

ПЕРМСКИЙ  
ГОСУДАРСТВЕННЫЙ  
НАЦИОНАЛЬНЫЙ  
ИССЛЕДОВАТЕЛЬСКИЙ  
УНИВЕРСИТЕТ

# ИНОСТРАННЫЙ ЯЗЫК (АНГЛИЙСКИЙ)

## MATERIALS FOR PSYCHOLOGY STUDENTS

### TEACHER'S NOTES



МИНИСТЕРСТВО НАУКИ И ВЫСШЕГО ОБРАЗОВАНИЯ  
РОССИЙСКОЙ ФЕДЕРАЦИИ

Федеральное государственное автономное  
образовательное учреждение высшего образования  
«ПЕРМСКИЙ ГОСУДАРСТВЕННЫЙ  
НАЦИОНАЛЬНЫЙ ИССЛЕДОВАТЕЛЬСКИЙ УНИВЕРСИТЕТ»

# ИНОСТРАННЫЙ ЯЗЫК (АНГЛИЙСКИЙ)

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*Допущено методическим советом  
Пермского государственного национального  
исследовательского университета в качестве  
учебно-методического пособия для преподавателей английского языка,  
работающих по направлению подготовки бакалавров  
и магистров «Психология»*



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Данное учебно-методическое пособие представляет собой методические рекомендации для преподавателей к учебно-методическому пособию «Иностранный язык (английский). Materials for Psychology Students. Student's Book».

В пособие включены рекомендации по введению и проведению различных видов заданий для студентов психологов с учетом развития всех видов речевой деятельности, тексты материалов для прослушивания и ответы к заданиям и упражнениям. Пособие состоит из восьми разделов, охватывающих основы психологического знания.

Пособие предназначено для преподавателей английского языка, читающих дисциплину «Иностранный язык (английский)» студентам бакалаврам и магистрам психологических отделений университетов.

Кроме того, пособие может быть использовано в обучении будущих преподавателей английского языка в качестве примера книги для учителя из комплекса материалов по ESP для студентов-психологов.

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# Unit 1

## THE SCIENCE OF PSYCHOLOGY

### Chapter 1

#### THE FIELDS OF PSYCHOLOGY

#### WARM-UP

The terms we use

- Elicit as many words and phrases from students as possible. Most likely, some students won't know English equivalents for what they know in Russian. At this stage they can learn from each other; help them if they get stuck.

**Possible suggestions:** human mental and physical development; human behavior; consciousness; the part of your mind that has thoughts and feelings you do not know about (subconscious = unconscious]; the way people interact and influence each other; peer pressure (a strong feeling that you must do the same things as other people of your age if you want them to like you), etc

- Invite students to give their own definitions of psychology.

(Pairwork, then sharing with the whole group and comparing their definitions with the one from a dictionary: Psychology is the science of behavior and mental processes).

#### LISTENING

Pre-listening

- At this stage provide support to students by predicting/reviewing information. In this introductory phase, give an overview of the topic; pre-teach significant terms if needed and/or elicit the students' background knowledge on the topic. This information can be organized on the board in the form of a mind-map.

**The following phrases can help students:**

Deal with; investigate; conduct research; study; specialize in; be concerned with

#### VOCABULARY FOCUS

##### A. Word formation

This task can be done as pre-listening (providing scaffolding for lower language proficiency groups) or as a vocabulary build-up in the post-listening  
Key

<i>Noun</i>	<i>Verb</i>	<i>Adjective</i>
e.g. behaviour	behave	behavioral
<i>development</i>	<i>develop</i>	developmental
experiment	<i>experiment</i> (with, on)	<i>experimental</i>
science	-	<i>scientific, scientist</i>
<i>retirement</i>	retire	<i>Retired; retiring (the retiring president/manager/director etc who is soon going to leave their job)</i>
<i>adjustment</i>	<i>adjust (to)</i>	adjusted
breadth	<i>broaden</i>	<i>broad</i>
<i>thought</i> <i>thinking (clear/critical/analytical etc thinking (=a particular way of thinking about things))</i>	think	thinkable (= possible, able to be thought about or considered); thinking; thoughtful
identity, <i>identification (ID = passport)</i>	<i>identify</i>	<i>identifiable (able to be recognized); identical</i>
<i>marriage</i>	<i>marry</i>	marital
<i>motive (=reason); motivation</i>	motivate	<i>motivated; motivating</i>

**B. Match the definitions with the words/phrases they describe**

Key: 1 – e, 2 – d, 3 – i, 4 – j, 5 – a, 6 – g, 7 – b, 8 – c, 9 – f, 10 – h

Note: If students' proficiency is lower, offer them to match the English words with their Russian equivalents:

- |   |                 |
|---|-----------------|
| 1. зрелость, взрослость   | a) puberty      |
| 2. внутриутробный, предродовой  | b) parenting    |
| 3. член группы людей одного и того же возраста, социального положения | c) hereditary   |
| 4. младенец, ребенок (до 7 лет )                                      | d) prenatal     |
| 5. стадия полового созревания   | e) adulthood    |
| 6. резкие перемены настроения   | f) research     |
| 7. воспитание детей, забота о детях                                   | g) mood swings  |
| 8. наследственный, потомственный                                      | h) group morale |
| 9. (научное) исследование   | i) peer         |
| 10. командный настрой, боевой дух                                     | j) infant       |

While-listening

## **FIELDS OF PSYCHOLOGY**

Task 1

**Listening for the main idea. Students listen to identify the overall ideas expressed in the recording.**

Key

Developmental psychology – 1

Social Psychology – 5

Personality Psychology – extra

Physiological Psychology – 2

Experimental Psychology – 3

Industrial and Organizational Psychology (I/O) – 6

Clinical and Counseling Psychology – 4

## Task 2

### **Listening for details. Students listen for groups of words and phrases at sentence level.**

Students are going to take notes of the lecture. They do it in Russian of course, and can suggest some tips on how to do it efficiently. Encourage them to share briefly (summarize, use key words, abbreviations and symbols). Invite them to try to do the same in English.

### **Tapescript**

#### Lecture

Psychologists are interested in every aspect of human thought and behaviour. One way to grasp the breadth and depth of psychology is to look at the several major subdivisions of the field.

1 These specialists study *human mental and physical growth from the prenatal period through childhood, adolescence, adulthood, and old age*. *Child psychologists* focus on infants and children. They are concerned with such issues as whether babies are born with distinct personalities and temperaments, how infants become attached to their parents and caretakers, the age at which sex differences in behavior emerge, and changes in the meaning and importance of friendship during childhood. *Adolescent psychologists* specialize in the teenage years, and how puberty, changes in relationship with peers and parents, and the search for identity can make this a difficult period for some young people. *Life-span psychologists* focus on the adult years, and the different ways individuals adjust to partnership and parenting, middle age, retirement, and eventually death.

2 Psychologists specializing in this field investigate the *biological basis of human behaviour, thoughts, and emotions*. *Neuropsychologists* are primarily interested in the brain and the nervous system. Why can't you taste food when you have a stuffy nose? What happens when a person has a stroke? *Psychobiologists* specialize in the body's biochemistry, and how hormones, psychoactive medications (such as antidepressants), and "social drugs" (such as alcohol, marijuana or cocaine) affect people. Do changes in hormone levels – at puberty, before menstruations, at menopause – cause mood swings? Exactly how does



alcohol act on the brain? *Behavioural geneticists* investigate the impact of heredity on both normal and abnormal traits and behaviour. To what degree is intelligence hereditary? What about shyness? Do illnesses such as alcoholism and depression run in families? To what extent are differences in the way men and women think, act, and respond to situations rooted in biology?

3 In this field psychologists *conduct research on basic psychological processes*, including learning, memory, sensation, perception, cognition, motivation, and emotion. They are *interested in answering such questions as*: How do people remember and what makes them forget? How do people make decisions and solve problems? Do men and women go about solving complex problems in different ways? Why are some people more motivated than others?

4 When asked to describe “psychologists” most people think of a *therapist* who sees patients in his or her office, *a clinic, or a hospital*. This popular view is half correct. About half of all psychologists specialize in clinical or counseling psychology. Psychologists are interested primarily in the diagnosis, cause, and treatment of psychological disorders. *Counseling psychologists* are considered primarily with “*normal*” *problems of adjustment* that most of us face at some point, such as choosing a career or coping with marital problems. Clinical and counseling psychologists often divide their time between treating patients and conducting research on the causes of psychological disorders and the effectiveness of different types of psychotherapy and counseling.

5 These psychologists study how *people influence one other*. They explore such issues as *first impressions* and *interpersonal attraction*, how attitudes are formed and maintained or changed, prejudice, conformity, and whether people *behave differently* when they are *part of a group or crowd* than they would on their own.

6 These professionals are concerned with such practical issues as *selecting and training personnel, improving productivity and working conditions*, and the impact of computerization and automation on workers. Is it possible to determine in advance who will be an effective salesperson or airline pilot, and who will not? Do organizations tend to operate differently under female as opposed to male leadership? Research shows that work groups with high morale

usually are more productive than those with low morale; are there specific strategies that managers can use to *improve group morale*?

## **USE OF ENGLISH**

### **PSYCHOLOGISTS STUDY AND CONTRIBUTE TO THE WORK ENVIRONMENT**

Key 1 – what; 2 – their; 3 – from; 4 – or; 5- for; 6 – and; 7 – is; 8 – with; 9 – that; 10 – example; 11- more

### **SPEAKING**

- Invite students to work in groups of three-four and share in which subdivisions they are interested in and why.

Encourage students themselves help each other with words and peer correction and refer to you as ‘the last resort’. Monitor mistakes unattended during the conversation and deal with them later as a whole class activity. Don’t name the people who made those mistakes just offer (on the board) some faulty sentences/phrases for correction (e.g. Identify the mistakes and correct them)

- **Careers in Psychology**

You might like your students to give the English equivalents for the following specializations in Russia (from the State Educational Standards in Psychology): Общая психология (General Psychology), история психологии (Psychology History); Психофизиология (Psychophysiology); Инженерная психология (Engineering Psychology – conduct research on how people work best with machines. For example, how can a computer be designed to prevent fatigue and eye strain?) Клиническая психология (Clinical Psychology); Социальная психология (Social Psychology); Юридическая психология (Psychology of Law); Педагогическая психология (Educational Psychology); Коррекционная психология (Correctional Psychology); Психология личности (Personality Psychology); Политическая психология (Psychology of Politics); Психология развития (Developmental Psychology); Психология труда (Industrial and Organizational Psychology); Дифференциальная психология, психодиагностика (Differential Psychology, Psycho diagnosis).

## READING

### WHAT HOLDS PSYCHOLOGY TOGETHER?

#### Pre-reading

Ask students to discuss their answers to the questions in pairs. Monitor the pairwork and bring the class together again to compare ideas. You may like to do this as a whole-class activity, eliciting responses from different students.

#### While reading

**A.** This task aims at developing the skill of understanding main points in a paragraph and matching them to a heading.

Ask students to read the paragraphs quickly and match four of the five headings to the four paragraphs. Remind them that one heading is extra.

When everyone has chosen their answers, move on to task **B** without revealing the answers.

#### **B. How did you know?**

Aim: to develop the skill of locating main points in a text

Ask students to underline two phrases or sentences in each paragraph which helped them make their decision. Then move to task **C**, where students discuss their choices, without revealing the answers.

#### **C. Discuss**

Ask students to discuss their answers to tasks **B** and **C** in pairs. Monitor the pairwork and bring the class together again to compare ideas. Make sure that all students now have the correct answers.

#### Key

- 1 – E (heredity and environment or experience; “nature vs. nurture” debate)
- 2 – D (stay unchanged; How much do we change?)
- 3 – B (like all other people; like no other person)
- 4 – A (the relationship between thoughts and feelings and biological processes)

## VOCABULARY FOCUS

Aim: to develop key ESP/EAP vocabulary. This could be done as home task.

## Key

1	Throughout	6	diversity
2	Occur	7	applied
3	behaviors	8	experience
4	significant	9	extent
5	share	10	experience

## GRAMMAR FOCUS

Aim: to brush up grammar knowledge and skills

## Key

1. What field of psychology are you interesting – interested in?
2. Who or what was the **biggest – biggest** influence on your entering the field?
3. What **is – are** your achievements?
4. What do you **enjoying -enjoy** most/least about your job?
5. When did you **knew – know** this was ‘the dream job’ to which you aspired?
6. What **did surprise – surprised** you most when you began the job?
7. What **does – is** your average day like?
8. What’s **is – repetition** the biggest sacrifice you’ve made for your career?
9. If you had to do all over again, what **you would – would you** do differently?
10. What **advices – advice/pieces of advice** would you give someone wanting to enter this field?

## Chapter 2

### THE GROWTH OF PSYCHOLOGY

#### WARM-UP

- **Possible commentary:** Dating back to the time of Plato and Aristotle, people have wondered about human behavior and mental processes. But not until the late 1800s did they begin to apply scientific method to questions that had puzzled philosophers for centuries. Only then did psychology come into being as a formal discipline separated from philosophy.
  
- What research methods/techniques are used in psychology?

