation services
 - a. службы навигации GPS
 - b. услуги GPS навигации
 - c. GPS навигация сервисов
3. traffic information
 - a. тарифная информация
 - b. трафиковая информация
 - c. информация о дорожном движении
4. phone's background image
 - a. фото заставка телефона
 - b. заставка фототелефона
 - c. телефон с фотозаставкой
5. overloaded networks
 - a. сетевые перегрузки
 - b. перегрузки сети
 - c. перегруженные сети
6. professional quality images
 - a. качественные изображения профессионала
 - b. изображения профессионального качества
 - c. качество профессиональных изображений
7. memory card
 - a. карта памяти
 - b. запоминающая карта
 - c. память карты

Task 3. Look through the text quickly and match the headings to the paragraphs:

- A. GPS
- B. Calling Features
- C. Internet
- D. Media Player
- E. Camera
- F. Text Messages

Task 4. Read the text again and answer the questions:

1. Are today's cell phones the same as they first appeared?
2. Is it possible to talk on the phone without holding it?
3. Can you take pictures with your phone? What can you do with pictures?
4. Is GPS useful? Why?
5. What can text messages do that phone calls can't do sometimes?
6. What can you do in the Internet using your phone?
7. What features can increase cost of your cell phone?
8. Do you know any functions that are not described in this text?

Cell Phone Functions

Cell phones very quickly **changed** from portable phones to **devices** that also **function** as alarm clocks, music players, global-positioning satellite, or GPS devices and much more. Think about **features** you value most before you decide what cell phone to buy. Although most phones **contain** many features, some features are optional. Some, like wireless Internet, may also increase the cost of your phone plan.

1. Cell phones don't just make phone calls; they also have a variety of **tools** that make talking on the phone easier, faster and more **convenient**. Most cell phones have speakerphones, which **allow** you to talk on the phone without **holding** it. Voice command functions allow you to automatically **dial** certain numbers when you speak on your phone.

2. Most cell phones also come with cameras. You can take pictures and upload them online, send them to your friends, set them as your phone's background image or **set** caller ID images. Most phone cameras have about three megapixel of **resolution**. If you want to **take** professional-quality **images** with your phone, **look for** phones that have at least seven megapixels.

3. Most phones **support** GPS navigation tools. GPS navigation services **provide directions**, traffic information and information about nearby stores or restaurants.

4. Many phones **are equipped with** media players for music and video files. **Add** a bigger memory card to your phone if you plan to use it as your primary music player.

5. Text messages are useful to communicate silently and unobtrusively. Text messages can also get through overloaded **networks** that do not **allow** phone calls.

6. Many phones are capable of accessing wireless Internet, and this enables you to check your email or access the Internet with your phone. Some phones can also exchange files using wireless Internet. Wireless Internet usually makes cell phones more expensive.

Adapted and abridged from:
http://www.ehow.com/list_5883831_cell-phone-functions.html#ixzz2cb3GSI54

Useful words and phrases:

1. **although** – хотя, но
2. **at least** – по крайней мере
3. **background** – фон
4. **to be capable of** – быть способным
5. **before** – до, прежде
6. **certain** – определенный
7. **convenient** – удобный
8. **to enable** – давать возможность, делать возможным (что-л.)
9. **to exchange** – обмениваться
10. **to get through** – пройти
11. **to increase** повышать(ся)
12. **nearby** – поблизости

13. **optional** – дополнительный
14. **overloaded** – перегруженный
15. **phone plan** – тариф сотовой связи
16. **primary** – основной, первичный
17. **quickly** – быстро
18. **to get through** – зд. пройти
19. **traffic** – движение, транспорт
20. **unobtrusively** – ненавязчиво
21. **to value** – ценить, оценивать
22. **variety** – многообразие, разнообразие
23. **voice** – голос
24. **wireless** – беспроводной

Task 5. Fill in the sentences with the words from the box:

a. devices; b. allow; c. tool; d. to take pictures; e. dial; f. feature; g. resolution; h. check; i. access; j. network

1. Rules don't ... to park your car here.
2. Speed is the most notable ... of this car.
3. I ... my e-mail every day.
4. Computer is a powerful ... for processing information.
5. To my mind, ... i-pod is the most convenient.
6. If you want to call to Russia – ... 007 – city code – destination number.
7. ... of this camera is 8 megapixels. Is it enough to take good images?
8. Internet is a global ... which contains millions of computers.
9. Kate isn't a photographer but she loves
10. Today everyone can get ... to the Internet through a mobile phone.

Task 6. Match the two parts of this table to make sentences. Consult the text. Translate the sentences.

1. Many phones are	a. exchange files using wireless Internet.
2. Most cell phones have speakerphones,	b. GPS navigation tools.
3. With your cell phone you can take pictures	c. to dial numbers automatically by speaking to your phone.
4. Some phones can	d. which allow you to talk on the phone without holding it.
5. Most phones support	e. some features are optional.
6. Although most phones contain many features,	f. equipped with media players.
7. Voice command functions allow you	g. and upload them online.

Task 7. Fill in the table with the correct parts of speech:

verb	translation	noun	translation
to function	- работать		
		call	- ЗВОНОК (КОМУ-ЛИБО)
		cost	- ЦЕНА, СТОИМОСТЬ
to phone	- ЗВОНИТЬ		
to access	- ИМЕТЬ ДОСТУП (К ЧЕМУ-Л.)		
		support	- ПОДДЕРЖКА, ПОМОЩЬ

Task 8. Fill in the right part of speech into the following sentences. Use the words from the box above.

- The ... of this cell phone is so high.
Our new TV set didn't ... much.
- Thanks for your ...! I really appreciate it!
Tutors ... first-year students at universities.
- Good bye, Tom! I will ... you later.
Our answering machine shows 5 missed
- Modern electronic devices have many useful
My new telephone ... as a calculator as well.
- Nowadays everyone can ... the Internet using a mobile phone.
At banks ... to personal information is not open.
- John ... you when you were out.
I like my new mobile

Task 9. Match two columns to make phrases.

Translate the phrases. Several variants are possible:

1. global-positioning	a. networks
2. alarm	b. Internet
3. music	c. satellite
4. wireless	d. images
5. a variety	e. files
6. text	f. your mail
7. traffic	g. clock
8. overloaded	h. messages
9. exchange	i. of tools
10. check	j. of resolution
11. three megapixel	k. player
12. professional-quality	l. information

Task 10. Find 10 words in the letterbox and translate them:

K	A	C	N	E	A	D	R	U	F
S	P	H	I	T	O	O	L	W	E
E	R	A	W	F	S	D	E	U	A
C	O	N	V	E	N	I	E	N	T
A	V	G	O	X	J	A	L	M	U
B	I	E	C	A	D	L	E	F	R
G	D	E	H	L	I	K	M	U	E
R	E	S	O	L	U	T	I	O	N
J	L	P	C	O	N	T	A	I	N
S	N	E	T	W	O	R	K	U	T

Grammar: Past Simple tense Negatives and Questions; Degrees of Comparison

?	did+subject+verb	Did you go to university last week? - No, I didn't . /Yes, I did . Where did you go last night? - I visited my friend.
	was+subject were+subject	Where was your book? – Under the table. Were you ill last week? - Yes, I was. / No, I wasn't.
-	didn't +verb	I didn't walk to the cinema yesterday; I took the bus. He didn't buy a new cell phone.
	was+not were+not	I wasn't at the lectures in the morning. You weren't at home yesterday.

Task 11. Make questions with “was” or “were” and give short answers:

Example: (you \ at home \ last night)

Were you at home last night? – No. I wasn't.

- Johnny \ absent from class \ yesterday
- Alex and Sue \ at home \ last night
- you \ nervous \ on the first day of study
- you \ at the library \ last night
- she \ in class \ yesterday
- you and your wife \ in Moscow \ last year

Task 12. Put the verbs in brackets into the Past Simple form, positive or negative:

- I (to go, not) to the cinema last night. I (to stay) home.
- Mike (to come, not) to classes yesterday.
- I (to finish, not) my homework last night. I (to go) to bed early.

