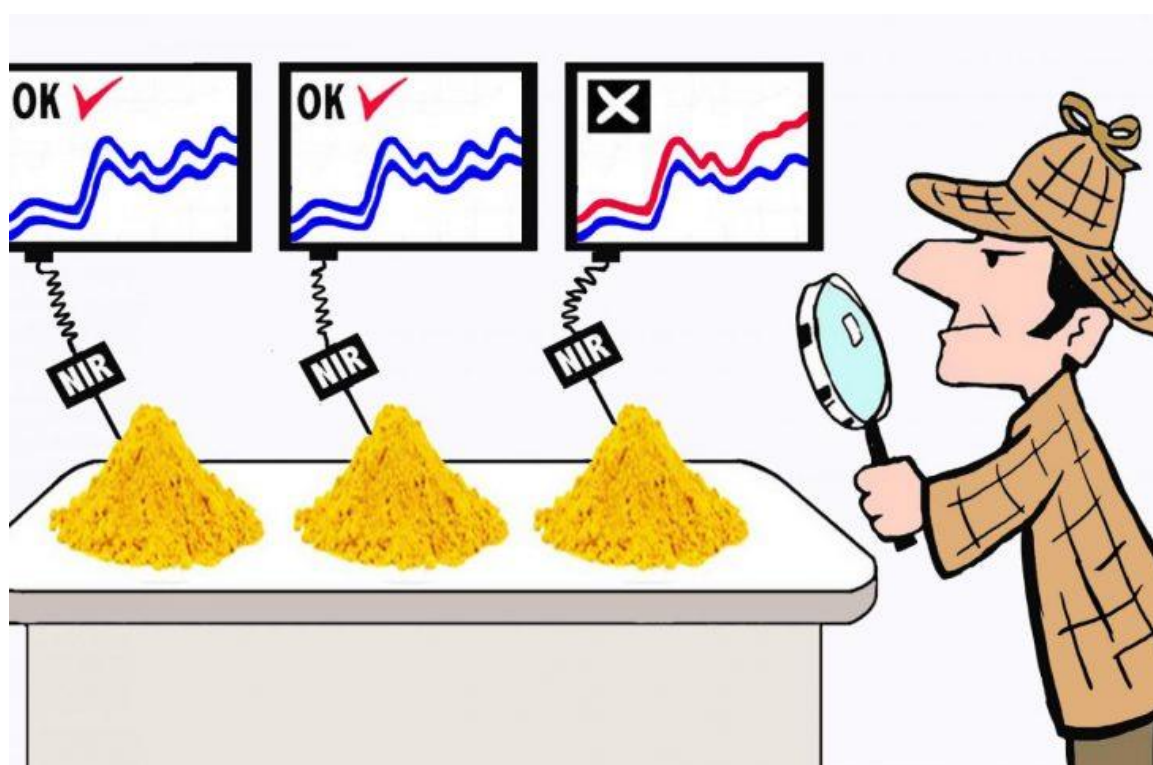


S. Yu. Dmitriyeva, E. M. Karpuzova

ENGLISH

for technologists and veterinarians



Penza 2017

**МИНИСТЕРСТВО СЕЛЬСКОГО ХОЗЯЙСТВА
РОССИЙСКОЙ ФЕДЕРАЦИИ**

ФГБОУ ВО ПЕНЗЕНСКИЙ ГАУ

Кафедра «Философия, история и иностранные языки»

С.Ю. Дмитриева, Э.М. Карпузова

**ENGLISH
For technologists and veterinarians
(Английский язык для технологов и ветеринаров)**

Учебное пособие

для студентов бакалавриата и специалитета, обучающихся по направлениям подготовки: 35.03.07 Технология производства и переработки сельскохозяйственной продукции; 36.03.02 Зоотехния; 38.03.01 Ветеринарно-санитарная экспертиза; 36.05.01 Ветеринария

Пенза, 2017

УДК 802.0(075)
ББК 81.2Англ. (я7)
Д 53

Рецензент – Т.В. Шишкина, кандидат сельскохозяйственных наук, доцент кафедры «Производство продукции животноводства».

Дмитриева, Светлана Юрьевна
Английский язык для технологов и ветеринаров: учебное пособие / С. Ю. Дмитриева, Э. М. Карпузова. – Пенза: РИО ПГАУ, 2017. – 120 с.

Учебное пособие подготовлено в соответствии с рабочей программой дисциплины «Профильный иностранный язык», разработанной для студентов технологического факультета, обучающихся по направлениям подготовки: 35.03.07 Технология производства и переработки сельскохозяйственной продукции; 36.03.02 Зоотехния; 38.03.01 Ветеринарно-санитарная экспертиза; 36.05.01 Ветеринария

© **ФГБОУ ВО**
Пензенский ГАУ, 2017
© **С.Ю. Дмитриева,**
Э.М. Карпузова, 2017

Unit I

Career in agriculture

Dialogue

- What do you think about career in agriculture?
- What are you interested in?
- Well ... My father is an agricultural engineer and my mother is a food technologist. Maybe I'll try myself in food industry. I haven't made up my mind yet.
- The matter is agriculture is much more than the production, marketing, and distribution of food. People involved in the agricultural industry also work to produce raw materials for clothing, shelter, energy, and medicine, as well as to provide opportunities for recreation.
- You're right, there are lots of options. Farms and ranches are only two types of places where agricultural production occurs. Dairies, fish hatcheries, nurseries, greenhouse facilities, forests, and rangelands are also areas where plants and animals are raised for food and other agricultural products.
- Consequently, there are also all kinds of problems with making choice and putting all the ideas into practice.
- What do you mean by that?
- Lots of things: how to choose the right career for you, how to get accepted by a university where you can go to study your specific subject and finally where you can work after you finish your course.
- You're right. The matter is on the one hand, this sphere is in great demand.
- And on the other...?
- Unfortunately, it is not a well-paid profession.
- Looks like that. Modern society with its crises, unemployment and inflation, makes a poor choice of profession a bad mistake. You can choose a profession you really like, and face problems when looking for a job. Or you can find a job you like, but it will be underpaid. Nevertheless, I know quite a number of successful people who work in agricultural production. They are professionals.

- I'll do my best to become a professional. I am interested in farm production and recognize its importance for the society. There is such a sense of satisfaction when you actually make something yourself.
- Whatever you decide to do, remember that you must work hard to be wealthy.

Tasks

1. In pairs, act out the dialogue.

2. Using the dialogue match the translation of the phrases.

1) чувство удовлетворенности	A I haven't made up my mind yet.
2) проблема выбора	B putting all the ideas into practice
3) разведение рыб	C to become a professional
4) питомники	D fish hatcheries
5) осуществить все идеи на практике	E a sense of satisfaction
6) стать профессионалом	F nurseries
7) Я пока не принял окончательного решения	G problems with making choice
8) Дело в том, что ...	I The matter is ...

3. Choose the correct variant.

Agriculture ...

- a) is the production, marketing, and distribution of food.
- b) is a very broad concept.
- c) includes only dairies, fish hatcheries, nurseries, greenhouse facilities, forests, and rangelands are also areas where plants and animals are raised for food and other agricultural products.

An advantage of working in agriculture is ...

- a) there are quite a number of successful people who work in agricultural production.
- b) it is not difficult to enter the university.
- c) there is such a sense of satisfaction when you actually make something yourself and your work is very important for a society.