**Possible answers:** *Naturalistic observation* – studying human or animal behavior in its natural context instead of under imposed conditions in the laboratory. *Case Studies* – it is similar to naturalistic observation. A researcher observes the real-life behavior of one person or just a few people at a time. Case studies helped Sigmund Freud develop his psychological theories. *Surveys* – they address some of the shortcomings of naturalistic observation and case studies. In survey research, a carefully selected group of people is asked a set of predetermined questions in face-to-face interviews or in questionnaires. Perhaps the most familiar surveys are the polls taken before major elections. *Experimental method* – an investigator deliberately manipulates selected events or circumstances and then measures the effects of those manipulations on subsequent behavior; etc.)

## **READING**

Task 1

Key: Structuralism

Task 2

Key: 1 – b; 2 – b; 3- a; 4 – c; 5 – c

## **USE OF ENGLISH**

### **GESTALT PSYCHOLOGY**

Key

1 – in; 2 – that/which; 3 – at; 4 – do; 5 – like; 6 – means; 7 – to; 8 – its;  
9 – into; 10 – not

## **ACTIVE LISTENING**

### **Role-play**

Note: if students find it too difficult to speak on their own, let them read an interesting passage/newspaper clipping to retell (those should be prepared in advance).

### **Possible suggestions for the table:**

### **POOR LISTENING BEHAVIORS**

avoids eye contact (closes eyes, looks away)

yawns, stretches or blankly stares

looks repeatedly at watch or clock

walks around the room

sits stiffly, turned away from speaker

taps fingers, shows impatience

does not acknowledge speaker in any way

inappropriate ones

makes no verbal responses, or

## GOOD LISTENING STRATEGIES

sits alertly, attentively

facial expression reflects interest

does not check the time often

takes notes

leans toward speaker

remains reasonably still

verifies information, asks appropriate questions

nods, smiles, responds speaker' spontaneously

**A paraphrase of the proverb:** When your group controls the (learning) process, your learning is faster, more relevant, and sustained (устойчивый, стабильный). Assessment is built into your group's competency and control.

### Presentation Rubric

Note: Students are asked to work out a presentation rubric; it is a challenging task in itself. Let them visit the site <http://pblchecklist.4teachers.org/> individually or in small groups first (in class or home) to have a thorough look at it then discuss their ideas as a class; take the lead whenever they get stuck.

A sample rubric

Student Name: \_\_\_\_\_

Date: \_\_\_\_\_

Project: \_\_\_\_\_

	4	3	2	1
Content	Information was interesting/important to others; the speaker was well-informed about the topic; the speaker used vocabulary that the audience could understand or defined unfamiliar terms; vocabulary was strong and varied; used logical appeals where appropriate; used emotional appeals where appropriate; correctly answered all questions from the audience	Info was quite interesting/important to others; the speaker was quite well-informed about the topic; the speaker used vocabulary that the audience could understand most of the time or defined unfamiliar terms most of the time; vocabulary was quite strong and varied; used logical appeals quite successfully; used emotional appeals quite successfully; correctly answered most questions from the audience	Information was not very interesting/important to others; the speaker was not very well-informed about the topic; the speaker used vocabulary that the audience could not always understand or was not always able to define unfamiliar terms; vocabulary was not strong and varied enough; used logical appeals not always successfully; was not able to correctly answer a few questions from the audience	Hard to tell what the topic was; the speaker was poorly informed about the topic; was not persuasive nor logical; was not able to deal with questions from the audience
Delivery	maintained eye contact; pronunciation was clear; rate of speech was not too fast or too slow; voice varied in pitch; didn't use	maintained eye contact most of the time; pronunciation was quite clear; rate of speech was not too fast or too	didn't maintain eye contact well enough; pronunciation was unclear at times; rate of speech was sometimes	hardly maintained eye contact; pronunciation was unclear; rate



	4	3	2	1
	<p>filler words; used standard grammar; body language was appropriate; didn't read from notes, used them seldom</p>	<p>slow; voice varied in pitch; didn't use a lot of filler words; used standard grammar most of the time; body language was quite appropriate; didn't read from notes all the time, used notes from time to time</p>	<p>too fast or too slow; voice didn't vary in pitch well enough; used quite many filler words; grammar failed at times, but it was possible to follow ; body language was tense; read from notes quite often</p>	<p>of speech was too fast or too slow; voice didn't vary in pitch; used filler words too often; had serious problems with grammar; body language showed tension and nervousness; heavily relied on notes</p>

	4	3	2	1
Organization	Organized ideas in a meaningful/structured way; the audience could distinguish the introduction, body and conclusion; stayed focused and didn't stray from the topic	Organized ideas in a meaningful/structured way most of the time; the audience could distinguish the introduction, body and conclusion quite easily; stayed focused and practically didn't stray from the topic	At times ideas were muddled and not easy to follow; it took effort to distinguish the introduction, body and conclusion; strayed from the topic at times	Ideas were poorly structured; couldn't stay focused
Presentation aids	Presentation aids were relevant and properly used during the presentations; pr. aids were creative; not distracting; easily viewed and read/heard; didn't contain spelling or grammar mistakes	Presentation aids were quite relevant and properly used during the presentations; pr. aids were quite creative; not distracting; easily viewed and read/heard; didn't contain spelling or grammar mistakes	Presentation aids were sometimes used during the presentations; pr. aids were standard; not quite illustrative; not always easily viewed and read/heard; contained some spelling or grammar mistakes	Presentation aids were irrelevant at times; pr. aids were standard; distracting; badly viewed and read/heard; contained a lot of spelling or grammar mistakes

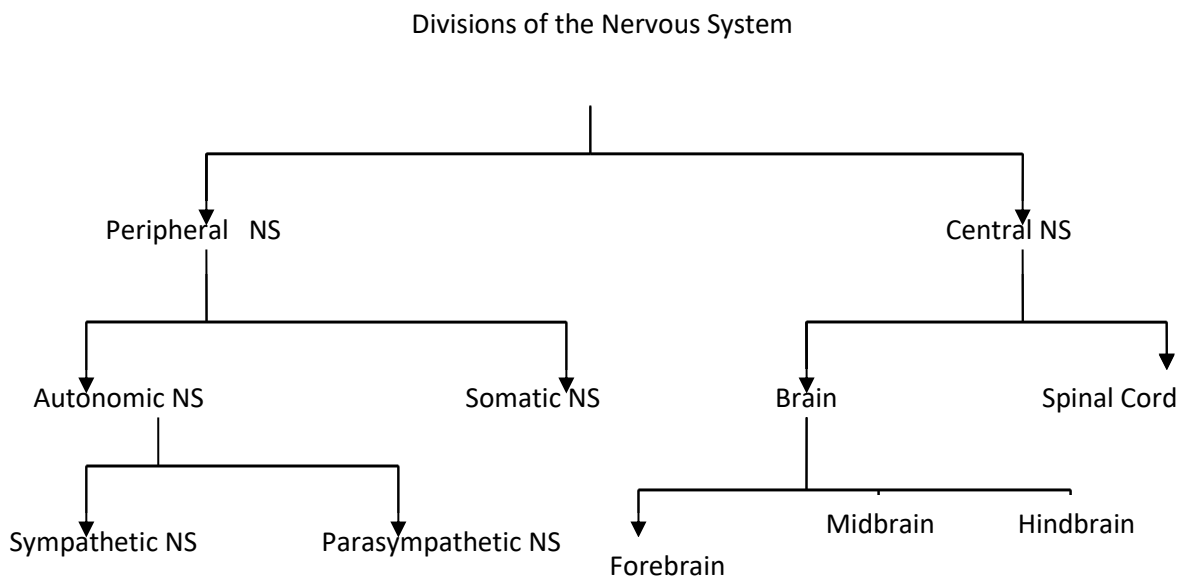
	4	3	2	1
Re-sources	Used resources that addressed the topic thoroughly; resources reflected different perspectives; prominent resources were referred to in the speech; a bibliography was available	Used resources that addressed the topic quite thoroughly; resources reflected different perspectives; not all prominent resources were referred to in the speech ; a bibliography was available	Used resources that didn't address the topic thoroughly enough; resources reflected only some perspectives; prominent resources were hardly referred to in the speech; a bibliography was short	Resources didn't reflect significant perspectives; prominent resources were not referred to in the speech; a bibliography was poorly prepared

**Unit 2**  
**THE BIOLOGICAL BASIS OF BEHAVIOR**  
**Chapter 1**  
**THE NERVOUS SYSTEM**

**WARM-UP**

Aim: to develop specialized vocabulary

Key



**THINK ABOUT IT!**

1. Do drugs affect the behavior of neurons? Yes, they either increase or decrease the quantity of neurotransmitters in the synapse.
2. True or False: Injuries to certain parts of the brain can produce blindness, even if the eyes themselves are not damaged. True, damage to the occipital lobe can produce blindness.
3. Can we control our own blood pressure and headaches? Yes, evidence suggests that people (and animals) can manipulate the autonomic nervous system.

## DISCUSSION

### A Computer in Your Head?

#### Possible answer:

Similar	Different
Computers and brains both need energy.	A computer needs electricity; it can be switched off and on. Unlike a computer, the human brain has no off switch. Even when we are asleep, our brain is active. The brain gets its energy from the food we eat.
Both use electrical signals to transmit information.	Computers send electrical signals through wires; brain sends electrical signals through nerve cells (neurons). There are fundamental differences in the way information is transferred through electrical circuits in a computer and through nerve cells in the brain.
Computers and brains perform many similar functions: store memories.	Computers do it on chips, disks, and CD-ROMs, brains use neuronal circuits throughout the brain.
Both can be modified to perform new tasks.	New hardware and software can be installed in computers to add additional memory and programs. The brain undergoes continual modification and can learn new things. The brain can sometimes rewire itself when necessary! For example, after some kinds of brain injuries, undamaged brain tissue can take over functions previously performed by the injured area.

Similar	Different
Computers and brains both can monitor their surroundings and respond with behaviour to manipulate their environment.	Computers can be programmed to control heaters, lights and other equipment in response to the information they receive. The brain may respond to sensory information automatically (such as causing your body to shiver when it is very cold), or it may cause you to change your behaviour.
The contents inside the computer are protected by a hard cover. The skull provides a similar function for the brain.	Computers are relatively easy to repair. Unfortunately, brains are not so easy to repair.
	Consciousness is the biggest difference. Although computers can perform extraordinary computational tasks very quickly, they do not experience emotions, dreams, and thoughts that are an essential part of what makes us human.

## LISTENING

Key:

1 – T      5 – F

2 – F      6 – T

3 – T      7 – F

4 – T      8 – F

### Tapes script

The brain was not always held in high regard. The Greek philosopher, Aristotle, thought the heart, not the brain, was the location of intelligence and thought. The ancient Egyptians also did not think much of the brain. In fact, when creating a mummy, the Egyptians scooped out the brain through the nostrils and threw it away. However, the heart and other internal organs were removed carefully and preserved. These organs were then placed back into the body.

Nevertheless, the ancient Egyptians are responsible for the oldest written record using the word ‘brain’ and have provided the first written accounts of the anatomy of the brain, the meninges (coverings of the brain) and cerebrospinal fluid. The word ‘brain’ appears on a papyrus called the Edwin Smith Surgical Papyrus. This document was written around the year 1700 BC, but is based on texts that go back to about 3000 BC. This document is considered to be the first medical document in the history of mankind. It is possible that the papyrus was written by the great Egyptian physician named Imhotep.

The papyrus is a description of 48 cases, and several of them are important to neuroscience because they discuss the brain, meninges, spinal cord, and cerebrospinal fluid for the first time in recorded history.

The brain is mentioned 7 times throughout the papyrus. However, there is no use of the word ‘nerve’. Scholars of medical history are impressed with the rational, scientific approach to diagnosing and treating the 48 patients. The methods used are based on rational observation and practical treatment and are for the most part, free of ‘magic’ and superstition.

The surgical papyrus is named after Edwin Smith, an American Egyptologist who was born in 1822 and died in 1906. Smith bought the surgical papyrus

from a dealer named Mustapha Aga. After Smith died, his daughter gave the papyrus to the New York Historical Society. The English translation was published in 1930. Now the papyrus is at The New York Academy of Medicine. It has been part of its collection since 1948.

## READING

### NEURONS: THE MESSENGERS

Pre-reading

**A. Imagine that we put under a microscope the nervous system's smallest unit: the nerve cell, or neuron. What does it look like? Which parts does it consist of?**

Key: Dendrite Cell nucleus Cell body Axon, etc.

**B. Match the words from the left column with their definitions from the right column.**

Key: a – 8; b – 3; c – 2; d – 7; e – 1; f – 13; g – 11; h – 4; i – ; j – 6; k – 9; l – ; m – 10

While-reading

**Read the text below and label the parts of the neuron in the figure. Check your results with your partner.**

Key: Dendrite Cell nucleus Cell body Axon Myelin sheath Terminal buttons

Note: you might find it worthwhile to ask students to translate some parts of the text into Russian

## USE OF ENGLISH

Key: 1 – of; 2- that; 3 – performing/doing/conducting; 4 – in; 5 – been; 6 – than; 7 –by; 8 – has



## ACADEMIC STYLE

**1. The following sentences are mixed formal and informal. Write F (formal) or I (informal) in the brackets after each sentence.**

Key: a – F; b – F; c – F; d – I; e – F; f – I; g – I; h – F; i – I; j – I.