- Jane (to get up, not) at seven o'clock. She (to get up) at 8 o'clock.
- It (to rain, not) long last Sunday. The rain (to stop) after a few minutes.
- The weather (to be, not) cold last week, but it (to be) cold yesterday.
- Tina and I (to go, not) shopping yesterday. We (to go) shopping last Monday.
- I (to go) to the cinema last night, but I (to enjoy, not) the film. It (to be, not) very good.
- I (to write) a message to my girlfriend yesterday, but she (to answer, not).
- Sue (to read) a magazine yesterday evening. She (to watch, not) TV.

Task 13. Complete the sentences with “was”, “were”, or “did”.

- I ... not go to work yesterday. I ... sick.
- Tom ... not in his office yesterday. He ... not go to work.
- A: ... Mr Smith in his office yesterday?
- B: – Yes, he
- A: ... you talk to him about your project?
- B: Yes, I He answered all my questions. He ... very helpful.
- A: ... you at the meeting yesterday?
- B: - What meeting?
- A: ... you forget about the meeting?
- B: Yes, I

Task 14. Make questions. Give short answers.

Example: (I walked downtown yesterday.)

Did you walk downtown yesterday? – Yes, I did.

- It didn't rain last week.
- I ate lunch at the cafeteria.
- Mike didn't go out last week.
- I had a cup of tea this morning.

- Alex and I went to a party last night.
- Olga studied English at high school.
- We didn't do our homework last night.
- I saw Sam at dinner two days ago.
- I didn't speak English when I was 5.
- I bought a new MP3 player three weeks ago.

Task 15. Ask questions to the answers:

- He lived in a hostel before he found a flat. (Where?)
- He was absent from lessons because he was sick. (Why?)
- I bought my bag in the city centre. (Where?)
- I came to this country five weeks ago. (When?)
- I had three entrance exams. (How many?)
- I went to the park yesterday afternoon. (Where?)
- The movie started at 7:20. (When?)
- We had an exam two days ago. (When?)
- I took the bus to the university. (How?)
- I watched an interesting film last night. (What?)

2. Degrees of comparison

Short adjectives:			Long adjectives:	Exceptions:
tall	-er taller	-est the tallest	expensive – more expensive – the most expensive	good – better – the best bad – worse – the worst
short	shorter	the shortest	interesting – more interesting – the most interesting	far – further – the furthest
small	smaller	the smallest		many (much) – more – the most
old	older	the oldest		little – less – the least
big	bigger	the biggest	careful – more careful – the most careful	
hot	hotter	the hottest		
easy	easier	the easiest		
heavy	heavier	the heaviest		

Task 16. Write degrees of comparison for the following adjectives:

useful, old, interesting, new, good, heavy, big, dangerous, high, late, bad, easy, serious, important, comfortable, warm, hot, sharp, cheap, young, hardworking

Task 17. Complete the sentences. Use the adjectives in the proper form.

- This house is ... than that one. (big)
- Mike is ... in his group. (tall)
- This is ... book I have ever read. (interesting)
- Yesterday I got up ... than today. (early)
- The first task was ... than the last one. (easy)
- Russia is ... country in the world. (big)
- This way is ... than that one. (long)
- That way is the ... (short)
- My brother is ... than me. (young)
- My new cell phone is ... than my old one. (expensive)
- Rome is old but Athens is ... (old)

Task 18. Look at these cell phones (see App. 1). Discuss them using degrees of comparison of the following adjectives:

Example: Cell phone A is more modern than cell phone B. Cell phone C is the most stylish.

Modern, cheap, expensive, old, new, functional, stylish, big, small, light, heavy

Task 19. Translate the following sentences into English:

- Это здание выше чем то. Это самое высокое здание в городе.
- Джек старше, чем Том. Том самый младший в группе.
- Ричард усерднее Джона. Он самый трудолюбивый студент в группе.
- Этот метод программирования более удобный.
- Дизайн этого сайта – самый стильный.
- Сэм самый толковый программист в фирме.
- Не покупай самый дешевый телефон. Купи тот, у которого больше функций.
- Эта аудитория гораздо светлее, чем та.

Check yourself

Task 20. Put the verb into the Past Simple form:

1. ... she ... an umbrella? (buy)
2. When ... Sam yesterday? (come)
3. ... Sarah ... any classes? (have)
4. ... you ... her? (ask)
5. ... you tired? (be)
6. They ... their homework yesterday. (do)
7. The child ... off his bicycle. (fall)
8. I ... your keys under the table. (find)
9. She ... a new bike for her birthday. (get)
10. It ... cold last night. (be)

Reference on grammar:

Past Simple: <http://www.native-english.ru/grammar/past-simple>

Irregular verbs: <http://www.english.language.ru/lessons/verbs/verbs.html>

<http://www.native-english.ru/grammar/irregular-verbs>

<http://en365.ru/irregular.htm>

Technical reading: how to describe a function

1.	With the Present Simple	Calculator computes numbers. Media player plays music and video.
2.	is/are used to + Infinitive	Calculator is used to make computations with numbers. Headphones are used to listen to music.

Task 21. Read the text and answer the following questions:

1. What are the cell phone components?
2. What does CPU do?
3. What are screen and keypad used for?
4. When does screen acts like TV screen?
5. What are two types of a memory card?
6. What does memory chip store?
7. What type of batteries do cell phones use?
8. What are the advantages of lithium-ion batteries?

Cell Phone Parts

The electronic components of a cell phone include the battery, display screen, keypad, memory chip, and parts of the circuit board.

The brain of the cell phone is the CPU. It tells the different parts of the phone how and when to perform tasks.

The display screen and keypad are used for multiple tasks, including typing in phone numbers, text messaging, and in some phones, taking photos. When the screen and keyboard are used for photography functions, the display screen acts more like a TV screen and the keypad becomes the shutter-release button.

The memory card can either be installed as a chip on the mother board or it can be a separate card that can be removed. The memory chip stores information for the phone's operating system and the contact list directory.

The battery provides the energy required to power the phone. Cell phones generally use rechargeable batteries. One of the most popular batteries for cell phones these days is the lithium-ion battery. Lithium-ion batteries have no memory effect and they hold their charge better than most other battery types.

Adapted from:

http://www.unc.edu/~hbtiffan/index_files/Page481.html

Task 22. Find equivalents to the Russian words:

1. компонент	2. включать в себя	3. печатная плата
4. ЦПУ	5. различный	6. выполнять
7. действовать	8. спуск затвора	9. материнская плата
10. отдельная	11. удалять	12. хранить
13. каталог	14. предоставлять	15. требуемый
16. снабжать энергией	17. перезаряжаемый	18. литий-ионный
19. эффект памяти		

Task 23. Match the part of a cell phone with its function and make the sentences:

Example: Circuit board contains different chips.

circuit board; LCD screen; speaker; battery; aerial; microphone; touch screen; keyboard; camera lens
--

1. records voice or music
2. to take photos
3. to input numbers and letters
4. contains different chips
5. to input information
6. lets you hear information
7. powers the phone
8. receives and sends signals
9. displays information

Revision. Lessons 3-4.

Task 1. Match the words from two columns to make phrases. Translate the phrases:

1. administrative	a. elections
2. a wide	b. interest
3. to get	c. to the Internet
4. place of	d. communication
5. to take	e. range of
6. direct	f. decisions
7. means of	g. center
8. to get access	h. a picture
9. to make	i. equipped with
10. to be	j. information

Task 2. Complete the following sentences with the right word or phrase:

call; tool; features; provides; realised; support; appeared; important; means; added; contains; influence

- I ... a new picture to my webpage.
- Our university ... students with a room in a hostel.
- An IC ... transistors, resistors, capacitors and other elements.
- This new model of a cell phone has many useful
- Parents usually ... their children while they study at university.
- A hammer is a very useful ... in constructing houses.
- A new film ... on cinema screens last week.
- Wedding is an ... event in lives of people.
- I'm sorry, I'm busy now! ... me later, please.
- Do mass media have ... on people?
- Jack ... his mistake and tried to correct it.
- Cell phone is the most popular ... of communication today.

Task 3. Match two columns to make sentences. Translate the sentences:

1. Russia is the largest country	a. 83 smaller member republics.
2. Tomsk is one of	b. a democratic form of rule.
3. Some of wooden houses in Tomsk	c. that got access to the Internet.
4. Russian government is now based on	d. proud of wooden houses.
5. Tomsk was one of the first cities in Russia	e. dedicated to various subjects.
6. Russia has the world's largest reserves	f. one-quarter of the world's fresh water.
7. There are a number of museums in Tomsk	g. are still inhabited.
8. Russia is made of	h. in the world by land area.
9. People of Tomsk are	i. the oldest towns in Siberia.
10. Russian lakes contain approximately	j. of mineral and energy resources.