A disadvantage of working in agriculture is ...

- a) this sphere is underpaid.

b) there are problems when you're looking for a job.

c) there are no successful people in this sphere.

4. Using the scheme share your opinion about career in agriculture.

Speak about:

- the importance of agriculture
- the demand for particular specialists in the labour market
- sphere of your interests, your talents and personality
- career prospects

WORKING IN AGRICULTURE

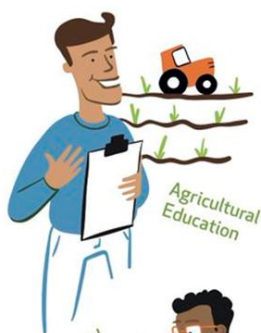


A career in agriculture offers huge potential, especially for young people

Agriculture is a **growing sector** in need of talented people

Agriculture is key to addressing the **world's biggest challenges**

Agriculture is full of **innovation and opportunity**



Agricultural Education



Agricultural Communications

SHARE YOUR STORY!

Working in ag?
Inspire us with your story!

Want to work in ag?
Tell us why!

Use the hashtag
#lamAg
on Twitter and see what
might happen next...



Agronomy & Soil Science



Food Science



Agricultural Economics



Farming



Agricultural Engineering



Animal Science

farmingfirst.org/lamAg

[@FarmingFirst](https://twitter.com/FarmingFirst)

Use the phrases:

There is no doubt that ...

It is better to make the right choice at the very beginning.

If you're interested in ... you can try yourself in ...

A young person can specialize in ...

finding the perfect match between your personality, interests, and skills



WHAT IS YOUR JOB?

Mark, Den and Anthony were fellow students. They graduated from Harper Adams University ten years ago. Now they work in the sphere of agriculture. Here is how they describe their work.

Mark: I am a science and engineering expert who researches and develops strategies to process, package, and safely distribute food products. Some my colleagues work in laboratories to investigate the physical and chemical properties of foods, while others are employed by processing plants to design new production techniques. So am I. Ultimately, we ensure the foods citizens consume are safe and nutritious.

What is Mark's job?

Den: I have an opportunity to apply my knowledge of animal biology, biochemistry, molecular biology, and other life sciences in animal breeding and genetics, nutrition, physiology, growth, behavior, and management, zoo hygiene, ecology and microbiology; ichthyology and fish breeding. I am engaged in farm animals breeding, maintenance and reproduction.

What is Den's job?

Anthony: I'm a medical professional who protects the health and well-being of both animals and people. My task is to diagnose and control animal diseases and treat sick and injured animals. I also advise owners on proper care of their pets and livestock. I have an opportunity to provide a wide range of services in private practice, teaching, research, government service, public health, military service, private industry, and other areas.

What is Anthony's job?

(for help: veterinarian, food technologist, zoo-technic)

Text 1

Some information about Harper Adams University

Harper Adams University is a public university located close to the village of Edgmond (near Newport), in Shropshire, England. It is a specialist provider of higher education for the agricultural and rural sector.



Thomas Harper Adams, a wealthy Shropshire gentleman farmer who had died in 1892, bequeathed his estate 'for the purpose of teaching practical and theoretical agriculture'. Harper Adams College was opened in 1901; Headworth

Foulkes was the first principal of the College and there were six students. Now courses are offered via five academic departments:

- Animal Production, Welfare and Veterinary Sciences
- Crops and Environment Science
- Engineering
- Food Science and Agri-Food Supply Chain Management
- Land, Farm and Agri-Business Management

The University also offers a range of masters' courses (MSc, MEng and MBA), research opportunities at PhD and post-doctoral levels, as well as work-based learning opportunities.

Tasks

1. **Scan the text.**
2. **Answer the question: What new information have you got from the text? Begin with: I have learnt that (about) ...**
3. **Find information about history of your university and share it in class.**
4. **In pairs, act out a conversation between students of two universities: the university you study at and Harper Adams University. Discuss: history, faculties, subjects, levels of study.**

Grammar revision
Tense system
Active voice

Exercise 1. Use Present Perfect or Past Simple.

1. Helen speaks French so well because she (to live) in France. 2. She (to live) there last year. 3. The rain (to stop) and the sun is shining in the sky again. 4. The rain (to stop) half an hour ago. 5. Mary (to buy) a new hat. 6. I (to buy) a pair of gloves yesterday. 7. The wind (to blow) off the man's hat, and he cannot catch it. 8. The weather (to change), and we can go for a walk. 9. The wind (to change) in the morning. 10. We (to travel) around Europe last year. 11. My father knows so much about zoo-engineering because he (to study) at the department of zoo-engineering. 12. I (to see) Pete's farm today. 13. The veterinar (to examine) this heifer last Monday. 14. Alex (to meet) his friend two hours ago. 15. I just (to meet) our teacher. 16. The students already (to decide) what to do during their practice. 17. Yesterday they (to decide) to help their fellow. 18. I (not to see) you for a long time. I (to see) you in town two or three days ago, but you (not to see) me. I (to be) on a bus.

Exercise 2. Use Present Perfect or Past Simple, Present Continuous or Present Simple.

1. What you (to do) here at such a late hour? You (to write) your composition? — No, I (to write) it already. I (to work) at my report. — And when you (to write) your composition? — I (to finish) it two days ago. 2. I say, Tom, let's have dinner. — No, thank you, I already (to have) dinner. 3. What the weather (to be) like? It still (to rain)? — No, it (to stop) raining. 4. Please give me a pencil, I (to lose) mine. 5. I (not to meet) Peter since Monday. 6. Nina just (to finish) work. 7. Where Sergei (to be)? — He (to go) home. He (to leave) the room a minute ago. 8. What you (to read) now? — I (to read) the journal "Veterinary service". 9. Mr Brown (to deliver) lectures on zoo-engineering a month ago. 10. My watch (to stop). There (to be) something wrong with it. 11. You (to see) Jack today? — Yes, I (to see) him at the institute. 12. You (to hear) the new symphony by M.? — Yes, I — When you (to hear) it? — I (to hear) it last Sunday. 13. You (to change) so much. Anything (to happen)?

Exercise 3. Use Present Perfect, Present Simple, Present Continuous, Past Simple or Past Continuous.

1. With whom you (to discuss) this question yesterday? 2. I (to see) this film this week. I like it very much. 3. When I (to enter) the kitchen, I (to see) that my mother (to stand) at the table and (to cut) some cabbage. She (to cook) dinner. 4. As soon as I (to hear) a cry, I (to run) out of the room and (to see) that a child (to lie) on the ground and (to cry). "What (to happen)? Why you (to cry)? You (to hurt) yourself?" I asked. 5. They (to go) to the Hermitage last week. 6. They (to be) to the Hermitage twice this week. 7. After school yesterday he (to come) home, (to have) dinner, (to read) an article from the latest magazine and (to begin) doing his homework. 8. When your friend (to return) from the south? — She (to return) yesterday. — You (to go) to the station to meet her? — No, I ..., I (to be) too busy. 9. Your brother (to decide) to enter the agrarian university? — Yes, he (to want) to become a food technologist. 10. You (to be) to the Crimea? When you (to be) there? — I (to be) there in 2005. 11. Where (to be) your brother? — He just (to come) home. He (to take) a shower in the bathroom now. 12. As soon as I (to see) him, I (to understand) that he (to work) hard. He (to write) something and (not to notice) anything. 13. When I (to come) to the farm yesterday, the worker said "Two cows (to give birth to) calves. Both mothers and newborns (to be) healthy". 14. It (to rain) hard when I (to leave) home yesterday, so I (to return), (to put) on my raincoat and (to start) again. 15. You (to work) right now? — Yes, I (to prepare) for the English exams. 16. Have a look! That (to be) the Golden Gate Bridge on your left. — Oh, it (to be) beautiful. I just (to take) a picture of it. 17. Where you (to learn) the news?