**2. The following sentences are all informal. Rewrite them in a formal style.**

- A. He said it wasn't good enough. (It was said that it was unsatisfactory.)
- B. The results were a lot better than I expected. (The results appeared to be better than expected.)
- C. We've got to find out how to carry out the research. (We need to discover how to conduct the research.)
- D. I thought the lecture was terribly difficult to follow. (It seemed that the lecture was very difficult to understand.)
- E. As far as I know he is still there. (It was reported that he was still there.)

**3. Cautious language is important in academic writing. In the passage below underline the vocabulary (e.g. impersonal verb phrases, etc) that makes the language careful and tentative.**

The two major language areas in the brain are called Broca's area and Wernicke's area. Wernicke's area lies toward the back of the temporal lobe. This area is crucial in understanding what others are saying. By contrast, Broca's area, found in the frontal lobe, is considered to be essential to our ability to talk. To oversimplify a bit, Wernicke's area seems to be important for listening, and Broca's area seems to be important for talking.

If the brain damage primarily affects Broca's area, the aphasia (language problems) tends to be "expressive". That is, the patients' language difficulties lie predominantly in producing language (talking). If the damage primarily affects Wernicke's area, the aphasia tends to be "receptive", and patients generally have serious difficulties understanding language (listening).

Recent research shows, however, that this model of the brain may apply only to males.

## DIFFERENT STYLES

**I. Look at these explanations of ‘the spinal cord’, written in different styles. Decide if the explanations are spoken or written. Match each one with the source from which you think it is taken.**

### The Spinal Cord

Key: a – 2; b – 4; c – 5; d – 1; e – 3.

### Do this crossword

(When there are two words in an answer, there is an empty square between them)

#### Across

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3. **SPINAL CORD** – the thick string of nerves enclosed in your spine
4. **HYPOTHALAMUS** – forebrain region that governs motivation and emotional responses
6. **NEURON** – a type of cell that makes up the nervous system
8. **BRAIN** – the organ inside your head that controls how you think, feel, and move
9. **CELL** – the smallest part of a living thing that can exist independently
10. **CORTEX** – the outer layer of your brain
12. **NERVE** – part inside your body which look like threads and carry messages between the brain and other parts of the body
13. **IMPULSE** – a short electrical signal that travels in one direction along a nerve

## **Down**

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1. **THALAMUS** – forebrain region that relays and translates incoming messages from the sense receptors, except those for smell
2. **ENDOCRINE** – relating to the system in your body that produces hormones
4. **HORMONE** – a chemical substance produced by your body that influences its growth, development, and condition
5. **THORAX** – the part of your body between your neck and diaphragm
7. **SYNAPSE** – the place where nerve cells meet, especially in the brain
9. **CEREBELLUM** – the bottom part of your brain that controls your muscles
11. **REFLEX** – a sudden uncontrolled movement that your muscles make as a natural reaction to a physical effect

## Chapter 2

### THE ENDOCRINE SYSTEM

#### WARM-UP

In groups of three or four develop a definition of the endocrine system using this mind-map. Which verbs do you think you will need? Which linking words<sup>1</sup>? Then compare your results as a whole group.

Note: monitor students' work and help them if necessary.

Possible answer:

The endocrine system – the other communication system in the body – is made up of endocrine glands that produce hormones, chemical substances released into the bloodstream to guide such processes as metabolism, growth, and sexual development. Hormones are also involved in regulating emotional life.

#### VOCABULARY FOCUS

- A. Key: 1 –e; 2 –f; 3 – i; 4 –h; 5 –a; 6 –c; 7 – g; 8 –b; 9 –d
- B. 1 –secretes; 2- reduce; 3- leads to; 4 – causes; 5 – produced; 6 – control; 7 – balance; 8 – affects/influences; 9 – responds to

#### DISCUSSION

The answers to this exercise are rather subjective. The most interesting aspect is the discussion which will arise from students disagreeing with each other. Many students will find the idea of using monolingual dictionaries new. Point out to the advantages of this technique at Intermediate level and to the fact that translation does not improve reading skills.

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<sup>1</sup> **Linking words** or **discourse markers** indicate how one piece of text is connected to another piece of text. They show the connection between what has already been written or said and what is going to be written or said (e.g. and, also, such as, etc).

## SELF-STUDY

**In order to answer the questions below you will have to visit these two sites:**

<http://www.kidshealth.org-1>

<http://www.innerbody.com/image/endoov.html-2>

1. Which site offers the pronunciations of the technical words? Practice them (1)
2. What is the origin of the word ‘pancreas’? (2)
3. What hormones does this gland produce? (1,2)
4. What is the cause of diabetes? (1,2)
5. What gland is located in the lower central part of the brain? (pituitary) (both sites but in different words)
6. Which gland produces the growth hormone? What happens if there is too much of it or too little? (Both sites with varying degrees of detail)
7. Choose one gland to speak about. The table below can help you sort the information out.
8. Say if you used a dictionary when working in the Net. If yes, electronic or paperback? Monolingual or bilingual? Did you find your dictionary helpful? Tell students that they can use on-line both monolingual and bilingual dictionaries, such as Miriam-Webster or МультиТран. They are easy to find with Google.
9. Did your knowledge of the subject help you? How much did you ‘guess’ from the context?

## VOCABULARY FOCUS

Key: 1 – likely; 2 -genes; 3 -circumstances; 4 -evidence; 5 -trait; 6 -heredity; 7 -determine; 8 – affects

## READING

Key: 1 – B; 2 – F; 3 – A; 4 – G; 5 – E; 6 – D

## GRAMMAR FOCUS

### Prepositions

Key: 1 – to; 2 – in; 3 – of; 4 – to; 5 – by; 6 – on;

## SCIENCE IN THE NEWS

Possible translations:

I. According to Ananova, German scientists found a gene responsible for a human passion for cabbage. This discovery was made by scientists of the Research Institute for foodstuffs studies, which is situated in Potsdam, the suburb of Berlin. They established that the presence of one of the hTAS2R38 gene varieties in the human organism makes people sensitive to the lack of propylthiouracil and phenylthiocarbamide. These elements are found in cabbage/Cabbage contains these elements.

“The varieties of only one gene determine eating habits”, – said Wolfgang Meierhoff, the head of the research team. Cabbage is one of the most popular dishes in Germany. There is even a German word in the British slang, Sauerkraut (a German food – sour cabbage), which has become a nickname for Germans.

II. US: liars have a lighter brain

The research conducted by doctors Adrian Rein and Yaling Young and their colleagues of the University of California in Los Angeles showed that pathological liars had certain structural deviations in their brains.

MRI (Magnetic Resonance Imaging) showed that those people had less grey and more white matter in the prefrontal area of the brain than individuals normally had.

It became known from the previous research that the prefrontal part of the brain becomes considerably active when normal people start telling lies. It seems that this area of the brain is connected with acquiring/learning moral behavior.

Researchers believe that the excess of white matter in the brain increases pathological liars' capacity for telling lies and weakens their moral limits/constraints.

**Unit 3**  
**SENSATION AND PERCEPTION**

**Chapter 1**  
**SENSATION**

**WARM-UP**

**Do the crossword below to complete the introductory statement**

This chapter examines sensation, the process that enables us to gather information from numerous sources. Sensation refers to the raw sensory data from the senses of

**Key**

**Across**

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3. **TASTE** – the feeling that is produced by a particular food or drink when you put it in your mouth
5. **HEARING** – the sense which you use to hear sounds
6. **SMELL** – the quality that people and animals recognize by using their nose

**Down**

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1. **SIGHT** – ability to see
2. **PAIN** – the feeling you have when part of your body hurts
4. **BALANCE** – a state in which all your weight is evenly spread so that you do not fall

## **THINK ABOUT IT!**

1. How many colors can we distinguish? Only 150 hues, but gradations of saturation (насыщенность) and brightness within those 150 hues allow us to see more than 300 000 different kinds of colors.

2. Which sense is more sensitive – taste or smell? Smell. According to one estimate, it is about 10 000 times as sensitive as that of taste.

3. Does listening to loud music really damage the ears? Long-term exposure to loud music can harm the ear and cause partial or complete deafness.

Note: You may ask students to find information for these questions on the Internet

## **READING 1**

Pre-reading

## **VOCABULARY FOCUS**

**Match the Russian terms with their English equivalents**

Key: 1-f; 2- h; 3- g; 4-b; 5- c; 6-a; 7-e; 8- d

While-reading

Key: 1 – cornea; 2 –pupil; 3 – iris; 4- iris; 5 –lens; 6- retina; 7 – fovea; 8 –optic nerve; 9 – blind spot



## GRAMMAR FOCUS

### Adverb or adjective?

- With a partner discuss what you would say in the following situations.

*Answers are correct if students suggest adjectives that logically fit the contexts.*

- Check your dictionary for other usages of the verbs above.

*After students checked their dictionaries (this may be done at home), let them share if they had found something they didn't know before.*

## READING 2

### EXPLAINING THE PLACEBO EFFECT

#### 1. Read the text again and answer the following questions:

- Which countries are there references to? In what contexts? *USA – Voice of America is a broadcasting company presenting various programs; Denmark – Danish researchers examined more than 100 studies; Sweden – according to a Swedish study a placebo can reduce the emotional effects of unpleasant experiences; Canada – Canadian researchers published a report; Great Britain – the report was published in the British Medical Journal.*

- ‘Experiences’ is a countable noun in par. 8. What would its meaning be if it were uncountable? *It is knowledge or skill that you gain from doing a job or activity, or the process of doing this.*

- What is the origin of the word ‘placebo’? Use your dictionary to find out how it is related to the verb ‘please’. What is the meaning of the verb in that case? *It means ‘to make someone happy or satisfied’.*

- What do these numbers refer to: 2006, 21, 100, 2, 2001, 35, 1955, 1, 2005?

*This information came out in 2006; researchers from Canada examined 21 studies; Danish researchers had examined more than 100 studies in 2001; studies of new drugs traditionally involve at least two groups of people; pa-*

tients treated with placebo felt better 35% of the time; an influential study was published in 1955; 1 – people in one of those groups; a Swedish study was published in 2005 (last year);

- What can be said about a placebo effect?

*placebo effect: when someone feels better after taking a placebo, even though it has not had any effect on their body. It is studied by specialists from different countries.*

**2. Use the words from the text associated with medicine to complete the mind-map below.**

*Medicine: to treat, a pain treatment, heal, placebo, a placebo effect, to follow doctor's orders, drug=medicine, improvement; to live a healthy life*

## LISTENING

Key

*Feel – experience*

*Important – influential*

*Analyzed – examined*

*Seem – appear*

*Evidence – support for the idea*

Post-listening

**A. Match the words on the right with their opposites.**

Key: 1-e; 2 -g; 3 -d; 4 -f; 5 -c; 6 -a; 7 -b

**B. Complete the sentences below with a suitable word from the columns above.**

Key: 1 – report; 2 – improvement; 3 – increased; 4 – reduce; 5 – active

## VOCABULARY FOCUS

**C. Choose the appropriate word from the above to fill in the gaps. In some cases more than one choice is possible.**

Key 1. emotions 2. sense 3. sense 4. feelings 5. feelings 6. emotions  
7. sense 8. sense

## GRAMMAR FOCUS

Which form of the verb is correct?

### THE SKIN SENSES

Key 1 – C; 2 – A; 3 – C; 4 – B; 5 – B

## LANGUAGE IN USE

**Use the word given in parentheses to form a word that fits in the numbered space. There is an example at the beginning.**

PAIN

Key

1 – explanation; 2 – neurological; 3 – transmission; 4 – existence; 5 – sufferer;  
6 – effective

## Chapter 2

### PERCEPTION

#### WARM-UP

There are several ways in which the brain interprets the complex flow of information from the various senses and creates perceptual experiences that go far beyond what is sensed directly.

#### How do we perceive the world around us?

Key

Students should make the following conclusions about the illusions.

- Faces and vase. Our brain identifies an object by separating it from its background. Depending on which portion of the picture you choose to “see” as the background, the picture will appear as one or the other image.
- Shadow. Only the shadow exists in this illusion. We assume that the letters exist too, so our brain perceives them in the illustration.

(Adapted from

[http://www.pbs.org/wgbh/nova/teachers/activities/22s5\\_vision.html](http://www.pbs.org/wgbh/nova/teachers/activities/22s5_vision.html))

*Note:* It should be stressed that the principles of perceptual organization students have mentioned refer to all the senses not just vision. We tend to distinguish a figure from its background be it a sound against a variety of other sounds, or a smell against other smells, etc.

#### LISTENING

Pre-listening

**Match the vocabulary terms in A with their definitions by writing the letters in the blanks.**

Key: 1 – c (coherent – связный, понятный, ясный); 2 – g (facet – аспект, грань, сторона); 3 – b (distinction – различие, распознавание); 4 – c (cue – намёк, сигнал); 5 – f (blend – смешиваться, незаметно переходить из одно-

го в другое); 6 – a (reversible – реверсивный, поворотный); 7 – d (random – выбранный наугад, случайный)

Tapescript

## **Perceptual Organization**

Early in the 20<sup>th</sup> century, a group of German psychologists, calling themselves *Gestalt psychologists*, set out to discover the principles through which we interpret sensory information. The German word *Gestalt* has no exact English equivalent, but essentially it means “whole”, “form”, or “pattern”. The Gestalt psychologists believed that the brain creates a coherent perceptual experience, which is more than simply the sum of the available sensory information, and that it does so in predictable ways.