Task 4. Put the verbs into Present Simple form:

- Where ... you usually ... lunch? (to have)
- My car when it's cold. (to work, not)
- How ... you ... to the university? (to get)
- Jane usually ... to university on foot. (to go)
- ... your granny ... a mobile phone? (to use)
- ... you always ... your homework? (to do)
- Our lessons ... at 8.45 every day. (to start)
- I sugar in tea. (to put, not)
- How many languages ... you ...? (to speak)
- My new cell phone ... well. (to work)

Task 5. Two roommates met after a day at university. They asked each other some questions. Write questions using *Did you...* with a verb from the box A, choose the ending from the box B.

Answer the questions:

Example: – Did you attend lectures? – Yes, I did.

attend	lectures
have	classes
speak English	at English lesson
make calculations	volleyball today at PE
write computer programs	at Informatics
carry out experiments	in the laboratory today
write	at Math
play	a History lesson today

Task 6. Choose the correct verb form:

- Do you like/ are you liking** chocolate?
- Is Tom working/ Does Tom work** this week? – No, he is on holiday.
- “Are you enjoying / do you enjoy** your meal?”
“Yes, it's very good.”
- This term, **I study / am studying** Latin.
- Water **boils / is boiling** at a hundred degrees.
- I **make / am making** a lot of work at the moment.
- I **get / am getting up** at seven o'clock on weekdays.
- What time **are you going / do you go** to school on Tuesdays?
- I **am writing / write** an essay now.

Task 7. Complete the sentences using the Present Continuous or Present Simple form of the verbs in brackets:

- “Don't make a noise! The baby ... (to sleep) at the moment.
- Mary usually ... (to drive) to work, but this week she ... (to take) the bus.
- We ... (to start) school at 8:30 and the last lesson ... (to be) at 2:30 p.m.
- Max sometimes ... (to watch) TV after lunch.
- Jarvis ... (to sleep) at the moment. He wrote his article the whole night.
- Tom usually (to wash) his hands before meal.
- My cat (to play) with the ball. He (to like) playing with it.
- I (to read) books in bus when I (to go) to university.

Task 8. Translate the following sentences into English:

1. Новые программы позволяют нам получить доступ к интернету.
2. Смотри! Цвет раствора (solution) меняется.
3. Новые устройства содержат много удобных функций.
4. Я набираю номер Сэма, хочешь поговорить с ним?
5. Телевизор функционирует нормально, я сейчас смотрю кино.
6. Спутники связи предоставляют нам постоянный доступ в сеть.
7. Специалист устанавливает нам новую программу, не задавай ему глупых вопросов.
8. Я иду в палеонтологический музей. Пойдешь со мной?
9. Я сейчас обедаю в кафе, но обычно я обедаю дома.

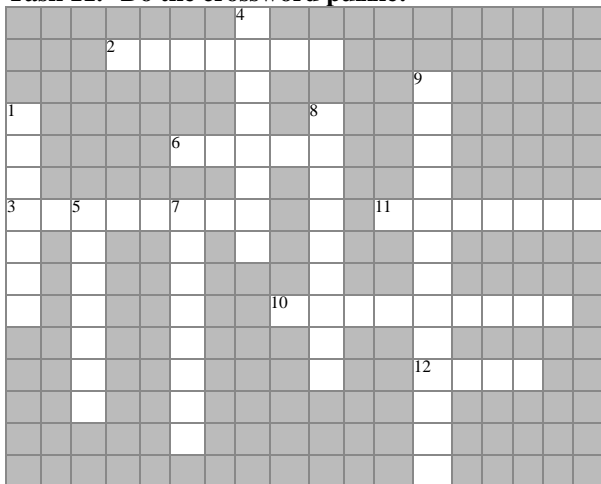
Task 9. Put the verbs into Past Simple form:

1. I ... him when we ... children. (to know/to be)
2. Tom ... the book and ... it to Jane. (to take/to give)
3. During the session students ... much time at libraries and ... hard. (to spend/to work)
4. A new model of notebook ... in the market. I ... it in the Internet. (to appear/to see)
5. Jill ... a report on History and ... it at a lesson last week. (to make/to read)
6. Students ... many questions after the lesson and professor ... them. (to ask/to answer)
7. When I ... 5 years old I ... a dog. (to be/to have)
8. Yesterday Ron ... to the cinema; he ... a very interesting film. (to go/to watch)
9. Jane ... about the meeting and she ... her group mates about it. (to know/to tell)
10. I ... Robert at university rowing club. We ... friends very quickly. (to meet/to become)

Task 10. Use the table to make sentences about Tomsk.

The city centre of Tomsk ...	is are can have	located near the river Tom.
Major concert venues in the city ...		full of places of interest.
The streets of Tomsk ...		a number of small museums.
On rainy days you ...		great for shopping.
The city also ...		the Philharmonic Concert hall and Tomsk Palace of Sport.
The war memorial park called Lagerny Garden ...		see birds and dragons.
Tomsk State University ...		find something to do in Tomsk.
On the windows of wooden houses you ...		centres of German, Polish and Tatar cultures.

Task 11. Do the crossword puzzle:



Across:

2. One hundred years together is a ...
3. Electronic devices have many different useful (singular)
6. Television, radio, newspapers and the Internet together.
10. When you need to go somewhere you choose a ...
11. When someone asks you for help - he asks for your
12. When you built a house or repair your car you use different

Down:

1. When something doesn't have any disadvantages it is....
4. It can be a house, a museum, a university, a hospital, but when you don't know what is inside – for you it's just a ...
5. A lot of computers connected with each other.
7. Economic activity connected with the processing of raw materials and manufacture of goods in factories.
8. An artificial space object placed in orbit round the earth or another planet in order to collect information or for communication.
9. When people exchange information it is called ...

Task 12. Complete the sentences. Use the adjectives in the proper form.

1. John lives in a ... flat. (small)
2. My room is ... than your room. (small)
3. This room is the (small)
4. I have ... time than you have. (little)
5. He has ... time than I have. (much)
6. Moscow is ... than St. Petersburg. (large)
7. Moscow is the ... city in Russia. (large)
8. My soup is ... than your soup. (hot)
9. This rope is ... than that cable. (thin)
10. Nick's jacket is ... than Tom's jacket. (dirty)
11. Sam's jeans are the (dirty)

Lesson 5. The Age of Electronics Part 1. The evolution of Electronics

Starter:

- When did the Age of Electronics start?
- What is the basic element of modern electronic devices?
- Can you name any scientists who contributed to the development of electronics?

Word bank:

<ol style="list-style-type: none"> 1. to apply – применять 2. a circuit – цепь, схема 3. current – электрический ток 4. to develop – создавать, развивать 5. to discover – открывать 6. electromagnetic – электромагнитный 7. field – поле 	<ol style="list-style-type: none"> 8. to generate – вырабатывать, генерировать 9. induction – индукция 10. operation – действие, работа 11. radiation – распространение, излучение 12. resistance – сопротивление 13. a wave – волна
---	--

Task 1. Read the interview and answer the questions:

1. Do electronic devices make our life easier?
2. What are the examples of these devices? What do they do?
3. What scientists are named in the interview?
4. What were their great discoveries?
5. Why are modern devices not possible without transistors?
6. What electronic device is the most useful in your opinion?
7. What electronic devices do you have at home?
8. Can you live without them?
9. Would you agree to live without your cell phone?

This is an interview with a university professor who teaches Electronics for a TV show “The age of electronics”:

Interviewer: Professor, what can you say about present day technologies?

Professor: I think technologies today are rather **developed** and they are still **developing**. We have many useful devices which make our life easier.

Interviewer: That’s right! Today everybody has a cell phone, a personal computer or a laptop. We can have them with us everywhere – it’s very useful!

Professor: Yes! And handheld computers are very popular among students today! They seem to be more convenient.

Interviewer: Young people can surf the Internet, check e-mail, download and exchange pictures and music wherever they are!

Professor: Yes, that’s right! It is very distracting at lessons!