Exercise 4. Compare the following sentences. Translate the sentences using Present Simple, Present Continuous or Present Perfect Continuous.

Я живу в Санкт-Петербурге.	I live in St. Petersburg.
Я живу в Санкт-Петербурге с детства.	I have been living in St. Petersburg since childhood.
Она делает уроки.	She is doing her homework.
Она делает уроки с утра.	She has been doing her homework since morning.
Я все еще работаю над докладом.	I am still working at my report.
Я уже 3 часа работаю над докладом.	I have already been working at my report for three hours.

1. а) Мой папа работает в институте.
b) Мой папа работает в институте с 1995 года.
2. а) Моя бабушка готовит обед. (СЕЙЧАС) b) Моя бабушка готовит обед с двух часов.
3. а) Моя сестра спит.
b) Моя сестра спит с пяти часов.
4. а) Мама убирает квартиру. (СЕЙЧАС) b) Мама убирает квартиру с утра.
5. а) Дедушка смотрит телевизор. (СЕЙЧАС) b) Дедушка смотрит телевизор с шести часов.
6. а) Мой дядя пишет стихи. b) Мой дядя пишет стихи с детства.
7. а) Она читает. (СЕЙЧАС) b) Она читает с утра.
8. а) Они играют в волейбол. (СЕЙЧАС) b) Они играют в волейбол с трех часов.
9. а) Мы изучаем английский язык. b) Мы изучаем английский язык с 1998 года.
10. а) Она все еще изучает испанский язык. b) Она уже два года изучает испанский язык.
11. а) Они все еще живут на ферме b) Они уже четыре месяца живут на ферме.
12. а) Она все еще разговаривает по телефону. b) Она разговаривает по телефону уже двадцать минут.
13. а) Мой брат все еще работает ветеринаром. b) Он работает ветеринаром уже пять лет.
14. а) Она все еще пишет отчет о проделанном эксперименте. b) Она уже целый час пишет отчет о проделанном эксперименте.
15. а) Они все еще ловят рыбу. b) Они ловят рыбу уже пять часов.
16. а) Они все еще спорят. b) Они спорят уже два часа.
17. а) Она еще спит. b) Она спит уже два часа.

Useful words and word combinations

agricultural production – сельскохозяйственное производство

animal biology – биология животных

animal breeding – селекция животных

animal disease – болезнь животных

behavior – поведение

biochemistry – биохимия

dairies – переработка молока

ecology – экология
farm equipment mechanic – механизатор с/х оборудования
fish breeding – рыбоводство
fish hatcheries – рыбоводческие хозяйства
fishery biologist – биолог рыбоводческого хозяйства
floral designer – дизайнер флорист
foods – продукты питания
forester – специалист по лесному хозяйству
forests – леса
genetics – генетика
greenhouse facilities – тепличное хозяйство
ichthyology – ихтиология
management – управление (зд. уход)
microbiology – микробиология
molecular biology – молекулярная биология
nurseries – питомники
nutrition – питание
nutritious – питательный
organic farmer – фермер, занятый в органическом земледелии
physical and chemical properties of foods – физические и химические свойства продовольствия
physics – физика
physiology – физиология
processing – переработка
production techniques – технологии производства
rangelands (grasslands) – пастбища
safe – безопасный
to apply smb's knowledge in ... – применять знания в ...
to consume – потреблять
to investigate – исследовать
to process – перерабатывать
veterinarian – ветеринар
zoo hygiene – зоогигиена

Tasks

1. Find in the list of words the meaning of:

- a) professions**
- b) disciplines**

c) professional duties and processes

professions	disciplines or spheres of study	duties and processes
...	...	processing

2. Using the table make up phrases.

Model: Food technologist must have good knowledge of physics and chemistry in order to develop food production techniques.

3. Make up word combinations. Translate them.

animal	disease fodder behavior physiology management breeding
to apply your knowledge in to investigate (problems in)	production techniques processing farm products animal breeding dairies biochemistry zoo hygiene animal physiology physical and chemical properties of foods
to work as	a veterinarian an organic farmer a forester a fishery biologist a floral designer

4. Translate the sentences.

1) Veterinarian is an animal doctor, whose duty is to take care of animals that are ill or injured. 2) Ichthyology, also known as fish science, is the branch of zoology devoted to the study of fish. 3) Nutritious foods provide the substances that people need in order to be healthy. 4) Greenhouse facilities are necessary for growing plants

that need protection from the weather. 5) Many people have dramatically reduced the amount of red meat they consume. 6) Zoo hygiene is a science concerned with the effect of maintenance conditions on the health and productivity of animals. 7) Food production techniques are known to be the key factor in developing food industry.

Text 2

My future profession

I'm a student of Penza state agrarian university. I study at the technological faculty. My future profession is a food technologist. To my mind it is one of the most important occupations. To master my professional skills I work hard and study lots of subjects: biology, milk production, chemistry, plant and meat production and others.

Food production industry needs experts who use the principle findings of scientific research to determine how to improve a product's nutritional value and extend its shelf life. Experts who work in research laboratories conduct experiments with different types of additives, preservatives, and packaging materials. They set recommendations for storage temperatures and preparation techniques to help consumers avoid eating bad food. Other specialists are employed by processing plants to design new production techniques.

Additionally, some researchers are involved in studies to create dishes and recipes that are generally healthier than existing options. In addition, a food technologist may apply his or her specialized knowledge to the development of better quality-control programs, shipping methods, and government standards.

Food technology is often described as the practical application of food science, the study of plant and animal products consumed by humans. Professionals who work at processing plants apply their knowledge of engineering to design more efficient systems and equipment to prepare food products for distribution. They implement quality-control guidelines and supervise workers to make sure products are not contaminated when they leave facilities.

My profession is in demand, because it is connected with human health and economic development of the country.

Tasks

1. Read and translate the text.

2. In the text, find English equivalents for the following words and phrases:

аграрный, пищевой технолог, чтобы овладеть навыками профессии, питательная ценность, увеличить срок годности, добавки, технология приготовления, перерабатывающие заводы, стандарты по контролю качества, методы транспортировки.

3. Using the text choose the sphere where you want to work. Use: I would like to apply my knowledge and efforts in ... because ...

4. Make up sentences.

If you're interested in ...	scientific research ...	you can apply your knowledge and efforts in (at)...	meat and milk processing enterprises.
	food quality...		research laboratories.
	veterinary ...		breeding farms.
	breeding farm animals ...		vet clinic.

5. Answer the questions.

- 1) Where do you study?
- 2) What is your future profession?
- 3) What subjects do you study?
- 4) What do experts in food production industry do in laboratories?
- 5) What do they do in the processing plants?
- 6) What is food technology?
- 7) Why is your profession in demand in the society?
- 8) What processing enterprises are there in your region?