In one important facet of the perceptual process, we distinguish **figures** from the **ground** against which they appear. In other words, we perceive some objects as “figures” and other sensory information as “background”.

The figure-ground distinction refers to all our senses, not just vision. We can distinguish a violin solo against the ground of a symphony orchestra, a single voice among cocktail party chatter, and the smell of roses in a florist’s shop. In all these cases, we perceive a figure apart from the ground around it.

Sometimes, however, there are not enough cues in a pattern to permit us to easily distinguish a figure from its ground. This is the principle behind camouflage – to make a figure blend into its background.

Sometimes a figure with clear contours can be perceived in two very different ways because it is unclear which part of the stimulus is the figure and which is the ground. Examples of such reversible figures could be a vase and the silhouettes. Both interpretations are possible but not at the same time.

There are some other important principles of perceptual organization. In every case our perceptual experience goes beyond the raw sensory information available to us. In other words, we use sensory information to create a perception that is more than just the sum of the parts. As creatures searching for meaning, we tend to fill in the missing information, to group various objects together, to

see whole objects and hear meaningful sounds rather than just random bits and pieces of raw sensory data.

## **READING**

**Read the text again and say if the following statements are true or false.**

Key

1. F
2. F
3. T
4. F
5. T
6. F
7. T

## **GRAMMAR FOCUS 1**

**Look at the underlined nouns in each sentence. Circle the noun that is incorrect. Write the correct form of the nouns you have circled.**

Key: 1. correct; 2. learn – learning; 3. familiar – familiarity; 4. motivated – motivation; 5. correct; 6. sticks – stick; 7. correct; 8. ways – way

## **GRAMMAR FOCUS 2**

Structure

Key: 1-c; 2-d; 3- i; 4- a; 5-g; 6 – b; 7 – j; 8- e; 9-f; 10-h

## **CHECK BACK**

Key: 1 – sensation; 2: a – iris; b – fovea; c – cone; d – cornea; e – retina; f – lens; g – rod; h – pupil; 3 a – dark adaptation; 4 b – blind spot; 5 b – releasing endorphins; 6 – perception; 7 – figure-ground; 8: a – closure; b – continuity; c- similarity; d – proximity; 9 a – monaural; 10 – student’s personal response

## **SCIENCE IN THE NEWS**

I. 1T; 2F; 3NM; 4F

II. 1T; 2F; 3F/NM; 4T; 5F

**UNIT 4**  
**STRESS AND HEALTH PSYCHOLOGY**

**Chapter1**

**UNDERSTANDING STRESS**

**WARM-UP**

1. Key: A person experiences a first stress in life when s/he is born.
2. Can you think of some other life events that cause stress?

Any suggestions are welcome.

**READING 1**

Pre-reading

**A. Study the table below. Which word is most often used in it? Why?**

Key: “Change” is most often used. Any change in life, positive or negative, is likely to cause stress.

**B. Give your own definition of stress using the information in the table.**

Ask students to work in pairs or groups of three to develop their definitions then share with the rest of the class.

**C. Match the words on the left with their translations on the right.**

Key: 1 – g; 2 – d; 3 – b; 4 –j; 5 – a; 6 – c; 7 – e; 8 – i; 9 –h; 10 – f

While-reading

Pair work

1. Write questions you expect the text to provide answers to knowing that the title of the reading text is *STRESS*.



Encourage students to ask questions about sources of stress, the ways people can cope with stress, psychologists that studied stress, etc.

Post-reading

**Does the text answer all your questions? If not, discuss them with the group in a plenary.**

Give students some time to prepare for the discussion. Draw their attention to the questions not addressed in the text. Let students discuss them in a plenary.

## READING 2

### FACTORS CAUSING STRESS

**A. Scan the text and match the following headings with the passages they go with.**

Key: A – Change; B – Hassles; C – Pressure; D – Frustration; E – Conflict; F – Self-imposed stress

**B. Read the text again and make a list of the words describing feelings that people experience in stressful situations. Use some of these words to speak about the examples from the text or real life.**

e.g. Anxiety; suffer; annoyance; helpless; unimportant, worthless; guilt; pain; disappointment; give up (your goals); miserable; upset; unhappy

**C. Do the crossword puzzle *Factors that cause stress***

Key

#### Across

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1. **CHANGE** – it occurs as a result of the events that make a person's life different
4. **PRESSURE** – it is a condition when we are forced to intensify your efforts, to perform at a higher level, or to change our behaviour.
5. **CONFLICT** – simultaneous existence of opposite demands, opportunities, needs, or goals

## Down

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- HASSLES** – minor struggles that lead to stress
- FRUSTRATION** – we experience this feeling when there is an obstacle for reaching our goals

### VOCABULARY FOCUS

#### A. Match the following phrasal verbs with their explanations.

Key: 1 – d; 2 – c; 3 – g; 4 – b; 5 – f; 6 – e; 7 – a

#### B. Use an appropriate word from the box to complete each sentence.

Key: 1 – fatigue; 2 – adjustment; 3 – anticipated; 4 – frustration; 5 – draw on; 6 – looking forward to; 7 – lived up to

#### C. Word families

Complete the chart.

Verb	Noun	Adjective
<i>frustrate</i>	frustration	<i>frustrating; frustrated</i>
demand	<i>demand</i>	<i>demanding</i>
<i>behave</i>	behavior	<i>behavioral</i>
<i>depress</i>	<i>depression</i>	depressing
cause	<i>cause</i>	<i>causal</i>
<i>stress</i>	<i>stress</i>	stressful
<i>annoy</i>	annoyance	<i>annoying; annoyed</i>
change	<i>change</i>	<i>changing; changed</i>
<i>irritate</i>	irritation	<i>irritating; irritated</i>
predict	<i>prediction</i>	predictable

### GRAMMAR FOCUS

#### A. Active or passive verb?

Key: 1 – have also been studied; 2 – is closely linked; 3 – experienced; 4 – made; 5 – are depressed; 6 – is not fully understood; 7 – develops; 8 – not be adjudged

**B. In this exercise you have to read a sentence and then write another sentence with the same meaning using an infinitive.**

Key

1 – They appear to be dealing with their problems, ....

2 – Men and women turned out to have been affected equally....

3 – High heart rate and high blood pressure are known to contribute to CHD.

4 – People who got fatigue and felt helpless were likely to develop cancer.

5 – Combat veterans appear to be especially vulnerable to PTSD.

6 – Heavy combat and childhood sexual abuse are most likely to trigger this disorder.

## **Chapter 2**

### **HEALTH PSYCHOLOGY**

#### **READING FOR GIST**

#### **HOW STRESS AFFECTS HEALTH**

**Read the text, entitle each part of it and answer the questions (1-6) after the text.**

Alternative suggestions:

1 – Stages of our reaction to stress

2 – Stress and CHD

3 – Stress and our body systems

4 – PTSD: its causes and consequences

## **LISTENING**

While-listening

**Listen to a part of a lecture about ways to cope with stress at college. Tick those you hear:**

Key

1. Give yourself a mental hug
2. Listen to your favourite music +
3. Pay attention to what you eat
4. Go to the cinema for a change +
5. Take exercise you like +
6. Be prepared for rain
7. Believe in yourself
8. Plan things beforehand +

### **Tapescript**

It is two weeks before finals and you have two papers to write and four exams to study for. You are very worried. To help students cope with the stress that they feel throughout the semester, many colleges and universities are offering stress-reduction workshops, aerobics classes, and counseling. At the University of California at Los Angeles, students are taught to visualize themselves calmly answering difficult test questions. Even if you do not attend special programs, you can teach yourself techniques to help cope with the pressures of college life.

1. Plan ahead. Get things done well before deadlines. Start working on large projects well in advance.
2. Exercise. Do whatever activity you enjoy.
3. Listen to your favorite music, watch a TV show, or go to a movie as a study break.
4. Talk to other people.
5. Meditate or use other relaxation techniques.

One technique that is very effective is to make a list of everything you have to do. Then star the highest priority tasks. Use all available time to work on only those tasks. Free up time by not doing things that are not on the highest priority list. Cross off high-priority tasks as they are done, add new ones as they arrive.

This technique serves various purposes: It removes the fear that you'll forget something important, because everything you can think of is on a single sheet of paper. It helps you realize that things are not as overwhelming as they might seem. It lets you focus your energy on the most important tasks and makes it easy to avoid spending time on less important things. Finally, it assures you that you are doing everything possible to do the most important things in your life.

## Unit 5

### MEMORY

#### Chapter 1

#### TYPES OF MEMORY

#### WARM-UP

**What comes to your mind when you hear the word “memory”?**

Possible suggestions: to learn, to repeat, to lose (loss of) memory, to think, to remind, ability, brain, mind, attention, long-term memory, short-term memory.

#### THINK ABOUT IT!

1. What is the basic difference between the words **mind** and **brain**?

Key: Mind is abstract; brain is physical.

2. Encourage students to speculate on the meanings of these words and expressions.

Key: Mindless – *paying no attention*; brainless – *stupid*; a brainwave – *a good idea*; brainwashing – *forcing a person to change their opinion*; to have something on the brain – *to think constantly about it*; to have a good brain – *to be intelligent*; to be out of one’s mind – *to be mad*; to rack one’s brain – *to try very hard to think of something*; to be in two minds about something – *to be uncertain about what to do, especially when you have to choose between two things*.

• **In the following sentences replace the words in italics with one of the words or expressions given above.**

1. I’ve just had a brainwave.
2. We’re in two minds about whether we should buy that house.
3. You must be out of your mind to give up such a well-paid job.
4. I’ve racked my brains and I still can’t remember where I put it.

## READING

Pre – reading

**Match the words on the left with their translations on the right.**

Key: 1 (h); 2 (c); 3 (g); 4 (i); 5 (d); 6 (a); 7 (j); 8 (b); 9 (k); 10 (f); 11 (e).

### Prediction

**Which of these things do you think will be mentioned in the text?**

Ask students to read all the statements carefully first. Then invite them to express their opinions about why they think the statements they have chosen will be mentioned in the text. Encourage students to use a range of structures used to speculate and hypothesize, e.g. ‘In my opinion, this statement is likely to be mentioned in the text because...’; ‘I think this statement might be used because...’

Key: 1; 3; 5; 6; 8.

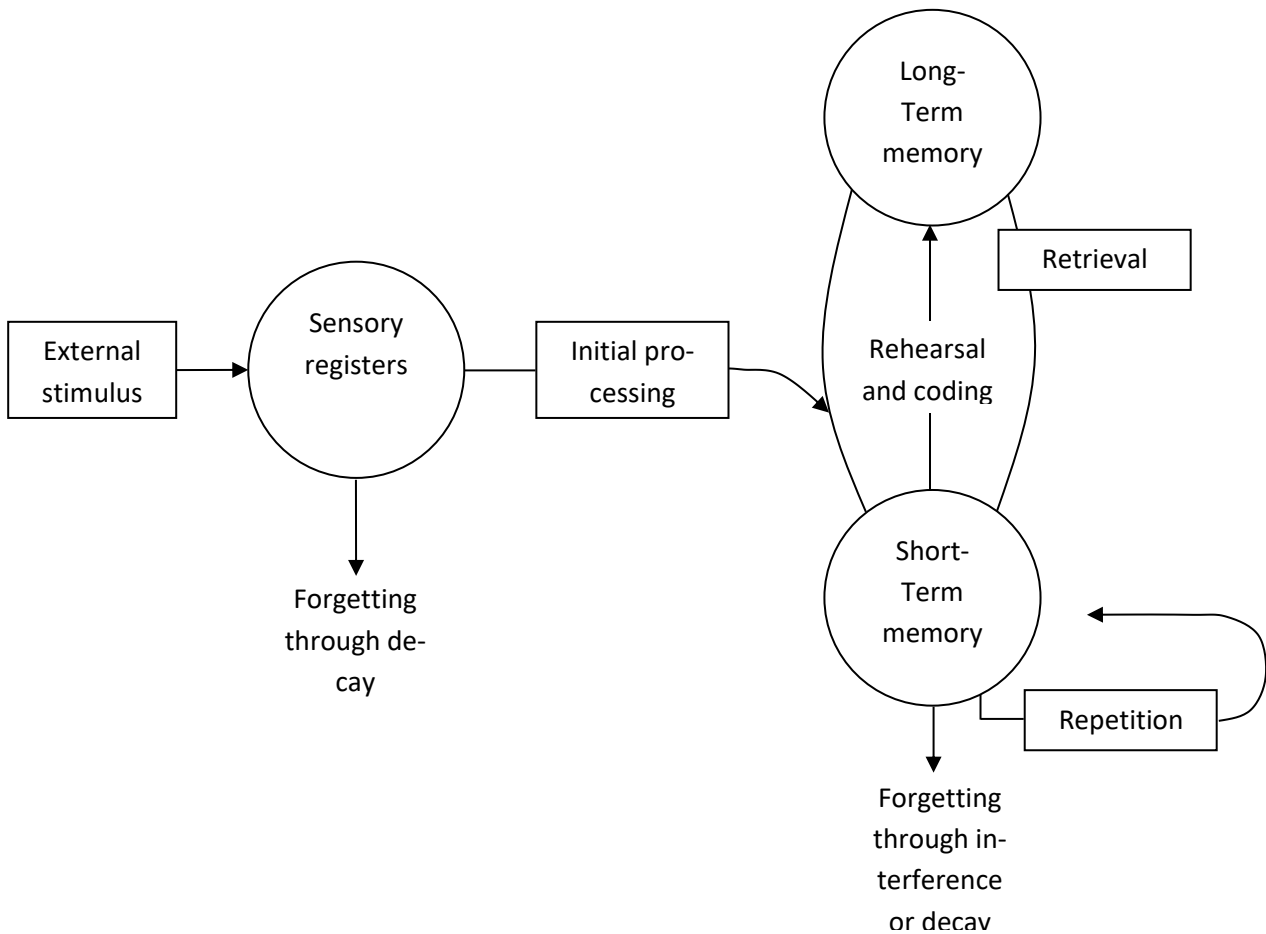
While – reading

### Suggested answers:

- The nature of memory;
- The sequence of information processing (the steps that form the information-processing model);
- Explicit memory;
- Implicit memory.