1. a battery – батарея
2. to believe – верить
3. a cell – элемент питания
4. convenient – удобный
5. to derive – выводить, получать
6. distracting – отвлекающий
7. electromagnetic induction – электромагнитная индукция
8. handheld – карманный, переносной

Interviewer: Yes, I can understand you! But we also have many useful devices at home: microwave ovens, TV sets, refrigerators, washing machines! They do all the work for us!

Professor: That’s right but it was not always so! We all know that in the past there was no electric **current**, we didn’t know about electromagnetic **induction**, varying magnetic **field** or electromagnetic **radiation** through space.

Interviewer: Yes, these were great **discoveries**! Many scientists worked hard to make these discoveries!

Professor: That’s right! For example, in 1799 Alessandro Volta was the first to develop voltaic cell that could produce electricity as a result of chemical reaction; in 1864 James Maxwell formulated the **electromagnetic** theory of light, which told that electromagnetic **waves** travel in free space at the speed of light.

Interviewer: That’s very interesting! And I know that in 1948, William Shockley, John Bardeen and Walter Brattain developed the transistor.

Professor: Good for you! Transistor is a very important part of all modern equipment! Tiny transistors are important elements of integrated **circuits** which make modern devices operate!

Interviewer: It’s hard to believe! Such small things make such big machines do the work for us!

Professor: And year after year technologies become more and more developed. And modern devices have more functions.

Interviewer: Yes! And we have more and more opportunities! Thank you for coming, professor! Good bye!

Useful words and phrases:

9. a varying magnetic field – переменное магнитное поле
10. a phenomenon – явление
11. a relation – отношение
12. space – пространство
13. tiny – крошечный
14. through – через
15. voltaic – гальванический
16. wherever – где бы ни ...

Task 2. Read the text quickly and match the year, the scientist and the invention:

Example: Alessandro Volta was the first who developed a battery in 1799.

History and evolution of electronics

Year	Scientist	Invention
a. 1799	Allessandro Volta	1. Demonstrated the effect of electromagnetic radiation through space.
b. 1827	George Simon Ohm	2. Derived the relation between the voltage applied (V), the current (I), and the resistance (R) of a circuit. This is the most famous and the most basic law: $V=IR$.
c. 1831	Michael Faraday	3. Developed a transistor
d. 1864	James Clerk Maxwell	4. Discovered that current can be generated by using varying magnetic field. This phenomenon was named as the electromagnetic induction which is the basic principle of the generator operation.
e. 1888	Heinrich Hertz	5. He formulated an important theory known as the electromagnetic theory of light, which tells that electromagnetic waves travel in free space at the speed of light.
f. 1895	Guglielmo Marconi	6. He was the first who developed a battery known as the voltaic cell that could produce electricity as a result of chemical reaction.
g. 1948	William Schockley, John Bardeen and Watter Brattain	7. Sent electromagnetic signals through space and set up the first transatlantic wireless communication system.

Task 3. Read the text again and define if the following sentences are True (T) or False (F) :

- Electromagnetic waves cannot go through air.
- The Ohm's law says that the voltage equals the current multiplied by resistance.
- Generator operates on the principle of electromagnetic induction.
- Chemical reaction can generate electricity.
- You cannot send electromagnetic wave over an ocean.
- Electromagnetic waves travel at the speed of sound.
- Electromagnetic signals can be sent into the outer space.

4. basic law

- закон базы
- основной закон
- законная база

5. transatlantic wireless communication system

- трансатлантическая беспроводная система связи
- связь трансатлантической беспроводной системы
- системная трансатлантическая беспроводная связь

6. generator operation

- операция генератора
- работа генератора
- генеральный оператор

7. basic principle

- принципиальная база
- основной принцип
- базисный принцип

8. radiation through space

- радиация в космосе
- излучение в пространстве
- через пространство радиации

9. nuclear power station

- мощная ядерная станция
- мощность ядерной станции
- атомная электростанция

Task 4. Choose the right translation:

1. circuit element

- элементарная цепь
- цепной элемент
- элемент цепи

2. radio wave

- волновая радиация
- волновое радио
- радио волна

3. voltaic cell

- вольтовая ячейка
- вольтовая клетка
- гальванический элемент

Task 5. Fill in the table:

Verb	Translation	Noun	Translation
to react	<i>реагировать</i>		
		operation	<i>работа, действие, деятельность</i>
to relate	<i>иметь отношение, относиться</i>		
		productivity	<i>производительность, продуктивность</i>
		demonstration	<i>показ, демонстрация</i>
to resist	<i>сопротивляться, противостоять</i>		
		discovery	<i>открытие</i>
to radiate	<i>излучать (свет, тепло), испускать (лучи)</i>		
		generation	<i>генерация, выработка</i>

Task 6. Fill in the right part of speech into the following sentences. Use the words from the box above.

Example: John asked Nick for help, but Nick didn't react.

John asked Nick for help, but Nick didn't show any reaction.

- This scientist made a great ... in the field of physics.
William Schockley, John Bardeen and Watter Brattain ... a transistor in 1948.
- Every year this factory ... millions of useful devices.

Authorities of this factory wanted to rise ... and bought new equipment.

- This discovery of archaeologists ... to the early history of mankind.
Jane studies at Humanitarian faculty. Her specialty is Public
- A resistor is a device that adds ... to a circuit. Antibodies help us to ... infection.
- Some types of ... are very harmful for our health. A radio transmitter is a device that ... radio waves.
- Computer is a device that ... by electricity. ... of an automobile depends on many factors.

Task 7. Fill in the table:

Noun	translation	Adjective	translation
wire	электрический провод		
		systematic	систематический
freedom	свобода		
fame	известность, слава		
		effective	эффективный
base	основа, основание; базис		
		magnetic	магнитный
chemistry	химия		
		spacious	просторный, вместительный

Task 8. Fill in the right part of speech into the following sentences. Use the words from the box above.

Example: Fame is very important for movie stars.

All movie stars want to be famous.

- ... is the branch of science.
Nickel is a ... element.
- Practice is the ... of learning.
Resistor is one of the ... elements in an electric circuit.
- The detective worked hard but his work didn't have any
Work of that scientist was very
Heinrich Hertz successfully demonstrated the ... of electromagnetic radiation through space.
- Computer networks can be connected with
Guglielmo Marconi set up the first transatlantic ... communication system.

- This house is very big and There are 3 bedrooms in it.
Radio waves travel through

Task 9. Put the words in the right order to make sentences:

- flows / wires / electric / copper / current / through.
- adds / electric / a resistor / resistance / to / circuit / an.
- scientist / this / made / in the field / a discovery / of Physics.
- different / consists of / an / circuit / circuit / elements / electric.
- a flow / electric / is / of electrons / current.
- station / power / energy / generates.
- gravity / Isaac Newton / law of / discovered.
- operate / by electricity / electronic devices
- the basic principle of the generator operation

Grammar: Present Simple Passive, Past Simple Passive

1. Present Simple Passive

Many devices	are	produced	every month.
This room	is	cleaned	every day.
A lot of cell phones	are	sold	in many shops all over the city.
Message	is	sent	with a cell phone.

2. Past Simple Passive

The telephone	was	invented	by A. Bell.
This room	was	cleaned	yesterday.
A lot of cell phones	were	sold	in this shop last month.
Many discoveries	were	made	by great scientists in the past.

We use the Passive voice:

- when the action is directed towards the subject, the subject doesn't perform the action;
- when it is unknown or unimportant who performs the action; the action itself is more important.

Task 10. Fill in the right form of the verb "to be" (Present or Past) into the following sentences:

- Nowadays the information ... sent by the Internet.
- Satellites ... used for communication today.
- Many discoveries ... made in the field of Physics for the last 100 years.
- Everybody left the room and the TV set ... switched off.
- Do you know by whom the radio ... invented?
- Every second millions of calls ... made in the world.

7. Many songs ... **sung** at the concert last week.
8. The concert of Metallica ... **shown** on TV last night.
9. Scientific articles ... **published** in this journal every month.
10. Very important decision ... **made** by the Dean of this faculty yesterday.

Task 11. Translate the following sentences into Russian; point out the verbs in the Passive form:

1. Electricity can be produced from chemical reaction.
2. One of the basic laws of Physics was formulated by George Simon Ohm.
3. The electromagnetic theory of light was formulated by James Clerk Maxwell in 1864.
4. The transistor was developed by William Shockley, John Bardeen and Watter Brattain in 1948.
5. The effect of electromagnetic radiation through space was demonstrated by Heinrich Hertz in 1888.
6. The current can be generated by using varying magnetic field.
7. This phenomenon was named as the electromagnetic induction.
8. Nowadays a lot of devices are controlled by microprocessor.