6. Give a talk about your future profession.



How to Apply for a Job

1. Find a job, research the requirements, and ensure that you meet them.
2. Write a resume and cover letter.
3. Get some references from past employers or professors.
4. Apply for the job in person, online, or by mail.
5. Contact the hiring manager after the one week after applying.
6. Submit your resume to lots of job portal services

How to Write a Resume

There is no doubt that having an up-to-date resume is highly important. Resumes not only outline your education and work history, but they can also point to specific projects you've worked on or awards you've won. Information to include on your resume should entail:

Your current contact information, including your full name, phone number, mailing address, and email address.

Your educational background. List the colleges you have attended (beginning with your most recent), the year you attended, and any degrees or certificates earned.

Your work history for the past few years. The unofficial rule is one resume page per ten years of experience. Be aware that large gaps in employment, or multiple jobs within a short amount of time, will be something you may be asked about in an interview. Be sure to include dates of employment, the company name, your title, and a brief description of your activities.

Your relevant skills. This is your opportunity to list all the skills you have acquired through the years. Knowledge of office equipment, familiarity with computer operating systems, software programs (such as Microsoft Office Suite or Adobe Creative Suite), database experience, and other relevant information should be included in your resume.

Task

Write your resume and act out an interview.

Example of a Veterinarian Resume

Full Name

[Street, City, State, Zip] | [Phone] [Email Address]

VETERINARIAN

■ Career Profile

Detail-oriented and experienced veterinarian who is proficient in handling complex medical cases including surgeries, ultrasound diagnosis, and medical reports analysis,

- Having natural love for animals, good customer service abilities and readiness to work around the clock.
- **Skills include:** providing physical examination, evaluation, planning, adaptation and modification of medical procedures for animals.

- **■ Professional Experience**

Veterinarian	Vet-Hospital	Mount Airy, NC	2004 – Present
---------------------	--------------	----------------	----------------

- Conducted detailed examination of animals to find out the possible symptoms and prescribed medication or treatment on the basis of the discovered symptoms or disease.
- Performed a variety of surgeries and medical procedures.
- **Highlights of Contributions:**
- Assisted and educated the pet owners about general feeding procedures and other sanitary measures in order to promote animal healthcare.
- Created general awareness among the public about communicable diseases that can affect even humans.
- Trained and supervised personnel who took care of animals on a farm.
- Conducted routine tests on the animals for detecting any disorders or diseases.
- **Contributions to medical research:**
- Contributed information to the research community regarding experimental protocols/procedures on animals.
- Assisted in the development of drugs and vaccinations necessary for animal treatment.

- **■ Education**

University of Wisconsin	Madison, Wisconsin	1998 – 2004
Doctor of Veterinary Medicine (DVM/VMD.)		

- [State] License. 2005

Unit II

The world of animals

Dialogue

- I like animals very much. They are beautiful, interesting, clever and cute. They are also useful. What do you think about animals?
- As for me, I am rather interested in wild animals. Most of them are far from being cute. Sharks or crocodiles, for example, are unlikely to become your pets. But all animals have some common distinct features like ability to move, make sounds, collect food materials and other activities.
- You are right. They are dominant living beings on the earth. These includes small animals like insects to intelligent large animals. Is there any short definition of animals?
- There is. Animals are multi cellular, eukaryotic [ju:kəri'ɒtɪk] эукариотические living beings. Most of them are dependent on plants while few are dependent on other animals.
- They have brain, which evolves further, and they can make decisions. I'm sure.
- I agree with you.
- I know they can be classified into different types based on their food requirements, habitats, size, reproduction, body anatomy etc. Broadly, scientists have grouped animals into two classes: Vertebrates (animals with backbones) and invertebrates (animals without backbones). Every animal of the world belongs to one of them. But I'd like to know their classification by evolution. Is there any?
- It goes without saying, there is. Types of animals by evolution:
 - Sponges
 - Coelenterates
 - Worms
 - Mollusca
 - Arthropods
 - Echinoderms
 - Fishes
 - Amphibians
 - Reptiles
 - Birds and Mammals (include humans).

Tasks

1. In pairs, act out the dialogue.
2. Match the translation of the phrases.

1) милый	A multi cellular
2) четко выраженные черты	B cute
3) определение	C distinct features
4) многоклеточный	D habitat
5) среда обитания	E insects
6) насекомые	F wild animals
7) дикие животные	G vertebrates
8) позвоночные	I definition

3. Find in the dictionary the translation of the terms:

Sponges, Coelenterates, Worms, Mollusca, Arthropods, Echinoderms, Fishes, Amphibians, Reptiles, Birds, Mammals.

4. Choose the correct variant.

- 1) Any animal can be your pet.
a) True b) False c) Not stated in the dialogue
- 2) Every class of animals is united by one common feature.
a) True b) False c) Not stated in the dialogue
- 3) Animals can make decisions.
a) True b) False c) Not stated in the dialogue
- 4) Vertebrates are animals with backbones and invertebrates are animals without backbones.
a) True b) False c) Not stated in the dialogue
- 5) There are many animals' classifications.
a) True b) False c) Not stated in the dialogue
- 6) There are as many types of animals as plants.
a) True b) False c) Not stated in the dialogue

5. Comment Scheme 1. Use the phrases:







According to the scheme all animals can be classified into ...


As for amphibians (birds, ...) they ... The example(s) is (are) ...

The next type is ...