## Graph Information processing model

Key



Post-reading

**A. Which type of memory is described in each case below? Match the passages (1-4) with the types of memory they illustrate (a-d).**

Key: 1 (b); 2 (c); 3 (a); 4 (d).

**B. Match the following words with their explanations.**

Key: 1 (f); 2 (e); 3 (d); 4 (g); 5 (b); 6 (a); 7 (c); 8 (i); 9 (h).

**C. Use one of the words from task B (1-9) to fill in the gaps in the text below.**

### STORAGE AND RETRIEVAL IN LTM

Key: 1. retrieve; 2. recall; 3. interference; 4. storage; 5. repress; 6. amnesia; 7. schema; 8. comprehend; 9. streamline.



## VOCABULARY FOCUS

- **Look through the text again to find some more collocations to remember.**

Key: recall in vivid detail; when necessary; amounts of time; be good at something; retrieve data

## GRAMMAR FOCUS 1

### Comparing things indifferent ways

Which of the following sentences are correct?

Key: 3, 6, 8, 9.

## GRAMMAR FOCUS 2

### Asking questions.

Here students are supposed to pay attention to both form and meaning. Encourage students to ask intelligent and meaningful questions. These might even be questions that the sentences do not contain answers to.

## READING AND LISTENING

**Read and listen to an extract from the book “A Prayer for Owen Meany” by John Irving. Discuss which type of memory is described in it? What can we compare it with? Give a definition of this type of memory.**

Key: This type of memory is called *flashbulb memory*. It is an experience of remembering vividly a certain event and the incidents surrounding it even after a long time has passed. The entire event is captured and then “printed,” much like a photograph. The “print” is then stored, like a photograph in an album, for long periods. You may decide to photograph your parents. Your parents are the main subject, yet that same picture may capture the arrangement of the living room furniture, a small crack in the back wall, etc. You did not intend to include those things in your picture, but because they were in the background, they, too, were registered on film.

## **SELF-STUDY**

### **Site to explore:**

<http://www.exploratorium.edu/memory/>

### **Explore the anatomy of memory**

#### Key

1. The cortex.
2. Gray matter gets its color from the dark nuclei of the brain's cell bodies.
3. Running from the cell bodies are long white extensions called axons, which make up the brain's white matter.
4. The axon of each brain cell reaches out through the brain to make connections with other brain cells. It is through these connections that billions of brain cells relay information to billions of other brain cells creating a communication network that makes thought possible.
5. Long-term memory.
6. Cerebellum deals with skill memory. Skill memory helps you remember the activities you learn throughout your life.

## Chapter 2

### HOW TO IMPROVE YOUR MEMORY

#### WARM-UP

**You might offer the following twelve words for this game.**

Table, man, station, coffee, shy, bicycle, teacher, bank, hat, children, bed, cinema.

#### LISTENING

##### The SQ3R method

Pre-listening

Key: b; 2) a; 3) c; 4) b; 5) c; 6) a.

##### Tapescript

One of the most successful and most widely used methods of studying written material is the SQ3R method, first developed at Ohio State university. This method teaches you the skills which have made many thousands of students successful.

The **S** stands for SURVEY. Before you even start to read, look quickly at the chapter outline (if any), the headings of the various sections in the chapter, and the chapter summary. This gives you an overview of what you will be reading, and helps you organize the material.

The **Q** stands for QUESTIONS. Before you start to read, translate each heading in the chapter into questions about the text to follow. This process gets you actively involved in thinking about the topic. Reading is greatly enhanced if you are searching for the answers to questions. It is usually helpful to write these questions down.

The first of the three **R**s is for READ. As you read, look for answers to the questions you posed. When you find material which answers these questions, put a mark (x) in the margin next to that material. It is a good idea to wait to

underline lines of the text until after you have read the entire chapter at least once, so you will know what is and what is not most important.

The second **R** is for RECITE. One of the oldest classroom techniques in the world (Aristotle used it) is recitation. Once you finish reading a section, close the book, and recite from memory the answers to your questions and any other major points that you can remember. Try to put what the author is telling you in your own words. If you are not in a situation where you can recite out loud, do it in writing. Just thinking is not enough.

People who do not use recitation usually forget half of what they read in one hour, and another half of the half of what they remembered is forgotten by the end of the day. People who use recitation often remember from 75 to 90 percent of what they studied. By the way, if anyone asks you why you are talking to yourself, tell them that a psychologist recommended it.

The third **R** is for REVIEW. You should review a chapter soon after you have studied it (using the SQ and the first 2Rs). Relate the material to other ideas, to experiences in your life, or to familiar things. You should review the chapter again the day or evening before a test.

The SQ3R method forces you to enter into a dialogue with the text. This interaction improves your chances of recalling the material.

## READING

### Boost Your Memory

By Patricia Hitner

Pre-reading

- **Have you got any stories of forgetfulness, either your own or somebody else's?**

*You might like to start with a story of your own or offer students the stories below.*

Has this happened to you?

You *dash* to the grocery store to buy some coffee. As you walk up and down the aisles, you *pile* a dozen other items into your cart. Back at home, you realize you forgot the one thing you went shopping for?

Or this?

You go to the dentist, the same man who has cleaned your teeth for the past 15 years. When you enter his office, he greets you with a big smile. However, you can't recall whether his name is Bob or Bill.

What's going on here? In all *likelihood*, you have nothing to worry about.

*To dash* – to run; *to pile* – to put; *likelihood* – probability

While-reading

***Read the text and match the following headings with the numbered sections of the text below.***

- Play the name game (2)
- Use mnemonic aids (3)
- Develop routines (5)
- Pay attention (1)
- Recall by category (6)
- Make lists (4)

## SELF-STUDY

Explore this site <http://www.exploratorium.edu/memory/>

### Key

1. Regular exercise of the brain: continuing education, doing crossword puzzles, talking with friends or sharing your feelings about a good movie, writing things in an appointment book, etc.

2. Lily Hearst is 101 years old. Some of the remarkable things about her are: she lives independently, exercises every day, keeps a strict daily routine that begins at 7 o'clock, she does yoga and swimming, gives piano lessons. Her memory is excellent and quite vivid. Her active life style has contributed to her longevity.

3. ALL stands for Alternative Lifelong Learning. Active seniors (elderly people) who could inspire other clients, many of them frail and elderly, are involved. The core of ALL is lecture series; members of ALL share their knowledge, recall past experiences, challenge each other. The social interaction is the most impressive part of ALL meetings.

4. How do we remember a face? The upper part of the face seems to be more important for recognition than the lower part. The hair turns out to be the most important factor, followed by the eyes, then the nose, and then to a lesser extent, the mouth and chin, If you're going to rob a bank, wear a wig, and don't bother with the fake beard.

5. *Decay of memory traces* is one of the reasons for that: there is evidence that information stored in long-term memory fades over time, and this "decay" may explain some distortions in the paintings. *Interference* also contributes to inaccuracies in the paintings: sometimes, new information interferes with our remembering of old information; sometimes it is the other way around, and we remember recent information inaccurately because it gets confused with previous knowledge. The countryside around San Bruno, California, where Franco Magnani lives, remind him of Italy. It's possible that Franco's memory of the landscape around Pontito has been altered by 35 years of looking at the hills of California.

6. Research has demonstrated that memory can be prone to distortions and is occasionally untrustworthy. Your memories are the end product of all you've ever thought and done, filtered through your perceptions and opinions. Who you are is shaped by your memories, and your memories are shaped by who you are.

**These are short answers to the questions. Ask students to provide their answers with examples and stories from the Internet resources they are supposed to explore.**

- **Playing games with memory.**

You might ask students to use this section of the site to play one of the games with their fellow students. It can be done in pairs or groups as a home assignment.

**Unit 6**  
**STATES OF CONSCIOUSNESS**  
**Chapter 1**

**NATURAL VARIATIONS IN CONSCIOUSNESS**

**WARM-UP**

**What is the difference between dreaming and daydreaming?**

Key

*Dream (here)* – a series of pictures or events in a sleeping person’s mind.  
*Daydream* – idle and pleasant thoughts.

**Does daydreaming serve any useful purpose?**

Possible answer: Some psychologists stress the positive value of daydreaming. It helps people go through difficult situations; it may provide relief from everyday reality and reduce tension and aggression.

**READING**

**Natural Variations in Consciousness**

Pre-reading

Key to question 3

- Invite students to think of some reasons for sleepwalking and sleeptalking based on their knowledge or their speculations.
- Sleepyhead
- Sleeper
- Fall asleep
- Sleepless; sleepy
- are asleep

While-reading



### **Are these statements True or False according to the text?**

Key: 1. T; 2. F; 3. F; 4. T; 5. F; 6. F; 7. T; 8. T.

*Read the text and choose the correct answer. Discuss the answers with the partner.*

1) c; 2) b; 3) b; 4) a.

### **VOCABULARY FOCUS**

#### **A. Look in the text and find the word or phrase that means:**

Key: 1. awareness; 2. alert; 3. pivotal; 4. altered; 5. to speculate; 6. to endure; 7. onset; 8. to surge; 9. jet lag; 10. shift

#### **B. Word-building**

Key: 1. consciousness; 2. alertness; 3. awareness; 4. creativity; 5. alteration; 6. hostility; 7. complexity; 8. activity; 9. cognition; 10. reality

#### **C. Fill the gaps using one of these key words from the text:**

Key: 1. daydream; 2. awake; 3. circadian; 4. sleep; 5. pressure; 6. level; 7. consciousness; 8. tension.

### **GRAMMAR FOCUS 1**

#### **Parts of Speech**

Key: 1. stressful; 2. sufferers; 3. disruption; 4. widely; 5. violent; 6. breathing; 7. actually; 8. falling; 9. hereditary; 10. loss; 11. expression; 12. weakness; 13. entry; 14. frightening.

## GRAMMAR FOCUS 2

### Participles

**You might find the grammar reference below useful so that students can refresh their knowledge about the Participles.**

a) -We use **-ing** clauses to say what someone (or something) is doing or was doing at a particular time. E.g. Do you know someone **working** on this project?  
-We can also use **-ing** after **while** or **when**. E.g. Be careful **while conducting** this experiment.

-You can use an **-ing** clause to explain something or to say why someone did something. E.g. **Feeling** frustrated, he could not fall asleep.

b) **-ed** clauses have a passive meaning.

- We can often use them after **when** and **as**. E.g. **As mentioned** above, psychology evolved from philosophy.

**Complete these sentences with verbs in brackets. You have to use participle clauses (-ing and -ed clauses) The first sentence has been done for you.**

### Key

1. observed, dozing
2. working
3. related
4. measured
5. lying
6. floating, falling, followed
7. rolling, being
8. resembling, recorded

## Chapter 2

### ARTIFICIAL ALTERATIONS IN CONSCIOUSNESS

#### WARM-UP

**In 1967 John Lennon and Paul McCartney wrote the song Lucy in the Sky with Diamonds. People associate it with drug use. Look at the title of the song carefully and say why?**

Key

The first letter of each word of the title forms the name of the drug LSD

As a homework, you might want to ask students to find more information about the history of the song and its reference to drugs at:

[http://en.wikipedia.org/wiki/Lucy\\_in\\_the\\_Sky\\_with\\_Diamonds](http://en.wikipedia.org/wiki/Lucy_in_the_Sky_with_Diamonds)

#### READING 1

**Read the text and answer questions (1-5).**

1. What are the functions of the sympathetic nervous system? It prepares the body for energetic activity during an emergency.
2. When was hypnosis first used? In the middle of the eighteenth century in Europe.
3. What other term was once used to describe hypnosis and why? Mesmerism after Anton Mesmer, a Viennese physician.
4. Who was Hypnos? The Greek God of sleep.
5. Can people change or get rid of bad habits through hypnosis? What do psychologists think about it? No agreement on this issue.