Task 12. Make sentences from the given words:

Example: My car / damage / last night, (past). My car was damaged last night.

1. Cheese / make / from milk, (present)
2. Roubles/ change into dollars / at the bank, (present)
3. Several people / hurt / in the accident last night, (past)
4. The children / give / some pens and pencils, (past)
5. The fence / paint / every year, (present)
6. The letter / post / yesterday, (past)
7. The machines / make / in Germany, (present)

Task 15. Choose the correct variant:

1. Your luggage (bring) to your room.
 - a. were brought
 - b. was brought
 - c. be brought
2. The milk (sell) in the supermarket.
 - a. is sold
 - b. sell
 - c. sells
3. The paper (read) very carefully.
 - a. read
 - b. was read
 - c. was readed
4. Some lemons (buy) yesterday
 - a. were bought

8. The singer / show / last night, (past)
9. This computer / make / in the USA. (past)

Task 13. Rewrite the sentences in the Past Passive tense:

Example: Someone broke this mirror last night. This mirror was broken last night.

1. Someone bought this coat in France.
2. Someone built the house two years ago.
3. Someone cleans the rooms in the hotel every day.
4. Someone drives this car every week.
5. Someone found a bike in the lake.
6. Someone stole all my money.
7. Someone visits the palace every weekend.
8. They grow bananas in Brazil.
9. They pay the workers weekly.
10. They play volleyball on the beach.

Task 14. Put the verbs in brackets into the correct tense, Active or Passive:

1. I'm going home now because I ... (to do) all the work five minutes ago.
 2. Jim's house is very modern. It ... (to build) only two years ago.
 3. Peter ... (to run) two kilometres every day before work.
 4. Not much (to know) about this phenomenon at present time.
 5. The new nightclub ... (to open) last week.
 6. The thieves (to steal) the money from the safe yesterday.
 7. This photograph (to take) by my father when I was three.
 8. This song ... (to record, not) in 2012; it ... (to record) in 2011.
 9. This tree is very old. It ... (to plant) in the 19th century.
- We began work early, but we (to finish, not) until late.

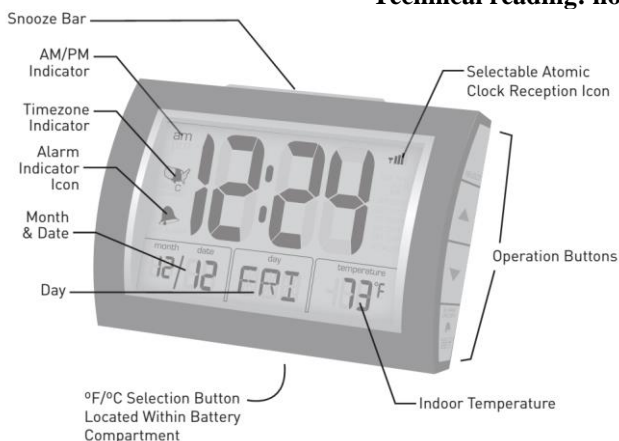
Check yourself

- b. was buyed
 - c. bought
5. Sarah (meet) by her father an hour ago.
 - a. was meet
 - b. were met
 - c. be met
 6. Tennis (play) in summer.
 - a. played
 - b. were played
 - c. is played
 7. The text (translate) without dictionary last lesson.
 - a. is translated
 - b. translated
 - c. was translate

Reference on grammar:

Simple Passive: http://www.langust.ru/unit_ur/ureg_067.shtml
http://www.alleng.ru/mybook/3gram/6verb_25.htm

Technical reading: how to read an instruction



After that, press “SELECT” again to confirm and exit setup selection mode.

Task 16. Find the equivalents to the Russian words:

1. после	2. устанавливать	3. часовой пояс
4. летнее время	5. предпочтение	6. в начале
7. атомные часы	8. поддерживать, сохранять	9. точность
10. регулировать	11. режим	12. выбор
13. удерживать	14. подтвердить	15. текущий
16. настройка	17. кнопка, клавиша	18.

Picture and text from:

<http://www.acurite.com/manuals/13131a2.pdf>

Main Unit: Basic Setup

After installing batteries, the year, month, date, time, time zone and DST (daylight saving time) preferences must be set initially. After the initial manual setting, the atomic clock will maintain its accuracy and adjust for DST automatically.

To enter into the setup selection mode, press AND HOLD the “SELECT” button.

1. Set current time hour using “▲” and “▼” buttons. Then press “SELECT” to confirm.
2. Set current time minutes using “▲” and “▼” buttons. After that, press “SELECT” to confirm.
3. Set time zone using “▲” and “▼” buttons. Next, press “SELECT” to confirm.
4. Set DST using “▲” and “▼” buttons. Then, press “SELECT” to confirm.
5. Set alarm time hour using “▲” and “▼” buttons. Next, press “SELECT” to confirm.
6. Set alarm time minute using “▲” and “▼” buttons.

Task 17. Find the equivalents to the Russian phrases:

1. После установки...
2. ... должны быть установлены...
3. Чтобы войти в режим выбора установок...
4. Затем...
5. После этого...
6. Далее...

Task 18. Study these rules to writing an instruction and write an instruction to set year, month and date:

1. **Start with infinitive without “to”:** Set current time...
2. **Add explanation with infinitive +to:** To enter into the setup selection mode...
3. **Put instructions in order with “then”, “after that”, “next”:** Then press “SELECT” to confirm.

Lesson 5. The Age of Electronics Part 2. Transistors

Starter:

- Do you know what transistor is? - Where can you find it? - When was it invented?

Word bank:

1. to amplify – усиливать	9. an integrated circuit – интегральная схема (цепь)
2. to complete – выполнять, завершать	10. a junction – контакт, (электрическое) соединение
3. complex – сложный	11. reliable – надежный
4. computer engineering – вычислительная техника	12. to result in – приводить к
5. to create – создавать	13. silicon – кремний
6. digital – цифровой	14. a switch – переключатель
7. to exist – существовать	15. a vacuum tube – электронная лампа
8. to enable – позволять, давать возможность	

Task 1. Find Russian equivalents to the words and phrases below and define the part of speech:

Transistor, Nobel Prize, revolution, technological, vacuum, ideal, electromechanical, energy, televisions, telephone systems, components, alternatives, germanium, element, control, electrons, electricity, pre-transistor computers, machine, silicon transistor, numbers of calculations, individual components, electronic components.

Task 2. Complete the table:

Verb	Noun
amplify	
complete	
	integration
result	
build	
	computer
	switch

2	Bardeen and Brattain used the element germanium to create an amplifying circuit.
1947	George Teal created the first silicon transistor.
1956	Since this time the number of transistor per unit area has been doubling.
3	The Bell Labs team won the Nobel Prize in Physics.
30	The number of scientists who invented transistors.
17,000	The number of vacuum tubes in the first computer.
1954	The weight of ENIAC.
0 and 1	Time in which the number of transistor per unit area is doubling.
the 1960s	Two binary states.
1.5	World War

Task 3. Read the text quickly and match the numbers and their meanings:

How Transistors Work



The Bell Labs team of John Bardeen, Walter Brattain and William Shockley won the 1956 Nobel Prize in Physics for their work in developing transistors.

<http://www.gettyimages.com/>

If cells are the building blocks of life, transistors are the building blocks of the digital revolution. Without transistors, the technological wonders you use every day – cell phones, computers, cars -- would be very different, if they **existed** at all.

Before transistors, product engineers used **vacuum tubes** and electromechanical **switches** to complete electrical **circuits**. Tubes were far from ideal. They had to warm up before they started to work (and sometimes overheated when they worked), they were unreliable and bulky and they used too much energy. Everything from televisions to telephone systems, to early computers used these components, but in the years after World War II, scientists were looking for alternatives to vacuum tubes.

In 1947 Bardeen and Brattain used the element germanium to create an **amplifying** circuit, also called a point-contact transistor. Soon afterward, Shockley improved their idea by developing a **junction** transistor.

The next year, Bell Labs announced to the world that it had invented working transistors. This invention won the Bell team the 1956 Nobel Prize for Physics.