Scheme 1

Types of Animals

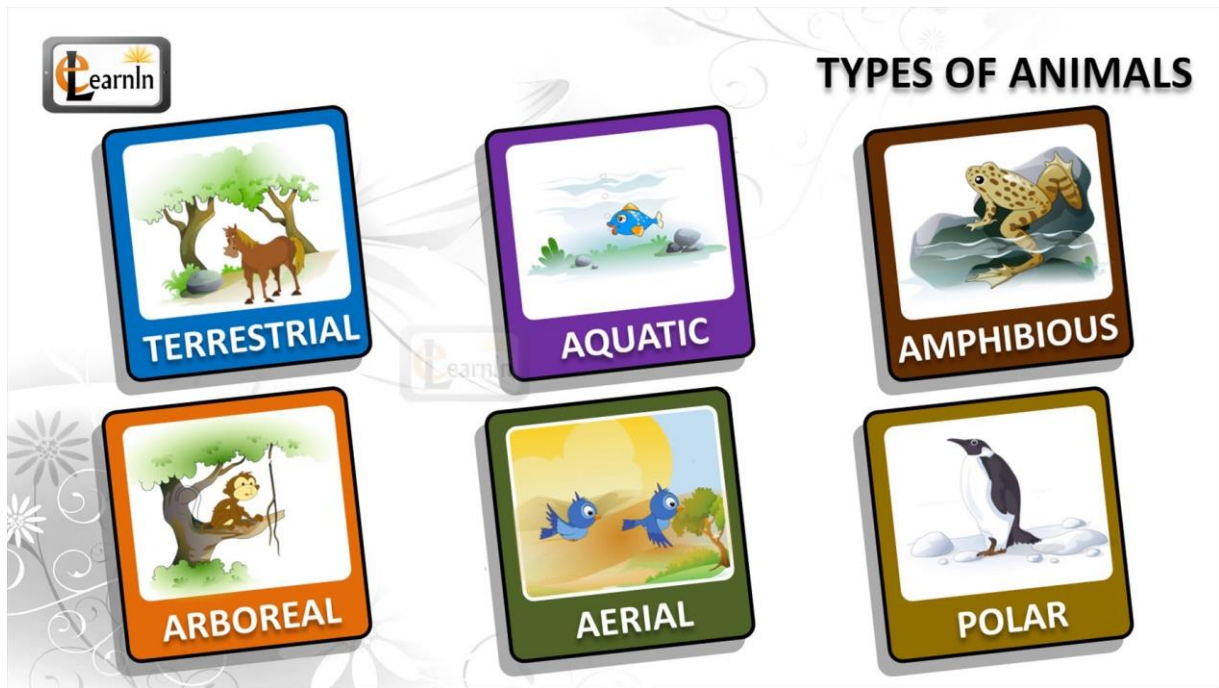
 <h3>Amphibians</h3> <ul style="list-style-type: none">• are cold-blooded• can live on land and in water• lay jelly-covered eggs in the water• are vertebrates - have a backbone• have moist skin• do not have scales	 <h3>Birds</h3> <ul style="list-style-type: none">• are animals with feathers• have two legs and two wings• have a beak or a bill• lay eggs• are warm-blooded
 <h3>Fish</h3> <ul style="list-style-type: none">• are cold blooded• lay eggs• are covered with scales• have fins not legs• live in water and breathe through gills	 <h3>Insects</h3> <ul style="list-style-type: none">• have six legs• are made up of 3 parts - head, thorax and abdomen• have a pair of antennae• have one or two pairs of wings• are cold-blooded• lay many eggs
 <h3>Mammals</h3> <ul style="list-style-type: none">• have fur or hair• babies drink milk from their mother's bodies• are vertebrates - have a backbone• have four limbs• breathe air through their lungs• are warm-blooded	 <h3>Reptiles</h3> <ul style="list-style-type: none">• have dry, scaly skin• have short legs or no legs at all• breathe air through their lungs• are cold-blooded• are vertebrates - have a backbone• lay many eggs

 scholarschoice.ca Copyright © 2006 Scholar's Choice. All rights reserved. - Printed in Canada.

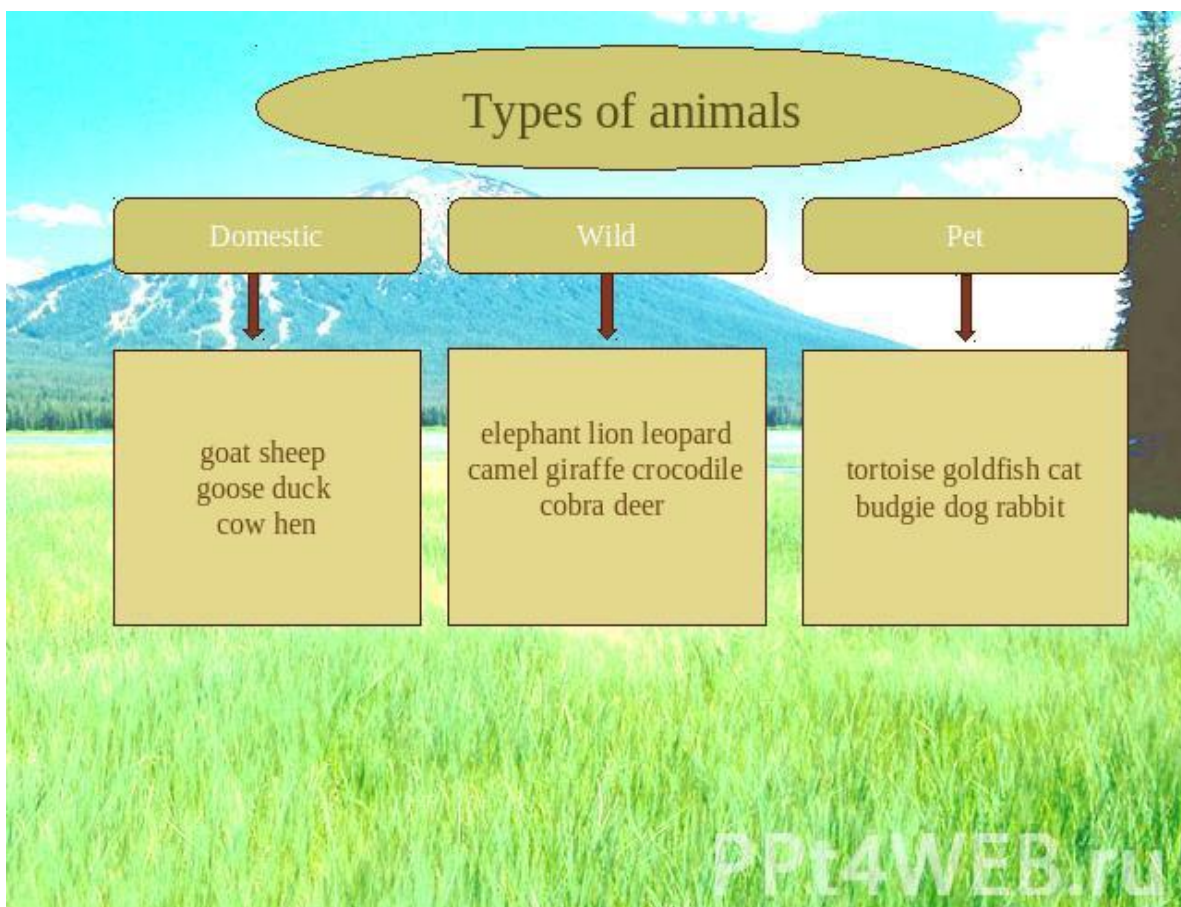
6. Comment schemes 2, 3 and 4. Make a conclusion based on schemes 1, 2, 3 and 4.

Use: According to their habitat (role, food consumption) animals can be classified into ...

Scheme 2



Scheme 3



Scheme 4

Consumers "Eat"

- are organisms that consume (eat) producers and other consumers to get energy.
- Examples: Animals

Types of Consumers

- Herbivores are animals that eat only plants.
- Carnivores eat mainly other animals.
- Omnivores eat a significant amount of both plants and animals.



DO YOU KNOW A FAMILY OF ANIMALS?

A litter of pups means a family of pups. Make up phrases and translate them into Russian.

The beginning of a phrase	The end of a phrase	Translation
A flock of	bees	...
A herd of	cattle	
A shoal of	wolves	
A clutch of	eggs	
A pack of	sheep	
A pride of	herrings	
A troop of	lions	
A brood of	chickens	
Laying of	geese	
	monkeys	
	elephants	

Text 1

Domestication of animals

Some of our earliest evidence of man (and art) is tied to animals. Cave illustrations depict bison and deer. Obviously, animals have played a large part in the lives of humans throughout our history, becoming integral to our survival, our history and our very identity.

From archeological evidence such as fossils, historians have learned a lot about man's domestication of animals. In general animals have been domesticated for the following three purposes: as a source of food, clothing, as assistants used in various human activities, or as pets. The origin of domestication is unknown. Animal domestication is partly tied to human domestication or the human shift from hunter-gatherer to farmer. Domestication involves more than simply taming.

Animals are considered to be domesticated when:

- they are kept for a distinct purpose
- humans control their breeding
- their survival depends on humans
- they develop traits that are not found in the wild.