**Transfer the information from the text into the chart.**

Artificial alterations in consciousness	How it affects body and mind	Reasons for using it
Meditation	Suppresses the activity of the sympathetic nervous system; lowers the rate of metabolism and reduces heart and respiratory rates	For treating medical problems including drug abuse
Hypnosis	It is a trance-like state in which a person responds readily to suggestions	It eases the pain of certain medical conditions; can help people stop smoking

## READING 2

**Match the terms on the left with their explanations on the right**

Key: a) 4; b) 3; c) 1; d) 2; e) 5.

## LISTENING 1

Key

Categories of Drugs	Examples of Drugs	Effects on Users
Depressants	Alcohol	calms down the nervous system; works like a general anesthetic; inhibits brain centres; responsible for impulsive behaviour.
	Barbiturates	potentially deadly.
	Opiates (opium, morphine, heroin)	Dull the senses, induce euphoria, well-being, relaxation

Categories of Drugs	Examples of Drugs	Effects on Users
Stimulants	Caffeine, nicotine, amphetamines, cocaine.	Stimulate the sympathetic nervous system, produce feelings of optimism and energy.
	Amphetamines	Produce “rushes” of euphoria, depression.
	Cocaine	Causes anxiety, depression, addictive, cravings.
Hallucinogens	LSD, PCP, mescaline.	Distort visual and auditory perception.
	Marijuana.	Produces feeling of euphoria, a sense of well-being, swings in mood (from relaxation to paranoia).

**Note:** Students may not be able to grasp every piece of information. Let them share after the first listening as a whole group.

## LISTENING 2

**Listen again and answer the questions.**

Key

1. Alcohol is responsible for tens of thousands of deaths and contributes to a great deal of crime and domestic violence.
2. Today barbiturates are used for treating epilepsy and arthritis.
3. Caffeine occurs in coffee, tea, and cocoa.
4. The crystalline form of cocaine is called *crack*.
5. Another name for PCP is “*angel dust*.”
6. Hallucinogens occur naturally in mushrooms.

7. LSD is an artificial hallucinogen, synthesized in the laboratory.
8. The most popular drugs among students are alcohol, caffeine, nicotine, and marijuana.

## **Tapescript**

### **Depressants: Alcohol, Barbiturates, the Opiates**

*Depressants* are chemicals that slow down behavior or cognitive processes. *Alcohol*, a depressant, is the intoxicating ingredient in whiskey, beer, wine, and other fermented or distilled liquors. It is responsible for tens of thousands of deaths each year and continues to a great deal of crime and domestic violence. Despite its dangers, alcohol continues to be a popular drug because of its short-time effects. As a depressant, it calms down the nervous system working like a general anesthetic. It is often experienced subjectively as a stimulant because it inhibits centres in the brain that govern critical judgment and impulsive behaviour.

*Barbiturates*, popularly known as "downers," are potentially deadly depressants. They were first used for their sedative and anticonvulsant properties, but today their use is limited to the treatment of such conditions as epilepsy and arthritis.

The *opiates* are highly addictive drugs such as opium, morphine, and heroin that dull the senses and induce feelings of euphoria, well-being, and relaxation. Morphine and heroin are derivatives of opium.

### ***Stimulants: Caffeine, Nicotine, Amphetamines, and Cocaine.***

*Stimulants* are drugs such as caffeine, nicotine, amphetamines, and cocaine that stimulate the sympathetic nervous system and produce feelings of optimism and boundless energy, making the potential for their abuse significant.

Caffeine occurs naturally in coffee, tea, and cocoa; nicotine occurs naturally only in tobacco. Nicotine occurs naturally only in tobacco. Caffeine is considered to be a benign drug, but in large doses it can cause anxiety, insomnia, and other unpleasant conditions. Although nicotine is a stimulant, it acts like a depressant when taken in large doses.

*Amphetamines* are stimulants that initially produce “rushes” of euphoria often followed by sudden “crashes” and, sometimes, depression. *Cocaine* brings on a sense of euphoria by stimulating the sympathetic nervous system, but it can also cause anxiety, depression, and addictive cravings. Its crystalline form – *crack* – is highly addictive.

### ***Hallucinogens and Marijuana***

*Hallucinogens* are any of a number of drugs, such as LSD, phencyclidine (PCP, or “*angel dust*”), and mescaline, that distort visual and auditory perception.

Many of the hallucinogens occur naturally in mushrooms or other fungi. In these forms, they share an ancient history with other consciousness-altering drugs of natural origin. By contrast, *lysergic acid diethylamide (LSD)* is an artificial hallucinogen, synthesized in the laboratory, that produces hallucinations and delusions similar to those that occur in a psychotic state.

Marijuana is a mild hallucinogen that is capable of producing feelings of euphoria, a sense of well-being, and swings in mood from gaiety to relaxation to paranoia. Currently, marijuana is the fourth most popular drug among students, following alcohol, caffeine, and nicotine. Though similar to hallucinogens in certain respects, marijuana is far less potent and its effects on consciousness are far less profound. **CHECK BACK**

Key 1. altered states of; 2. sexual and aggressive; 3. C insomnia, B apnea. A narcolepsy; 4. suggestibility; 5. depressant, stimulant; 6. barbiturates; 7. C crack.

**Unit 7**  
**COGNITION AND LANGUAGE**

**Chapter 1**  
**COGNITIVE PROCESSES**

**WARM-UP**

Visualizing (creating mental pictures)

Imagine you are in a garden in the summer. You are lying on the soft grass with your eyes closed. The sun is shining brightly and you are feeling its pleasant warmth all over your body. Suddenly you hear someone calling your name. You are too lazy to respond, but the voice gets louder and louder. You open your eyes and see nobody around. You realize that you were dreaming. You get up, go to the river and slowly plunge into the water. It feels so refreshing, so good.

**THINK ABOUT IT!**

The answer to the question *Can you solve the riddle below?* is given at the beginning of the text *The Building Blocks of Thought*.

Pre-reading

**1. Match the words in column A with their explanations in column B.**

Key: 1) e; 2) d; 3) b; 4) f; 5) a; 6) c.

While-reading

**2. Read the text again and choose the correct answer.**

Key: 1.C; 2.B; 3.A; 4.B; 5.B; 6.C.



## Post-reading

Invite students to work in two teams and take part in a competition. In task A ask students to make up as many complex words as possible. The team which has given more words is the winner.

**A. Add the following morphemes to the base forms of the words to make up as many complex words as possible.**

*unfashionable*

*ungrammatically*

*reemployment*

*unhelpful*

*dissatisfied*

*uninvited*

*unhealthful*

*sunless*

**B. Combine the words below to form famous phrases.**

In task B the winner is the team which has formed the phrases first.

- The root of all evil.
- One swallow does not make a spring.
- Money has no smell.
- The end justifies the means.
- To eat of the tree of knowledge.

**The Russian equivalents for these phrases:**

- Корень зла
- Одна ласточка не делает весны
- Деньги не пахнут
- Цель оправдывает средства
- Вкушать от древа познания

### C. Option 1

Ask students to explain what these phrases mean.

### Option 2

Ask students to choose one of the phrases and prepare a short presentation on how they understand it, its historical background, ways to use it. Below is the information you can use to help students:

The root of all evil *is that which causes misfortune, sorrow and distress; the source of various vices. According to the bible the root of all evil is the love of money and drunkenness.*

One swallow does not make a spring. *The moral this phrase contains is – don't make hasty conclusions. In Aesop's fable, a young spendthrift (a person who spends money wastefully) who has spent his father's fortune sells in the end his last property – a cloak ( a loose outdoor garment), when he sees one swallow that has returned from the south. But soon afterwards a heavy frost comes again and the young man curses the swallow which has heralded spring.*

The proverb *money has no smell* is ascribed to Vespasian, and emperor of Rome. When the emperor's son Titus reproached his father for having introduced a tax on public lavatories, Vespasian told him to smell the money he was holding, and to see if the smell was bad. On being told that it was not, Vespasian remarked that it had been just paid as the tax on lavatories.

*The end justifies the means* was the motto of the Jesuits, a militant catholic order. It justified any means of attaining a political end, including homicide, fraud, espionage.

*To eat of the tree of knowledge.* The first book of the Old Testament opens with an account of the creation of the world by God and the origin of sin in the serpent's temptation of Adam through his wife. It contains a narrative of the happy life of Adam and Eve in the Garden of Eden. In the garden there grew the tree of the knowledge of good and evil, and God had forbidden man to eat of its fruit. But the serpent persuaded Eve to eat of the fatal fruit, and she gave of it to her husband. As soon as they had tasted it, their eyes were opened, and they knew they were naked: the age of innocence was gone for ever.

In modern speech the words *to eat or taste of the tree of knowledge* mean to acquire knowledge, and are used mostly ironically.

## VOCABULARY FOCUS

**Use prefixes and suffixes to form the negatives of these adjectives and nouns**

- |                   |                   |
|-------------------|-------------------|
| 1. normal         | abnormal          |
| 2. interpretation | misinterpretation |
| 3. meaning        | meaningless       |
| 4. flexible       | inflexible        |
| 5. important      | unimportant       |
| 6. speech         | speechless        |
| 7. solvable       | unsolvable        |
| 8. verbal         | nonverbal         |

### Phrasal verbs

**1. Look at these examples of phrasal verbs from the text Problem Solving below. What do they mean?**

*To figure out* – to think about a problem or situation until you find the answer or understand what has happened; *to carry out* – to put into practice, to accomplish; *to rule out* – to exclude; *to draw on* – to take advantage of; *to give up* – to stop doing something.

**2. In the sentences below fill the gaps using the phrasal verbs from exercise 1 in the correct form.**

- 1) His work *draws* heavily *on* learning theories of the 1980s.
- 2) I got back to bed and tried to *figure out* what had happened.
- 3) We need to *carry out* more research.

- 4) I *gave up* trying to persuade him to continue with his studies.
- 5) The police have *ruled out* suicide.

## GRAMMAR FOCUS 1

### Passive structures

#### 1 Rearrange the words below to make the beginnings of the sentences

##### Key

- a) Words can be combined
- b) If the Hopi had been subjected to air raids,
- c) Thinking is not limited to
- d) When some information must be found quickly,
- e) This method is often used
- f) You may be tempted to solve a problem as it is presented,
- g) The participants were asked whether the letter *r* appears
- h) Concepts can also be used

#### 2 Match the beginnings of the sentences (a-h) with the endings of the sentences (1-8).

1. more frequently as the first or third letter in English words. (g)
2. to form phrases and sentences. (a)
3. but this impulse often leads to poor solutions. (f)
4. when the goal has more information than the givens. (e)
5. we select an *information retrieval* strategy. (d)
6. they would probably have created a word to distinguish a butterfly from a bomber. (b)
7. the words in one's language. (c)
8. to create and organize hierarchies or groups of subordinate categories. (h)

## READING

### LANGUAGE AND THOUGHT

**Read the text and mark the statements (1-6) below as true or false.**

1. Concept is a unit of thought. (T)
2. The word order in sentences is determined by thought. (F)
3. According to Whorf's theory, the language people speak determines the pattern of their behaviour. (F)
4. Some critics of Whorf's theory believe that his hypothesis does not consider social experience. (T)
5. Although language, culture, and thought are not the same, they are inseparable. (T)
6. Not all languages can develop to reflect the growing complexity of life. (F)

## Chapter 2

### PROBLEM SOLVING

#### WARM-UP

#### *COLOR IDIOMS*

#### *Key*

**To feel blue** – to feel miserable and distressed; **to look at the world through rose-colored spectacles** – to have an over-optimistic view of life; **the black sheep of the family** – the disgrace of the family; **to be green** – to be naïve or inexperienced; **to see something in black and white** – to read something in a newspaper or book.

## READING

### PROBLEM SOLVING

**A. Match each problem-solving strategy with its definition.**

\_\_\_\_\_ C \_\_\_\_\_ algorithm  
\_\_\_\_\_ A \_\_\_\_\_ heuristics

\_\_\_\_\_ B \_\_\_\_\_ hill climbing  
\_\_\_\_\_ E \_\_\_\_\_ means-end analysis  
\_\_\_\_\_ D \_\_\_\_\_ working backward

**B. Which method is described in each case below? Match the descriptions (1-5) with the terms (a-d).**

Key:

1) c; 2) c; 3) b; 4) d; 5) a.

*Find the following words and phrases in the text above and choose the best definition for each word or phrase.*

- a) tempt (line 5): **have a desire**
- b) continuous (line 15): **without a break**
- c) a knack (line 16): **the ability to do something skillfully**
- d) rules of thumb (line 28): **practical methods or procedures**
- e) bring within reach (line 29): **come nearer**
- f) discrepancy (line 35): **difference**
- g) stray (line 38): **deviate from a direct course or subject**
- h) vanish (line 38): **disappear**
- i) at their disposal (line 51): **something that they have**
- j) hamper (line 53): **prevent the free movement or activity**
- k) pounding (line 55): **beating heavily**

## **MINDBENDERS**

### **Words from words**

**From each word in the list below try to make as many new words as you can. The first one is started for you. Score one point for each new word you make. The target number of words is given in brackets. Can you beat it?**

- 1. evaluating: vague, lute, value, net, tan, ate, eat, late, let, evil (10)
- 2. availability: ability, lily, lava, vital, lab, bill, lit, bit (8)
- 3. language: age, gauge [ei], lung, lag, gang, leg, nag (7)
- 4. problem: probe, pro, mob, lobe, rob, bore (6)

## THINK AND DISCUSS

Key

1. Step1: cut one piece of chain into three open links
2. Step2: use three links to join three remaining pieces of chain
3. Students are giving their personal responses.
4. You could use “hill climbing” heuristic that moves you closer to your goal with each decision.