25 What exactly is a transistor, anyway? Transistors are devices that control the movement of electrons, and consequently, electricity. They start and stop the flow of a current, and they also control the amount of the current. With electricity, transistors can both
30 switch or amplify electronic signals. It lets you control current that moves through a circuit board with precision.

One of the first pre-transistor computers, the famous ENIAC weighed 30 tons, partly because it
35 contained more than 17,000 vacuum tubes. It was obvious that transistors would completely change **computer engineering** and **result in** smaller machines.

In 1954, George Teal, a scientist at Texas
40 Instruments, created the first **silicon** transistor. Soon after, manufacturers developed methods for mass-producing silicon transistors, which were cheaper and more **reliable**.

Silicon transistors helped computers make huge
45 numbers of calculations in a short time. The simple

switch operation of transistors is what enables your computer to complete massively **complex** tasks. In a computer chip, transistors switch between two binary states – 0 and 1.

50 In a chip, the transistors aren't isolated, individual components. They're part of what's called **an integrated circuit** (also known as a microchip), in which many transistors work together to help the computer complete calculations. An integrated circuit
55 is one piece of semiconductor material loaded with transistors and other electronic components. These circuits, usually called just "chips", contain billions of very small transistors. Since the 1960s, the number of transistors per unit area has been doubling every 1.5
60 years, meaning engineers can cram more of them into smaller and smaller products.

by Nathan Chandler

[http://electronics.howstuffworks.com/transistor2.htm/
65 printable](http://electronics.howstuffworks.com/transistor2.htm/printable)

Useful words and phrases:

1. afterward – после
2. amount – величина, количество
3. to announce – объявлять
4. binary – двоичный
5. a building blocks – строительный блок
6. bulky – громоздкий
7. consequently – следовательно
8. completely – полностью
9. to cram – втиснуть
10. to double – удваиваться
11. ENIAC (Electronic Numerical Integrator and Computer) – электронный цифровой интегратор и калькулятор
12. exactly – точно
13. far – далеко
14. huge – огромный
15. to improve – улучшать(ся)

16. in part – частично
17. an integrator – интегрирующее устройство
18. junction transistor – плоскостной транзистор
19. loaded – нагруженный
20. massively – массивно, в широком масштабе
21. a movement – движение
22. obvious – очевидный
23. to overheat – перегреваться
24. per unit area – на единицу площади
25. point-contact transistor – точечный транзистор
26. precision – точность
27. product engineer – конструктор, разработчик
28. to result in – приводить к чему-либо
29. to warm up – разогреться
30. to weigh – весить
31. without – без
32. wonder – чудо

Task 4. Read the text again and define if the following sentences are True (T) or False (F) :

1. Without transistors, cell phones, computers, cars can't exist.
2. Tubes were not ideal.
3. In the time of World War II transistors were invented.
4. In 1947 a point-contact transistor was invented.
5. Transistors are devices that control the movement of electrons, but cannot control electricity.
6. The first computer was build using transistors.
7. Germanium transistors are better than silicon transistors.
8. An integrated circuit is one piece of semiconductor material with many transistors.
9. Engineers can create smaller and smaller devices.

Task 5. Answer the questions:

1. What did scientists use before transistors?
2. What are the disadvantages of vacuum tubes?
3. What is an alternative to a vacuum tube?

4. What is a point-contact transistor?
5. What was the material used for the first transistor?
6. Who developed a junction transistor?
7. What is a transistor?
8. What does it do?
9. What were the characteristics of ENIAC?
10. Why are silicon transistors better?
11. What enables your computer to complete complex tasks?
12. What is an integrated circuit?

Task 6. Put the correct word or phrase into the sentences; use the words from the Word bank:

1. ... are building blocks for modern devices.
2. Computers make ... calculations.
3. He bought a ... camera last year.
4. He needed one more step to ... the algorithm.
5. Scientists ... new technologies every day.
6. Silicon transistors are more
7. There ... a vast variety of electronic components. Transistors can ... the current.

Grammar: Present and Past Simple Passive questions and negatives

Is the room cleaned ?	No, it is not . Nobody cleans it.
Are transistors made of iron?	No, they are not . They are made from silicon.
Was the radio invented by Newton?	No, it was not . It was invented by Popov.
Were transistors invented in 1935?	No, they were not . They were invented in 1948.

Task 7. Rewrite the sentences into the negative form:

- Jam is made from fruit.
- The grass was cut by Andrew.
- Alice was woken up at 7 o'clock by her mother.
- The dog is walked by the boys every day.
- The waiter was asked to bring some water.
- Our newspaper is brought by a boy every morning.
- The meeting was attended by several important scientists.
- An interesting book was published by the company.
- We were invited to a concert last Sunday.
- Mushrooms are collected in autumn.

Task 8. Write questions for these answers in the Passive form:

- Yes, rice is grown in Spain.
- Yes, the song was sung by them.
- No, the trees weren't cut down.
- No, the story isn't known.
- Yes, he was told to be quiet.
- Yes, New York is named after the British city of York.
- No, Elephants are not found in this area.
- Yes, Portuguese s spoken in Brazil.
- Yes, sushi was taken first in Japan.
- No, the bicycle wasn't sold by my father.

Task 11. Put the verbs in brackets into the correct form:

- ... the robots ... at this factory? (to produce)
- ... you ... to the party yesterday? (to invite)

Task 9. Put these questions into the Passive form:

- Did Spain win the last football Olympics?
- Do people speak English in Costa Rica?
- How do people make sushi?
- When did Pasteur discover Penicillin?
- Where do people speak Mandarin?
- Who directed the film "Avatar"?
- Do English people drink tea with milk?
- Do farmers grow rice in Argentina?

Task 10. Put the sentences into the Past Simple Passive form:

- Carl Benz made the first motor car.
- How much money did the police found?
- Van Gogh didn't paint "Mona Lisa".
- Lennon and McCartney wrote the song "Yesterday".
- The government ordered them to build a new bridge.
- When did Cook discover Australia?
- Jennifer Aniston is recognized all over the world.
- They speak English in Australia.
- People keep money in the banks.
- She didn't find the book.

Check yourself

- ... your dog ... ? (to train)
- Our project ... last month. (not to finish)
- The key... yesterday. (not lose)
- These tasks ... by him. (not to do)

Technical reading: Warnings

How to warn NOT to do something:	Don't smoke in this room. No smoking. Never smoke at gas stations. You must not smoke here.
How to warn DO something:	Always keep your passwords in secret. You must keep your password in secret.

Task 12. Read and translate the text.

Safety Rules at Physics Lab

When you are doing practical trainings in a Physics lab, remember to keep your work area clean and organized. Never be in a hurry to complete your task. Do not touch live wires. Do not play with things which are not related to your experiments. Be careful you use hot water in thermodynamics related experiments as they can cause serious burns on the body. Use of gloves is recommended when you take hot objects. Any small error in connections can cause a major

accident. When you make changes in the circuit, turn off the power supply. This will stop current and prevent electric shock. Never carry any substance which may catch fire as this is dangerous for everyone's safety. Everyone in the lab should use safety clothing like safety coats, goggles, gloves when you are performing practical trainings. Everyone in the lab should know the locations of fire extinguishers and the quick exit door. If any accident occurs, report it to the teacher.

Adapted from: <http://www.buzzle.com/articles/science-lab-safety-rules.html>

Task 13. Read the text again and find all warnings:

Example: Keep your work area clean.

Task 14. Write similar warnings for work with a computer:

Example: Always make an extra copy of all your important data.

Don't bring food or drink near the computer.

Revision Lessons 1 – 5

Task 1. Match two columns to make phrases.

Translate the phrases:

1. a first-year	a. lectures
2. Information	b. on foot
3. attend	c. university
4. carry out	d. borders
5. take part	e. an opportunity
6. go	f. student
7. give	g. a message
8. engineering	h. experiments
9. get	i. in competitions
10. a wide	j. Security
11. share	k. equipped with
12. make	l. field
13. send	m. higher education
14. be	n. decisions
15. electromagnetic	o. range of

Task 2. Match two columns to make sentences.

Translate the sentences.