The dog is likely to be the most widely distributed and variably used domesticated animal.

Cattle are the most important of the animals domesticated by man and, next to the dog, the most ancient. Though hunter-gatherers worked with domesticated dogs long before human domestication, later on, farmers saw the benefit of keeping livestock. As some people became farmers and started to settle in one place, raising domesticated livestock offered them the convenience of fresh meat as well as manure for fertilizing crops.

More than one million species of animals have been identified so far, and it is thought that many more species remain to be discovered and some possibilities for domestication still exist. So, domestication of animals plays a very important role in human's progress.

Tasks

- 1. Scan the text.**
- 2. Correct the plan to the text.**

Plan

- 1) Role of domestication
- 2) Animals in human life
- 3) Purposes of domestication
- 4) Characteristics of domestication
- 5) The most important domesticated animals

3. In the text, find and translate the sentence(s), which
a) prove(s) the idea that dog, was domesticated earlier than cattle;
b) describe(s) the main characteristics of domestication.

4. Study the table.

Domestication of animals

Species and subspecies	Wild ancestor	Date	Location of origin	Purpose
Dog	Pleistocene population of extinct Gray wolf	13000 BC	Europe	Pets, hunting, herding, guarders, pest control, transportation, show, racing sports, rescuing, guiding, servicing, fighting, meat, research, fiber
Sheep	Mouflon	9000 BC	Anatolia, Zagros mountains	Fiber, meat, milk, leather, pelt, research, vellum (пергамент)
Cattle	Aurochs ['ɔ:rɔks] (зубр)	8000 BC	India, Middle East, North Africa	Meat, milk, leather, hides, draft power, vellum, transportation, blood, fertilization, research
Cat	African wild cat	8000 BC	Near East	Pets, pest control, show, research
Chicken	Red jungle fowl	6000 BC	India, south-east Asia	Meat, eggs, feather, ornamental, fighting, pets
Horse	Wild horse	3500 BC	Kazakhstan	Transportation, milk, meat, working, hunting, racing, draft, pets, show

5. In pairs, using the information in the table act out a conversation.

Model:

- I'm awfully interested in cats. They are my favourites. They are cute and funny.
- I see. No doubt, they are the most graceful animals with their own character.
- Where did they come from?
- They originated from African wildcat and came from Near East.
- When did man find them?
- According to the historical data, they were found 8000 BC. Do you know the purpose of their domestication?
- Let me think... they were domesticated as pets. The other reasons are pest control, research and show.

Grammar revision

Passive voice

Exercise 1. Translate the sentences using Present, Past or Future Simple Passive.

Мне рассказали — Мне рассказывают — Мне расскажут

Мне показали — Мне показывают — Мне покажут

Оборудование привезли — Оборудование привозят — Оборудование привезут

Студентов спросили — Студентов спрашивают — Студентов спросят

Нам ответили — Нам отвечают — Нам ответят

Йогурт производили — Йогурт производят — Йогурт произведут

Ему помогли — Ему помогают — Ему помогут

Ему посоветовали — Ему советуют — Ему посоветуют

Корма запасали — Корма запасают — Корма запасут

Животных защищали — Животных защищают — Животных защитят

Нас пригласили — Нас приглашают — Нас пригласят

Оборудование установили — Оборудование устанавливают —

Оборудование установят

Ветеринара позвали — Ветеринара зовут — Ветеринара позовут

Exercise 2.

Use Present Simple Passive.

- 1) New possibilities for domestication (to develop) by the scientists.
- 2) Animal husbandry (to connect) directly with fodder production.
- 3) Animals (to breed) for different purposes.
- 4) The results of the work of geneticists (to see) in poultry industry.
- 5) Balanced rations for pigs (to calculate) by computers.

Exercise 3. Use Past Simple Passive.

- 1) In the past the consumption of meat and dairy products during winter (to confine) to butter, cheese and salted meat stored from the summer.
- 2) The letters (to sort) into the different towns.
- 3) Cheap grain from Europe and America and oil-cakes from Russia and Africa (to deliver) by ships to England.
- 4) Animals (to domesticate) for the following three purposes: as a source of food and clothes, as assistants in different human activities and as pets.
- 5) The first national park (to establish) in the USA in order to protect wild life and plants.
- 6) Long ago plants (to use) by people to make medicines.
- 7) A lecture on proper care of pets and livestock (to deliver) by Mr Bishop.

Exercise 4. Use Future Simple Passive.

- 1) The letters (to sort) into the different towns.
- 2) We believe that many of the improved methods of forage conservation (to develop) by agriculturalists in the future.
- 3) Final safe storage moisture content (to vary) with crop quality.
- 4) Additional nutrient losses (to cause) by bacteria and moulds.
- 5) Our daily requirements of copper (to provide) by diet containing nuts, vegetables and olive or sunflower oil.
- 6) The mailbags (to unload) after their journey.
- 7) A lot of health problems (to lead) to by stress if people don't find ways to cope with it.

Compare

The doctor was sent. — Доктора послали.

The doctor was sent for. — За доктором послали.

He was talked about. – О нем говорили.
He was sent for. – За ним послали.
He was waited for. – Его ждали.
He was looked at. – На него посмотрели.
He was listened to. – Его слушали
He was laughed at. – Над ним смеялись.

Запомните эти предложения:

The house wasn't lived in.

The bed wasn't slept in.

Exercise 5. Change Active voice into Passive voice.

E.g. We often speak of her. — She is often spoken of.

1. The senior students laughed at the freshman.
2. The group spoke to the headmistress yesterday.
3. Young mothers looked after their babies with great care.
4. Nobody lived in that old house.
5. They sent for Jim and told him to prepare a report on biology.
6. We thought about our friend all the time.
7. The veterinarian will operate on the cow in a week.
8. The teacher sent for the pupil's parents.
9. They looked for the newspaper everywhere.
10. Nobody slept in the bed.
11. The neighbor asked for the telegram.
12. Everybody listened to the lecturer with great attention.
13. The agronomists often speak about the weather.

Exercise 6. Change the marked verbs into the Passive voice. Change the sentences accordingly.

1. She took a long time to write the composition, but at last she **wrote** it.
2. Don't put the cup there: somebody will **break** it.
3. Why weren't you at the birthday party? — They didn't **invite** me.
4. We met many difficulties in the livestock department, but all the same we **finished** the work in time.
5. I **spent** all my money on books last month.
6. I don't think we shall **do** all this work today: there is too much of it.
7. Don't leave fish on the table: the cat will **eat** it.
8. She really **broke** her mother's heart when she left home.
9. The bees **attacked** the bear when it tried to take their honey.

Запомните:

Это нужно сделать. — It must be done. Это можно сделать. — It can be done.

Exercise 7. Change Active voice into Passive voice.

Model: Monkeys can climb even the tallest trees. – Even the tallest trees can be climbed by monkeys.

1. You must take the box to the station.
2. You can cross the river on a raft.
3. The workers can finish the building of the house very soon.
4. You must return the books the day after tomorrow.
5. You must do three of these exercises tomorrow.
6. You can find the book you need in any library.
7. We must send these letters at once.
8. I can easily forgive this mistake.
9. You can find such berries everywhere.
10. You must do this work very carefully.
11. The doctor says they must take her to hospital.
12. You can do the work in three days.
13. The students must return all the library books before each summer vacation.