## LISTENING

### CREATIVE PROBLEM SOLVING

**Read the incomplete summary of the lecture on creative problem solving and think about what kinds of words or phrases might go in the blanks.**

Key

Several strategies help us analyze and solve problems by looking at them from another (1) angle. Many problems rely on the use of (2) flexible and original thinking. (3) Convergent thinking is appropriate for problems that have one correct solution, whereas problems that have no single correct solution call for creativity – (4) divergent thinking, thinking that is original, inventive, and flexible. Taking a rest from a problem may allow you to discover a fresh approach through (5) insight. The technique of (6) brainstorming requires an individual or group to (7) collect numerous ideas and evaluate them after all possible ideas have been collected.

### *Tapescript*

#### *Creative Problem Solving*

Many problems rely more on the use of flexible and original thinking. For example, how many unusual uses can you think of for a brick? It's easy to think of a few good uses but quite another task to come up with 50 or 60 ones. Psychologists sometimes refer to this type of thinking as *divergent thinking*, in contrast to *convergent thinking*. A problem requiring convergent thinking has only

one solution or a few – for example, a math problem. We use convergent thinking when a problem has a known solution. By contrast, problems that have no single correct solution and that require a flexible approach call for divergent thinking. In recent years, schools of business and engineering have begun to stress the development of divergent thinking skills in their classes to encourage their students to use more creative and inventive problem-solving strategies.

Solutions to many problems rely on *insight*, they come “out of the blue.” As if by magic, the solution suddenly “*pops into your head*,” often after you’ve stopped working on the problem for a while. Therefore, if you cannot arrive at a solution to a problem after careful preparation, stop thinking about the problem and return to it later, approaching it from a new angle. Taking a rest from a problem may allow you to discover a fresh approach.

Another creative strategy is to *redefine* the problem. Recall the example of the business that was losing money (Chapter 1, text 2, line 7), the only solution to which seemed to be cost cutting. Once we included increasing income in the range of solutions, we presented the business with a new set of possibilities.

Ask yourself, “What is the real problem here? Can the problem be interpreted in other ways?” By redefining the problem, you may find that you have opened up new ways to creative solutions. Here we use the technique called brainstorming: When solving a problem, generate lots of ideas. Then you should review and evaluate them.

Finally, some evidence suggests that people become more creative when they work in teams with other creative people.

Different cultures approach creative thinking in different ways. Americans stress self-reliance in problem solving, allowing children to explore a situation and deemphasizing successful accomplishment of a task. Independence and originality are the two qualities valued in their culture. The Chinese approach is to assist the child gently but firmly in successful completion of the task, *eliminating* possible frustration while *paving the way* to learning more complex tasks later on.



## READING

### DECISION MAKING

**1. You are going to read the text about decision making. The names of the approaches have been removed from the text. Choose from the list A-E the one that fits each gap (1-5).**

Key

- A. noncompesatory model-2
- B. representativeness-3
- C. conformation bias-5
- D. compensatory model – 1
- E. availability-4

**2. Using the information from the text about different approaches to decision making, fill in the gaps in the sentences below.**

Key

- 1. compensatory
- 2. noncompensatory
- 3. b
- 4. confirmation bias

**3. You must decide between an inexpensive, noisy apartment with neighbors who are a nuisance, and a quieter, more expensive apartment with nice neighbors. How would you go about (do a task) making your decision using a compensatory model?**

Note:

The compensatory model of decision making analyses if the attractive features of something you are deciding on can compensate for the unattractive features.

**It is advisable to ask students to think of other attractive features that either of the apartments might have.**

## **CHECK BACK**

### Key

1. cognition
2. words, images, and concepts
3. a
4. T
5. d
6. set
7. functional fixedness
8. phonemes, morphemes, sentences

## Unit 8

### LEARNING

#### Chapter 1

#### KINDS OF LEARNING

#### WARM-UP

#### English sayings and proverbs about learning and knowledge

Key: 2) h; 3) b; 4) a; 5) c; 6) g; 7) f; 8) d.

Which proverbs have similar meaning? (3, 8)

Which proverbs are contradictory in meaning? (5, 7)

#### The Russian equivalents for these proverbs:

1. Ничего не деляя, мы учимся дурным делам. Праздность – мать всех пороков.
2. Век живи – век учись.
3. Прежде чем прыгать, научись ползать. Смысл: все достигается постепенно. Не все сразу.
4. Учись мудрости на чужих ошибках.
5. Недостаточное знание – вещь опасная. Всякое полужнание хуже незнания.
6. Кто никогда не пробовал горького, не знает, что такое сладкое.
7. От чрезмерного знания голова лысеет. Много будешь знать – скоро состаришься.
8. Сначала научись говорить, а петь потом будешь. Азбуки не знает, а читать садится. Не все сразу.

## THINK ABOUT IT!

- Is learning and studying the same thing?

No, they are different. *Learning* is gaining knowledge of a subject or skill, by experience, by studying it, or by being taught; *studying* is spending time reading, going to classes etc in order to learn about a subject:

- I've been studying English for 5 years.
- The student will learn from experience about the importance of planning.

## READING

### KINDS OF LEARNING

#### Pre-reading

**1. You are going to read a text about learning. First check the meaning of the words in the box in your dictionary or with your teacher. Pay attention to the prepositions the words go with if any. Which words do the adverbs go with?**

to equate	relatively	to encompass
to elicit	to emit	to acquire
punishment	conducive	
directly	scary	

Draw students' attention to the fact that it is necessary to memorize word combinations rather than separate words. Encourage them to create word combinations of their own bearing in mind that these combinations may be different in Russian.

**Possible answers:** to equate smth with smth (отождествлять); relatively easy/new, etc; to encompass smth; to elicit smth from; to emit smth; to acquire smth; a punishment for/by/as (a) punishment (e.g. the punishment for treason; punishment by whipping; I was sent to bed as a punishment.); conducive to; acquire directly from experience/speak directly to smb/experience directly, etc; a scary experience/moment, etc

#### While-reading

Read the text carefully and fill in the graph on the kinds of learning. Then check your answers with a partner.

Key

Forms of Learning:	Basic	Complex
Their names:	Conditioning	Cognitive learning
Division into types:	Classical conditioning and operant conditioning	Insight and observational learning
Examples:	See examples of both types in par 2 of text	See examples of both types in par 4
Common things for both kinds:	Both kinds of learning are our survival strategies	

## VOCABULARY FOCUS

### Word-building

**A. Underline the words that have the same noun and verb forms.**

define	<u>dance</u>
<u>experience</u>	<u>study</u> (2)
<u>practice</u>	depend
punish	<u>reward</u>
<u>cause</u>	imitate
<u>change</u>	<u>command</u>
teach	learn
<u>puzzle</u>	solve

**B. Complete the table**

Verb	Noun
1. equate	equation
2. define	definition

3. behave	behaviour
4. acquire	acquisition
5. stimulate	stimulation
6. respond	response
7. focus	focus
8. select	selection
9. emit	emission
10. survive	survival
11. cognate	cognition

**C. In the text *Kinds of Learning* find the following**

Key: 1. permanent; 2. to turn off; 3. acquisition; 4. stimuli; 5. to precede; 6. anxious 7. essential; 8. wisdom.

**GRAMMAR FOCUS**

Emphatic construction: It is... that

**1. Make the following sentences emphatic using these sentences as an example.**

Key

- It is through cognitive processes that we learn which events are safe and which are dangerous.
- It is cognitive learning that gives us access to the wisdom of people.
- It is classical conditioning that serves as a starting point for examining what learning is.
- It is punishment that can control behaviour.
- It is this kind of therapy that provides an illustration of stimulus generalization.

**2. Say it in English**

- It is by the application of these principles that we can become better students.
- It is he that his son's future depends on.

- It is only recently that analytical psychology has become a subject matter to be studied from a historical perspective.
- It was for that research that the scientist received a Nobel Prize.

## **ENGLISH IN USE**

- **Collocations**

Key: (1) B; (2) C; (3) A; (4) B; (5) C; (6) B; (7) A; (8) C.

## **READING AND DISCUSSION**

### **COGNITIVE LEARNING**

#### **Read the text interrupted with questions and have a discussion.**

This task is designed to understand details and infer (to reach an opinion from facts or reasoning) from details. Before students start to read let them think and answer the questions posed at the beginning of the text. Then they can proceed with their reading and answering the questions after each passage. Some answers must be found in the text, whereas there are questions that need speculation and the expression of opinions.

For example, students look for the answer to the question “What did Tolman’s experiments show?” in the text. However, the answer to the question “Why do you think it is called latent?” is not given in the text. Therefore, students are supposed to express their opinions here.

## Chapter 2

### STUDY SKILLS

#### WARM-UP

**What comes to your mind when you hear the word “learning”?**

Possible suggestions:

To read, to instruct, to study, to check, to plan, to memorize, to repeat, to rehearse, to learn by heart, to understand, to take/make notes, tasks, exercises, project, easy, difficult, informative, individual study project (реферат), group work, etc.

#### LISTENING

RIGHT BRAIN vs. LEFT BRAIN

Pre-listening

Key: 1) e; 2) d; 3) h; 4) j; 5) b; 6) i; 7) c; 8) f; 9) g; 10) a.

#### LISTENING 1

- *Listen and check your answers.*

#### LISTENING 2

Key

(1) control; (2) Logical; (3) Rational; (4) Objective; (5) Intuitive; (6) Subjective; (7) wholes; (8) preference; (9) accuracy; (10) feeling; (11) creativity; (12) scholastic/ academic; (13) connect; (14) role plying; (15) assessment/evaluation.

#### Tapescript

RIGHT BRAIN vs. LEFT BRAIN



## Definition

The theory of the structure of the mind suggests that the two different sides of the brain control two different “modes” of thinking. It also suggests that each of us prefers one mode over the other.

## Discussion

Experimentation has shown that the two different sides of the brain, or hemispheres, of the brain are responsible for different manners of thinking. The following table illustrates the differences between left-brain and right-brain thinking:

<b>Left Brain</b>	<b>Right Brain</b>
Logical	Random
Sequential	Intuitive
Rational	Holistic
Analytical	Synthesizing
Objective	Subjective
Looks at parts	Looks at wholes

Most individuals have a distinct preference for one of these styles of thinking. Some, however, are more whole-brained and equally adept at both modes. In general, schools tend to favour left-brain modes of thinking, downplaying the right-brain ones. Left-brain scholastic subjects focus on logical thinking, analysis, and accuracy. Right-brained subjects, on the other hand, focus on aesthetics, feeling, and creativity.

## How Right Brain vs. Left-Brain Thinking Impacts Learning

*Curriculum* – In order to be more “whole-brained” in their orientations, schools need to give equal weight to the arts, creativity, and the skills of imagination and synthesis.

*Instruction* – To foster a more whole-brained scholastic experience, teachers should use instruction techniques that connect with both sides of the brain. They can increase their classroom’s right-brain learning activities by incorpo-

rating more patterning, metaphores, analogies, role playing, visuals, and movement into their reading, calculation, and analytical activities.

*Assessment* – For a more accurate whole-brained evaluation of student learning, educators must develop new forms of assessnent that honour right-brained talents and skills.

## **READING**

### Pre-reading

- **You are going to read an article called How to be a Better Student. With a partner, make a list of the pieces of advice you expect to read.**

Example: It is helpful to keep a daily checklist.

Possible suggestions:

You should..., it is good to..., it is always better to..., try to..., you must...

### While-reading

#### **A. Read the article and entitle the passages (1-7).**

Possible suggestions:

1. The oldest Definition of Education
2. Formulating the Plan
3. Goals for the Semester
4. Goals for the Week
5. Goals for Today
6. Attending Classes
7. Benefiting from Lectures

**B. Find more expressions in the text which could go in the box below.**

***Giving advice and making recommendations***

You are advised (not) to...

Possible answers:

If you can ...(par3 )

You can help yourself ....(par3)

Please be sure... (par 3)

You must allow... (par 4)

Please remember...(par 4)

It is also helpful ... (par 5)

Use plenty of... (par 7)

**GRAMMAR FOCUS**

**Phrasal verbs**

**Look at these examples of phrasal verbs from the article. What do they mean?**

Key

To sort out – *to select from others*

To make up – *to form*

To check off – *to eliminate, to get rid of*

To write out- *to write in full or in a finished form*

To go back over – *to return and look through*

To pay off – *to pay in full*

***Gerunds and Infinitives***

Let students recall the rules for the use of gerunds and infinitives. You can use the sentences below as an exercise for this purpose in which students are supposed to fill in the gaps with either *gerund* or *infinitive*.

1. You always use the \_\_\_\_\_ or a noun after a preposition.
2. When the word **to** is used as a preposition as in **be used to, look forward to, object to**, it is followed by a(n) \_\_\_\_\_.
3. The \_\_\_\_\_ can be used to express purpose. For example, you might use one to give an answer to the question **Why are you studying English?**
4. Phrases like **It impossible/easy/nice for Mary/me/the children** are usually followed by the \_\_\_\_\_.
5. **It's (not) worth/There's no point/It's no use** are usually followed by the \_\_\_\_\_.
6. In modern English it is more usual to use a(n) \_\_\_\_\_ as a subject of a sentence.