1. Before transistors, engineers used vacuum tubes and...	a. a computer you can see the whole world as if it is in the next village.
2. Modern cell phones...	b. make huge numbers of calculations in short time.
3. Nowadays you can send a message ...	c. time zones and has a wide range of environments.
4. There is a number of museums in ...	d. electromechanical switchers to complete electrical circuits.
5. Russia spans nine ...	e. in partnership with foreign universities.
6. Before you decide which cell phone to buy ...	f. through the Internet in a few seconds.
7. When you turn on the TV or ...	g. with the most modern computers and other devices.
8. Silicon transistors helped computers...	h. have a variety of tools.
9. The centre of Distant Education is equipped ...	i. Tomsk dedicated to various subjects.
10. TUSUR carries out research...	j. think about features you value.

Task 3. Fill in the right word or phrase:

a. allow; b. contain; c. by bus; d. control; e. partly;
f. opportunity; g. is good at; h. get; i. various;
j. supportive; k. got access; l. resolution; m. efficient;
n. something; o. influence

- Tom easily does the tasks on Physics. I think he ... it.
- This method is not very Let's try another method.
- Parents ... their children to play in the park.
- Lakes of Russia ... approximately one-quarter of world's fresh water.
5. When I do homework I usually use the Internet. It's very
- On rainy days you can find ... to do in Tomsk.
- I leave far enough. So, I usually go to university

- This conference is a great ... for students to show the results of their work.
- Tomsk was one of the first cities in Russia that ... to the Internet in the early 1990s.
- Mass media ... us greatly.
- To write a course work students use information from ... internet sites.
- Russia is a country which is ... in Eastern Europe and partly in Asia.
- Most phone cameras have about three megapixel of
- When you surf the Internet you can ... any information you need.
- Transistors are devices that ... the movement of electrons, and consequently, electricity.

Task 4. Fill in "a/an", "the" or "-" (no article) into the following sentences:

- This is my table. On ... table I have ... book, ... pen, ... two pencils and ... paper.
- Jack is ... electrician. He works with ... electricity.
- ... Greece is ... European country.
- Sarah usually buys ... cup of coffee and ... cake in ... cafeteria.
- In ... Internet you can find ... information.
- Today is such ... lovely day! ... sun is shining and ... sky is blue!
- I have ... idea! We should go to ... gym more often!
- We live in ... Tomsk. Our friends live in ... Kemerovo.
- I see ... man and ... woman. ... man is tall and ... woman is quite short.
- Jane never drinks ... coffee in ... morning.
- John has ... great idea. ... idea is to go for ... walk!

Task 5. Put "there is" or "there are" into the following sentences:

- ... lots of classrooms in the main building. It is very big.
- ... twenty-five students in my group.
- ... any cakes left? -No, I'm sorry, I ate them all.
- ... a letter on your desk. It is from your uncle.
- Look! ... beautiful clouds in the sky.
- ... two parks in this town. They are quite big.
- ... a bird in the picture.
- ... some people in the park.
- ... (not) any cars in the street.

Task 6. Fill in the proper modal verb into the following sentences:

- I ... go and talk to her, she asked me.
- I ... go and talk to her.
- He ... come now.
- You ... be right.
- What weight ... you carry?
- All of you ... read this book.
- I ... play football well, but I'm unable to play now, I don't feel well.
- You ... exercise more to be healthier.
- You ... do as I tell you.
- You ... help her.
- I ... do it today. - Do it if you

Task 7. Put the correct question word into the sentences and answer the questions:

where, when, what, why, how, how many, how often

1. ... are you from?
2. ... do you have English lessons?
3. ... do you leave home in the morning?
4. ... students are there in your group?
5. ... do you spend your free time?
6. ... is your favourite subject?
7. ... do you like it?
8. ... university do you study at?
9. ... do you go after lessons?
10. ... do you do at Mathematics?

Task 8. Choose the correct variant:

1. I **don't understand/ I'm not understanding** this rule. Could you explain, please.
2. We **write/ are writing** a test now.
3. The sun **rises/ is rising** in the East.
4. Right now all the students of our group **carry out/ are carrying out** an experiment.
5. I **work/ am working** at a new project this month.
6. My friend **plays/ is playing** the guitar very well.
7. Do you hear this music? This is John. He **plays/ is playing** the guitar.
8. **Do you know/ are you knowing** Pete? Is he a good person?
9. We often **watch/ are watching** TV with parents in the evenings.
10. I **like/am liking** your new jeans. They are stylish.

Task 9. Write the plural of the following words:

1. a tooth –	2. a boy –
3. an experiment –	4. a subject –
5. a university –	6. a liquid –
7. a grant –	8. water –
9. a bus –	10. a chair –
11. a lesson –	12. a shelf –
13. a man –	14. a roof –
15. a child –	16. a chief –
17. an opportunity –	18. a wife –
19. a foot –	20. a photo –
21. a student –	22. a potato –
23. an engineer –	24. a person –
25. sugar –	26. snow –
27. a book –	28. a chance –
29. a day –	30. a box –
31. a lady –	32. a brush –

Task 10. Complete the questions. Use these verbs:

to be to get up to live to be to do to get to study

1. -Where? - I study at university.
2. - What time in the morning? - At 7.30.
3. - How the university? - I go on foot.
4. - Where from? - I'm from Kazakhstan.
5. - in a hostel? - Yes, I do.
6. - What your favourite subject? - I love Physics.
7. - What in your free time? - I listen to the music, meet with friends, go to the gym or simply read.

Task 11. Write three forms of the following verbs:

1. get –	2. write –
3. know –	4. read –
5. speak –	6. take –
7. go –	8. give –
9. come –	10. spend –
11. have –	12. make –
13. break –	14. send –
15. fly –	16. buy –
17. see –	18. grow –

Task 12. Open the brackets with the verb in the Past Simple:

1. The bus ... (to arrive) at 9 o'clock.
2. A little girl ... (to cry) loudly but then ... (to smile).
3. How ... you ... (to spend) your weekends?
4. Sam ... (to take, not) the book from the library. He ... (to download) it from the Internet.
5. Yesterday I ... (to get up) at 7 o'clock.
6. ... you ... (to know) about the conference?
7. I ... (to see) this film before. You should watch it.
8. I my childhood I ... (to want) to have a dog but I ... (to have, not) it.
9. People at the bus stop ... (to look) at the road.
10. Where ... you ... (to find) this book? ... you ... (to buy) it?
11. Rick ... (to come) home late last night. He ... (to work) till late.
12. The party ... (to be) great. We ... (to have) a really good time.
13. I ... (to know, not) about the meeting, so I ... (to go, not).
14. ... you ... (to make) this present for mother yourself?
15. Nick ... (to write) a report and ... (to send) it to the teacher by e-mail.
16. That scientist ... (to be) born in Europe but ... (to grow up) in the USA.
17. Mrs Smith ... (to work) in the kitchen. She ... (to cook) dinner for her family.
18. Last weekend's we ... (to visit) our grandparents.

Task 13. Complete the sentences. Use the adjectives in the proper form:

1. This week I'm ... than I was last week. (busy)
2. Alex is the ... student of the group. (active)
3. Ruslan is ... than other students in his group. (active)
4. This time I got ... marks for the test than I had last time. (good)
5. The previous test was ... than this one. (difficult)
6. This river is ... than that one. (long)
7. Do you know what river is the ... in the world? (long)
8. Mike's car is ... than my car. (fast)
9. Cheetah is the ... animal in the world. (fast)
10. A horse is ... than an elephant. (fast)

Check yourself: Answers

Lesson 1. Personal life. Part 1. Nice to meet you!

Task 8. Put the right form of the verb “to be”:

1. is 2. is 3. am not 4. is 5. is 6. is 7. Are 8. are
9. is 10. am

Task 9. Complete the sentences with my, your, her, his, our or their:

1. your, 2. his, 3. my 4. her, 5. their 6. our 7. his
8. our 9. her

Lesson 1. Personal life. Part 2. About myself

Task 11. Fill in “a/an”, “the” or “no article” into the following sentences:

1. -; a; - 2. an; an; The 3. a; a 4. a 5. the 6. -; - 7. -; -

Lesson 2. Education. Part 1. My day at university

Task 11. Put the verb in brackets into the Present Simple form:

1. don't do; 2. works; 3. doesn't sleep; 4. work;
5. drink; 6. Does Mike like; 7. Does Lora have;
8. get; 9. do you attend; 10. takes

Lesson 2. Education. Part 2. TUSUR

Task 18. Put “there is”, “there are”, “are there” or “is there” into the following sentences:

1. There is; 2. There are; 3. are there; 4. there are;
5. Is there; 6. Are there; 7. There is; 8. Are there.

Task 19. Put “can”, “may” or “must” into the following sentences:

1. can; 2. can, can't; 3. must; 4. may; 5. must; 6. may;
7. can

Task 20. Rewrite the following nouns in plural:

Feet; churches; skies; mice; problems; countries;
businesses; lines; coins; factories.