Useful words and word combinations

breed – порода; to breed (bred)– разводить

brood – выводок, помет

cave illustrations – рисунки в пещере

clutch – выводок

crossbreeding – скрещивание

domestication – одомашнивание

even-toed ungulate – парнокопытное

fiber – материал, волокно, ткань

fighting – бои

flock – стая, отара

fossil – ископаемый, окаменелость

gain in weight – привес

gregarious [grɪ'ɡeəriəs] – стадный, стайный

guarder – охранник, защитник

guiding – проводник, поводырь

habitats – места обитания

herd – стадо

herding – охрана стада

hunter-gatherer – охотник-собиратель

hunting – охота

litters – приплод
 living beings – живые существа
 meat – мясо
 multicellular – многоклеточный
 offspring – потомство
 pack – свора
 pest control – борьба с вредителями
 pet – любимец, домашнее животное
 pleistocene – ледниковый
 pride – прайд
 pure breeding – чистопородное разведение
 purpose – цель
 racing sports – гонки
 rescue – спасение, спасательные услуги
 research – исследование
 servicing – обслуживание, помощь
 settle in one place – осесть, вести оседлый образ жизни
 shoal – стая, косяк
 show – шоу, выставка
 survival – выживание
 transportation – транспортировка, услуги транспорта
 troop – табун
 yield – урожай, надой, прибыль
 waterfowl family – семья водоплавающих

Tasks

1. Make up word combinations.

the purpose of cats pleistocene gregarious to belong to the survival history	show animals domestication waterfowl family period of domestication is threatened
--	---

2. Translate the sentences. Pay attention to the Active and Passive voice.

1. Good feeding and management conditions will increase milk yields.

2. Purebred parents transmit their characteristics to their offspring.
3. Different methods are used by farmers to improve their herds and flocks.
4. Our farm does not breed sheep.
5. In winter the cattle will be fed with hay, silage and grain.
6. What methods do farmers use to increase the productivity of farm animals?

3. Insert the correct word.

(For help: litters, gain in weight, yield, herds, flocks, pure breeding, crossbreeding, off spring.)

1. Dairy cows should be fed with proper feeds in order to produce high milk....
2. Calves provided with good pasture... well.
3. Sows are known to produce two ... per year.
4. The improvement of... and ... are important to obtain more and higher-quality products.
5. There are many systems of breeding livestock, ... and ... being most common.
6. To obtain high-quality ... only purebred parents should be used.

Text 2

Types of farm animals

There are different types of animals on a farm and one can select the best pair according to the space available to raise an animal farm. Raising an animal farm requires tedious work and a complete planned structure. Most of the animals in the farm offer benefits in the long period. Milk, transportation, meat and companionship are the major benefits associated with raising different animals on a farm. Every animal has a specific benefit and serves a different purpose.

Cow. Cattle are the most common type of large domesticated ungulates. They are a prominent modern member of the subfamily Bovinae. Cattle are raised as livestock for meat (beef and veal), as dairy animals for milk and other dairy products, and as draft animals (oxen or bullocks that pull carts, plows and other implements). Other products include leather and dung for manure or fuel. In some regions, such as parts of India, cattle have significant religious meaning. There are many cattle breeds in the USA. In the Northern areas of the USA the Holstein is the leading dairy breed. In the Southern states the Jersey is more popular than other dairy breeds raised there. As to beef breeds there are many of them. They are

bred throughout the country. Most farmers raise the Shorthorn and Hereford beef breeds of cattle. There are also dual-purpose breeds kept for the production of both milk and meat. Two of them, the Red Polled and Milking Shorthorn are known to be the best dual-purpose breeds of cattle in this country.

Pig. A pig is any of the animals in the genus *Sus*, within the even-toed ungulate family Suidae. Pigs include the domestic pig and its ancestor, the common Eurasian wild boar (*Sus scrofa* Pigs), like all suids, are native to the Eurasian and African continents. Pigs are highly social and intelligent animals. Domesticated pigs called swine, are raised commercially for meat (generally called pork, hams, gammon or bacon), as well as for leather. Their bristly hairs are also used for brushes. Due to their common use as livestock, adult swine have gender specific names: the males are boars and the females are sows. In Britain, the word hog can refer to a castrated adult male pig. Young swine are called piglets or pigs. Pork is one of the most popular forms of meat for human consumption, accounting for 38% of worldwide meat production.

Chicken. The chicken (*Gallus gallus domesticus*) is a type of domesticated fowl, a subspecies of the red junglefowl. It is one of the most common and widespread domestic animals, with a total population of more than 19 billion as of 2011. Chickens are omnivores. In the wild, they often scratch at the soil to search for seeds, insects and even animals as large as lizards, small snakes or young mice. Chickens may live for five to ten years, depending on the breed. Chickens are gregarious birds and live together in flocks. They have a communal approach to the incubation of eggs and raising of young.

Duck. Duck is the common name for a large number of species in the waterfowl family Anatidae, which also includes swans and geese. Duck also plays a vital role like the best different types of animal on a farm. It provides the ability in production of meat and eggs. Of course, this is useful when there is a demand in the region for duck meat and eggs. Animal farms can also look at exports to other countries where there is good demand for quality duck meat and its eggs.

Horse. It is another important animal not only on a farm. It is useful in transportation. The animal possesses immense strength in carrying numerous loads on a cart. The speed at which it travels is amazing and proving to be the best animal in terms of companionship. Horses are able to sleep both standing up and lying down. Female horses, called mares, carry

their young for approximately 11 months, and a young horse, called a foal, can stand and run shortly following birth. They reach full adult development by age five, and have an average lifespan of between 25 and 30 years. Horses and humans interact in a wide variety of sport competitions and non-competitive recreational pursuits, as well as in working activities such as police work, agriculture, entertainment, and therapy. Many products are derived from horses, including meat, milk, hide, hair, bone. Humans provide domesticated horses with food, water and shelter, as well as attention from specialists such as veterinarians.

Tasks

1. Read and translate the text.

2. In the text, find English equivalents for the following words and word combinations:

пространство, имеющееся в распоряжении; кропотливая работа; отдача от фермы; общение (зд. использовать в качестве спутника); телятина; навозная жижа; породы двойного назначения; парнокопытный; предок; щетина; свиноматка; всеядный; ящерицы; семейство водоплавающих; спрос на утиное мясо и яйца; вынашивают детенышей; продолжительность жизни.

3. Using the text develop the idea:

- 1) Raising an animal farm is a hard work because ...
- 2) Cattle are raised not only for beef, but ...
- 3) Pig-breeding provide population with a lot of products, such as ...
- 4) Pork is one of the dominant kind of meat because ...
- 5) The population of chickens is the biggest in the world because ...
- 6) Chickens live together in flocks because ...
- 7) Raising ducks depends on ...
- 8) Horses are rather useful in other spheres than in agriculture, for example, ...

4. In pairs, using the above information discuss the question: “What farm animals would you rather rear?”

Use: As for me ... – Что касается меня, ...; **First and foremost** – Прежде всего; **And finally** ... – И наконец, ...

- By the way, what farm animals would you rather rear?
- As for me, I prefer ...

- Why?
- There are quite a number of reasons for it. First and foremost ... Then, ... and finally, ...
- But ...
- Never mind. I'm sure ...
- Looks you're right.