Key: 1 – gerund; 2 – gerund; 3 – infinitive; 4 – infinitive; 5 – gerund; 6 – gerund .

Note: In modern English using the infinitive as a subject of a sentence is unusual. It is better to start with the 'preparatory subject' *it + adjective/noun* and then put the infinitive. E.g. *It's easy to make mistakes. It's my ambition to study analytical psychology.*

## READING AND DISCUSSION

### Your Preferred Learning Style

**Read the text and identify your learning style. Share the results with a partner (partners). Explain why you think you belong to a certain style (styles).**

**You might like to offer students to list the discoveries they have made about themselves.**

## CONDUCTING A SURVEY

### Step One

*Before doing the task, ask students what they understand by a learning strategy. Any suggestions are accepted unless they distort the true meaning of it. In modern pedagogy, a learning strategy is a measure that the learner actively and consciously employs to facilitate or advance learning. (e. g. establishing a purpose for reading, taking steps to repair faulty comprehension, pre-viewing a text).*

### EXTRA LISTENING ACTIVITIES

**1. Watch and listen to the Ted talk “How to make stress your friend” presented by Kelly McGonigal. The length of the video is 14 minutes. Depending on the students’ proficiency level it is advisable to divide the text of the presentation into several parts.**

**Here is the link for the video.**

[https://www.ted.com/talks/kelly\\_mcgonigal\\_how\\_to\\_make\\_stress\\_your\\_friend](https://www.ted.com/talks/kelly_mcgonigal_how_to_make_stress_your_friend)

**Answer the question: What is the presenter’s vision of the positive side of stress? Do you agree with her point of view? Use the transcript if necessary.**

**Optional activities: 1. note-taking (Take notes of the most interesting facts of the talk). 2. Identify and make up a glossary of the key terms. 3. Translate some passages from the presentation.**

I have a confession to make. But first, I want you to make a little confession to me. In the past year, I want you to just raise your hand if you've experienced relatively little stress. Anyone?

How about a moderate amount of stress?

Who has experienced a lot of stress? Yeah. Me too.

But that is not my confession. My confession is this: I am a health psychologist, and my mission is to help people be happier and healthier. But I fear that something I've been teaching for the last 10 years is doing more harm than good, and it has to do with stress. For years I've been telling people, stress makes you sick. It increases the risk of everything from the common cold to cardiovascular disease. Basically, I've turned stress into the enemy. But I have changed my mind about stress, and today, I want to change yours.

Let me start with the study that made me rethink my whole approach to stress. This study tracked 30,000 adults in the United States for eight years, and they started by asking people, "How much stress have you experienced in the last year?" They al-

so asked, "Do you believe that stress is harmful for your health?" And then they used public death records to find out who died.

Okay. Some bad news first. People who experienced a lot of stress in the previous year had a 43 percent increased risk of dying. But that was only true for the people who also believed that stress is harmful for your health.

People who experienced a lot of stress but did not view stress as harmful were no more likely to die. In fact, they had the lowest risk of dying of anyone in the study, including people who had relatively little stress.

Now the researchers estimated that over the eight years they were tracking deaths, 182,000 Americans died prematurely, not from stress, but from the belief that stress is bad for you. That is over 20,000 deaths a year. Now, if that estimate is correct, that would make believing stress is bad for you the 15th largest cause of death in the United States last year, killing more people than skin cancer, HIV/AIDS and homicide.

You can see why this study freaked me out. Here I've been spending so much energy telling people stress is bad for your health.

So this study got me wondering: Can changing how you think about stress make you healthier? And here the science says yes. When you change your mind about stress, you can change your body's response to stress.

Now to explain how this works, I want you all to pretend that you are participants in a study designed to stress you out. It's called the social stress test. You come into the laboratory, and you're told you have to give a five-minute impromptu speech on your personal weaknesses to a panel of expert evaluators sitting right in front of you, and to make sure you feel the pressure, there are bright lights and a camera in your face, kind of like this. And the evaluators have been trained to give you discouraging, non-verbal feedback, like this.

Now that you're sufficiently demoralized, time for part two: a math test. And unbeknownst to you, the experimenter has been trained to harass you during it. Now we're going to all do this together. It's going to be fun. For me.

I want you all to count backwards from 996 in increments of seven. You're going to do this out loud, as fast as you can, starting with 996. Go!

Go faster. Faster please. You're going too slow.

Stop. Stop, stop, stop. That guy made a mistake. We are going to have to start all over again. (Laughter)

You're not very good at this, are you? Okay, so you get the idea. If you were actually in this study, you'd probably be a little stressed out. Your heart might be pounding, you might be breathing faster, maybe breaking out into a sweat. And normally, we interpret these physical changes as anxiety or signs that we aren't coping very well with the pressure.

But what if you viewed them instead as signs that your body was energized, was preparing you to meet this challenge? Now that is exactly what participants were told in a study conducted at Harvard University. Before they went through the social stress test, they were taught to rethink their stress response as helpful. That pounding heart is preparing you for action. If you're breathing faster, it's no problem. It's getting more oxygen to your brain. And participants who learned to view the stress response as helpful for their performance, well, they were less stressed out, less anxious, more confident, but the most fascinating finding to me was how their physical stress response changed.

Now, in a typical stress response, your heart rate goes up, and your blood vessels constrict like this. And this is one of the reasons that chronic stress is sometimes associated with cardiovascular disease. It's not really healthy to be in this state all the time. But in the study, when participants viewed their stress response as helpful, their blood vessels stayed relaxed like this. Their heart was still pounding, but this is a much healthier cardiovascular profile. It actually looks a lot like what happens in moments of joy and courage. Over a lifetime of stressful experiences, this one biological change could be the difference between a stress-induced heart attack at age 50 and living well into your 90s. And this is really what the new science of stress reveals, that how you think about stress matters.

So my goal as a health psychologist has changed. I no longer want to get rid of your stress. I want to make you better at stress. And we just did a little intervention. If you raised your hand and said you'd had a lot of stress in the last year, we could have saved your life, because hopefully the next time your heart is pounding from stress, you're going to remember this talk and you're going to think to yourself, this is my body helping me rise to this challenge. And when you view stress in that way, your body believes you, and your stress response becomes healthier.

Now I said I have over a decade of demonizing stress to redeem myself from, so we are going to do one more intervention. I want to tell you about one of the most under-appreciated aspects of the stress response, and the idea is this: Stress makes you social.

To understand this side of stress, we need to talk about a hormone, oxytocin, and I know oxytocin has already gotten as much hype as a hormone can get. It even has its own cute nickname, the cuddle hormone, because it's released when you hug someone. But this is a very small part of what oxytocin is involved in.

Oxytocin is a neuro-hormone. It fine-tunes your brain's social instincts. It primes you to do things that strengthen close relationships. Oxytocin makes you crave physical contact with your friends and family. It enhances your empathy. It even makes you more willing to help and support the people you care about. Some people have even suggested we should snort oxytocin... to become more compassion-

ate and caring. But here's what most people don't understand about oxytocin. It's a stress hormone. Your pituitary gland pumps this stuff out as part of the stress response. It's as much a part of your stress response as the adrenaline that makes your heart pound. And when oxytocin is released in the stress response, it is motivating you to seek support. Your biological stress response is nudging you to tell someone how you feel, instead of bottling it up. Your stress response wants to make sure you notice when someone else in your life is struggling so that you can support each other. When life is difficult, your stress response wants you to be surrounded by people who care about you.

Okay, so how is knowing this side of stress going to make you healthier? Well, oxytocin doesn't only act on your brain. It also acts on your body, and one of its main roles in your body is to protect your cardiovascular system from the effects of stress. It's a natural anti-inflammatory. It also helps your blood vessels stay relaxed during stress. But my favorite effect on the body is actually on the heart. Your heart has receptors for this hormone, and oxytocin helps heart cells regenerate and heal from any stress-induced damage. This stress hormone strengthens your heart.

And the cool thing is that all of these physical benefits of oxytocin are enhanced by social contact and social support. So when you reach out to others under stress, either to seek support or to help someone else, you release more of this hormone, your stress response becomes healthier, and you actually recover faster from stress. I find this amazing, that your stress response has a built-in mechanism for stress resilience, and that mechanism is human connection.

I want to finish by telling you about one more study. And listen up, because this study could also save a life. This study tracked about 1,000 adults in the United States, and they ranged in age from 34 to 93, and they started the study by asking, "How much stress have you experienced in the last year?" They also asked, "How much time have you spent helping out friends, neighbors, people in your community?" And then they used public records for the next five years to find out who died.

Okay, so the bad news first: For every major stressful life experience, like financial difficulties or family crisis, that increased the risk of dying by 30 percent. But -- and I hope you are expecting a "but" by now -- but that wasn't true for everyone. People who spent time caring for others showed absolutely no stress-related increase in dying. Zero. Caring created resilience.

And so we see once again that the harmful effects of stress on your health are not inevitable. How you think and how you act can transform your experience of stress. When you choose to view your stress response as helpful, you create the biology of courage. And when you choose to connect with others under stress, you can create resilience. Now I wouldn't necessarily ask for more stressful experiences in my life, but this science has given me a whole new appreciation for stress. Stress gives us access to our hearts. The compassionate heart that finds joy and meaning in connect-



ing with others, and yes, your pounding physical heart, working so hard to give you strength and energy. And when you choose to view stress in this way, you're not just getting better at stress, you're actually making a pretty profound statement. You're saying that you can trust yourself to handle life's challenges. And you're remembering that you don't have to face them alone.

Thank you.

**Chris Anderson:** This is kind of amazing, what you're telling us. It seems amazing to me that a belief about stress can make so much difference to someone's life expectancy. How would that extend to advice, like, if someone is making a lifestyle choice between, say, a stressful job and a non-stressful job, does it matter which way they go? It's equally wise to go for the stressful job so long as you believe that you can handle it, in some sense?

**KM:** Yeah, and one thing we know for certain is that chasing meaning is better for your health than trying to avoid discomfort. And so I would say that's really the best way to make decisions, is go after what it is that creates meaning in your life and then trust yourself to handle the stress that follows.

CA: Thank you so much, Kelly. It's pretty cool.

**2. Watch and listen to the Ted talk “8 Secrets of Success” presented by Richard St. John (2005). The length of the video is 3.3 minutes. Here is the link for the video.**

[https://www.ted.com/talks/richard\\_st\\_john\\_8\\_secrets\\_of\\_success](https://www.ted.com/talks/richard_st_john_8_secrets_of_success)

**What eight secrets of success is the presenter talking about? Would you like to add any other secrets of success that occur to you?**

This is really a two-hour presentation I give to high school students, cut down to three minutes. And it all started one day on a plane, on my way to TED, seven years ago. And in the seat next to me was a high school student, a teenager, and she came from a really poor family. And she wanted to make something of her life, and she asked me a simple little question. She said, "What leads to success?" And I felt really badly, because I couldn't give her a good answer.

So I get off the plane, and I come to TED. And I think, jeez, I'm in the middle of a room of successful people! So why don't I ask them what helped them succeed, and pass it on to kids? So here we are, seven years, 500 interviews later, and I'm going to tell you what really leads to success and makes TEDsters tick.

And the first thing is passion. Freeman Thomas says, "I'm driven by my passion." TEDsters do it for love; they don't do it for money.

Carol Coletta says, "I would pay someone to do what I do." And the interesting thing is: if you do it for love, the money comes anyway.

Work! Rupert Murdoch said to me, "It's all hard work. Nothing comes easily. But I have a lot of fun." Did he say fun? Rupert? Yes!

TEDsters do have fun working. And they work hard. I figured, they're not workaholics. They're workafrolics.

Good!

Alex Garden says, "To be successful, put your nose down in something and get damn good at it." There's no magic; it's practice, practice, practice.

And it's focus. Norman Jewison said to me, "I think it all has to do with focusing yourself on one thing."

And push! David Gallo says, "Push yourself. Physically, mentally, you've got to push, push, push." You've got to push through shyness and self-doubt.

Goldie Hawn says, "I always had self-doubts. I wasn't good enough; I wasn't smart enough. I didn't think I'd make it." Now it's not always easy to push yourself, and that's why they invented mothers. Frank Gehry said to me, "My mother pushed me."

Serve! Sherwin Nuland says, "It was a privilege to serve as a doctor."

A lot of kids want to be millionaires. The first thing I say is: "OK, well you can't serve yourself; you've got to serve others something of value. Because that's the way people really get rich."

Ideas! TEDster Bill Gates says, "I had an idea: founding the first micro-computer software company." I'd say it was a pretty good idea. And there's no magic to creativity in coming up with ideas -- it's just doing some very simple things. And I give lots of evidence.

Persist! Joe Kraus says, "Persistence is the number one reason for our success." You've got to persist through failure. You've got to persist through crap! Which of course means "Criticism, Rejection, Assholes and Pressure."

So, the answer to this question is simple: Pay 4,000 bucks and come to TED.

Or failing that, do the eight things -- and trust me, these are the big eight things that lead to success.

Thank you TEDsters for all your interviews!

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