Lesson 3. The Russian Federation Part 1. Russia

Task 15. Put the verb into the Present Continuous form:

1. I'm going; 2. am trying; 3. is raining; 4. am looking;
5. I'm not working; 6. are you wearing

Lesson 3. The Russian Federation. Part 2. Tomsk

Task 16. Put the verb into the Present Continuous form:

1. I'm not drinking; 2. am writing; 3. don't drink;
4. is Alex doing; 5. is running; 6. sleeps;
7. doesn't work; 8. get up; 9. isn't playing; plays.

Lesson 4. Communication Part 1. Means of communication

Task 15. Put the verb into the Past Simple form:

1. began; 2. had; 3. left; 4. took; 5. began; 6. had; 7. had.

Lesson 4. Communication Part 2. Functions of a modern cell phone

Task 20. Put the verb into the Past Simple form:

1. Did she buy; 2. When did Sam come;
3. Did Sarah have; 4. Did you ask; 5. were you tired;
6. did; 7. fell; 8. found; 9. got; 10. was

Lesson 5. The Age of Electronics Part 1. The evolution of Electronics

Task 14. Choose the correct variant:

1. b; 2. a; 3. b; 4. a; 5. a; 6. c; 7. c;

Lesson 5. The Age of Electronics Part 2. Transistors

Task 10. Put the sentences into the Past Simple Passive:

1. Are the robots produced; 2. Were you invited?
3. Is your dog trained? 4. wasn't finished;
5. wasn't lost; 6. weren't done

Vocabulary

Lesson 1. Personal life. Part 1. Nice to meet you!

1. a student – студент
2. a university – университет
3. a faculty – факультет
4. a specialty – специальность
5. a first-year student (a freshman) – студент первокурсник
6. a second-year student – студент второго курса
7. Nice to meet you! – Приятно познакомиться!
8. hardworking – трудолюбивый
9. Where are you from? – Откуда ты?
10. a cousin – двоюродный брат/сестра
11. Information security – информационная безопасность
12. Computer systems – вычислительные системы
13. to play the guitar – играть на гитаре
14. occupation – род занятий
15. a group mate – одногруппник

Lesson 1. Personal life. Part 2. About myself

1. six days a week – 6 дней в неделю
2. to attend lectures – посещать лекции
3. to carry out experiments – проводить эксперименты
4. free time – свободное время
5. to go to the gym – ходить в тренажерный зал
6. to spend time – проводить время
7. together – вместе
8. a hostel – общежитие
9. competitions – соревнования
10. to take part in – принимать участие в...
11. Where – где, куда
12. When – когда
13. What – что, какой
14. Why – зачем, почему
15. How – как
16. How often – как часто
17. How many – сколько

Lesson 2. Education. Part 1. My day at university

1. to conduct experiments – проводить эксперименты
2. to make calculations – делать вычисления
3. to pass exams – сдавать экзамены
4. entrance exams – вступительные экзамены
5. to study hard – усердно учиться
6. applicants – абитуриенты
7. a timetable – расписание
8. on Mondays – по понедельникам
9. to get to the university – добираться до университета
10. to live in a hostel – жить в общежитии
11. to take part in competitions – принимать участие в соревнованиях
12. to go on foot – ходить пешком
13. to go by bus – ездить на автобусе
14. far enough – достаточно далеко
15. twice a week – дважды в неделю
16. to go in for rowing – заниматься греблей

17. to attend lessons – посещать занятия
18. to get monthly grant – получать стипендию
19. supportive – полезный, помогающий
20. favourite subject – любимый предмет
21. to be good at smth. – хорошо разбираться в чем-либо

Lesson 2. Education. Part 2. TUSUR

1. engineering university – технический университет
2. to allow – позволять, допускать
3. efficient – эффективный
4. a department – отделение
5. to be equipped with – быть оборудованным чем-либо
6. to give an opportunity – дать возможность
7. to get higher education – получить высшее образование
8. a device – прибор, устройство
9. to leave – оставлять, покидать
10. to create – создавать
11. research – исследование
12. to carry out – выполнять
13. cooperation – сотрудничество
14. development – развитие
15. various – разнообразный
16. field – область, сфера

Lesson 3. The Russian Federation Part 1. Russia

1. total area – общая площадь
2. to be based on – быть основанным на ч. -л.
3. a border – граница
4. to contain – содержать
5. to cover – покрывать
6. to decide – решить, принять решение
7. direct elections – прямые выборы
8. environment – окружающая среда
9. government – правительство
10. language – язык
11. local – местный
12. natural gas – природный газ
13. oil – нефть
14. official – официальный, зд.: государственный
15. partly – частично
16. produce – производить, вырабатывать
17. reserve – запас, резерв
18. semi-presidential republic – президентско-парламентская республика
19. to share – делить
20. a wide range of – большое разнообразие

Lesson 3. The Russian Federation. Part 2. Tomsk

1. an administrative centre – административный центр
2. cultural – культурный
3. educational – образовательный
4. located – расположенный
5. an institution – учреждение
6. industry – промышленность, индустрия
7. to get access to smth – получить доступ к чему-либо
8. a place of interest – достопримечательность

9. city centre – центр города
10. a building – здание
11. to look – смотреть
12. various – разнообразный
13. a memorial – памятник
14. perfect – идеальный
15. to be proud of – гордиться чем-либо
16. to visit – посещать

Lesson 4. Communication Part 1. Means of communication

1. to appear – появляться
2. a century – столетие, век
3. to call – 1. звонить; 2. звать
4. communication – коммуникация; связь
5. to communicate – общаться связываться
6. to get information – получить информацию
7. greatly – сильно, значительно
8. important – важный
9. to influence – влиять, оказывать влияние
10. to make decisions – принимать решения
11. a kind – вид, род
12. main – главный, основной
13. means – средство; способ
14. media – 1. средства связи, 2. СМИ
15. simple – простой
16. to realise – 1. понимать, осознавать; 2. осуществлять; выполнять
17. a satellite – спутник
18. to send a message – отправить сообщение
19. to surf the Internet – бродить по сети
20. a thing – вещь, предмет
21. to turn off – выключать
22. to turn on – включать

Lesson 4. Communication Part 2. Functions of a modern cell phone

23. to add – добавлять, прибавлять, присоединять
1. to allow – позволять, разрешать
2. to be equipped with – быть оборудованным, оснащённым чем-либо
3. to change – менять(ся), изменять(ся)
4. to contain – содержать, включать
5. a device – прибор, устройство, приспособление; механизм; аппарат, машина
6. to dial – набирать номер
7. a direction – направление
8. a feature – особенность, характерная черта; деталь, признак, свойство
9. to function – работать (функционировать)
10. hold – держать, удерживать
11. to look for – искать
12. a network – сеть
13. to provide with – снабжать, обеспечивать (чем-либо)
14. resolution – разрешение (число точек на единицу длины или площади)
15. to set – устанавливать
16. to support – поддерживать, помогать
17. a tool – инструмент
18. to take a picture/a photo/an image – фотографировать

Lesson 5. The Age of Electronics Part 1. The evolution of Electronics

1. to apply – применять
2. a circuit – цепь, схема
3. current – электрический ток
4. to develop – создавать, развивать
5. to discover – открывать
6. electromagnetic – электромагнитный
7. field – поле
8. to generate – вырабатывать, генерировать
9. induction – индукция
10. operation – действие, работа
11. radiation – распространение, излучение
12. resistance – сопротивление
13. a wave – волна

Lesson 5. The Age of Electronics Part 2. Transistors

1. to amplify – усиливать
2. to complete – выполнять, завершать
3. complex – сложный
4. computer engineering – вычислительная техника
5. to create – создавать
6. digital – цифровой
7. to exist – существовать
8. to enable – позволять, давать возможность
9. an integrated circuit – интегральная схема (цепь)
10. a junction – контакт, (электрическое) соединение
11. reliable – надежный
12. to result in – приводить к
13. silicon – кремний
14. a switch – переключатель
15. a vacuum tube – электронная лампа