For ideas: demand (спрос) for the produce, profit, to sell, enough fodder, low costs.

5. Write an annotation to the text.

Use the following pattern:

- 1) The title of the text is ...
- 2) This text is (economic, agricultural, scientific, publicistic, ecological ...)
- 3) This text is about ... (deals with ..., describes ..., is devoted to ... touches upon the problems ...)
- 4) I think it should be divided into 2, 3, 4, ... logical parts.
- 5) The first one is about ... (deals with ..., describes ..., is devoted to ... touches upon the problems ...). Its main thought (or: key sentence) is ...
- 6) The main idea of the text is ...
- 7) I think ...

6. Using extra material make a presentation about an animal you choose. Don't forget to speak about:

Its habitat, its appearance, its food, its enemies, its behavior, its role in nature.

Unit III Cattle

Dialogue

Mark: Ben, meet my friend, Fred Noridge. Fred, this is Ben Slope.

Fred: How do you do. Glad to meet you.

Ben: I remember we have met before. Did you take part in cattle exhibition last year?

Fred: I did. Oklahoma, August... Are you a farmer?

Ben: No, I'm a journalist. I was to make a report about the exhibition.

Fred: I see. How is your report?

Ben: I did it, but I'm not quite satisfied with it. I'm not an expert on cattle-breeding.

Fred: Don't get upset about it. Believe it or not, I'm not an expert on cattle-breeding either, though I have worked 20 years in this industry.

Ben: Really?! May I have a word with you?

Fred: Certainly. What are you interested in?

Ben: The matter is I'm working for the agricultural journal "Farming". My section is devoted to cattle-breeding. I need some information in order to have a general idea about the situation in this industry. Will you help me?

Fred: With pleasure. I'll do my best to help you. Let's meet tomorrow.

Ben: OK. Thank you.

...

Fred: So, if we speak about cattle-breeding it would be reasonable to speak about the state of Oklahoma.

Ben: But why? If I'm not mistaken, the farms in the state of Oklahoma grow wheat, sorghum, cotton, corn and peanuts.

Fred: You are right. However, the state has a serious problem with soil erosion. In order to overcome this problem much of the cropland has been converted into grassland. This change has given good results: cattle-raising has become a major agricultural activity in Oklahoma.

Ben: I see. Let's imagine that I'm a beginner and want to start a cattle-breeding farm. What can you recommend?

Fred: It's very difficult to work on a cattle-breeding farm. There is always much work to do on the farm. You must look after your herd. You are to milk the cows and clean the cowsheds.

Ben: Yes, I know that it will not be easy. I have to get up early in the morning in order to do all the necessary work. Then I have to take great care of the young animals, the calves. Cattle should be fed and fattened. What can you say about pastures in Oklahoma?

Fred: Usually most animals are raised on pastures; this allows them to feed freely on grass, saving the farmer work and money. They are getting all of the needed nutrients from the grass and they are able to get the needed exercise, however some farmers will still feed them grain to help them grow.

Ben: I wonder, what are the main breeds?

Fred: In the first half of the twentieth century the Hereford was the preferred breed, but Aberdeen-Angus became dominant in the latter half.

Ben: What is the most common disease in dairy cattle?

Fred: Mastitis: this is an infection of the udder; you cannot ship milk that is infected with mastitis. There is also milk fever: after the cow has given birth, she is putting all the calcium in her body into the milk, leaving her deficient in calcium.

Ben: Oh, Fred, thank you. You've been very helpful.

Fred: That was a pleasure.

Tasks

1. In pairs, act out the dialogue.
2. Match the translation of the phrases.

1) to take part in	А заботиться о ... , проявлять заботу о ...
2) calf (calves)	В ухаживать, присматривать за
3) to milk	С доить
4) to look after	Д питательные вещества
5) proper care	Е коровники
6) cowsheds	Ф теленок (телята)
7) to take care of	Г надлежащий уход
8) cattle-breeding	Н принимать участие
9) pastures	И зерно
10) nutrients	Ж пастбище
11) grain	К стойло

3. Find in the dialogue the sentences about:

- a) Fred's occupation;
- b) the reason for cattle-raising has become a major agricultural activity in Oklahoma
- c) the main cattle breeds in Oklahoma
- d) the main animal diseases

4. Fill in the gaps with words that suit the meaning: incubator, buildings, management, exercise, cowshed, pigs

1. Proper care and ... of the cattle are very important. 2. Pastures provide a lot of... and feed. 3. All the ... for the animals should be clean and well ventilated. 4. Cattle and... are fattened on this farm. 5. Chickens are bred in 6. There is a new ... on their farm.

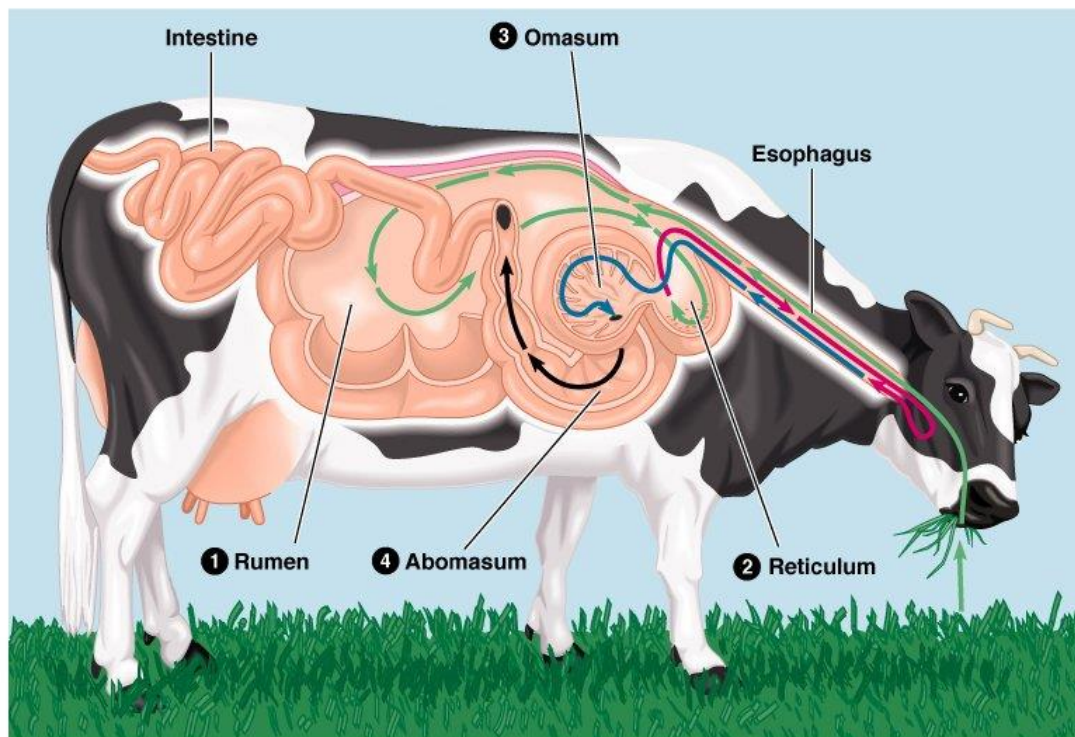
5. Comment scheme 1. Use the phrases:

According to the scheme cattle have one stomach with four compartments

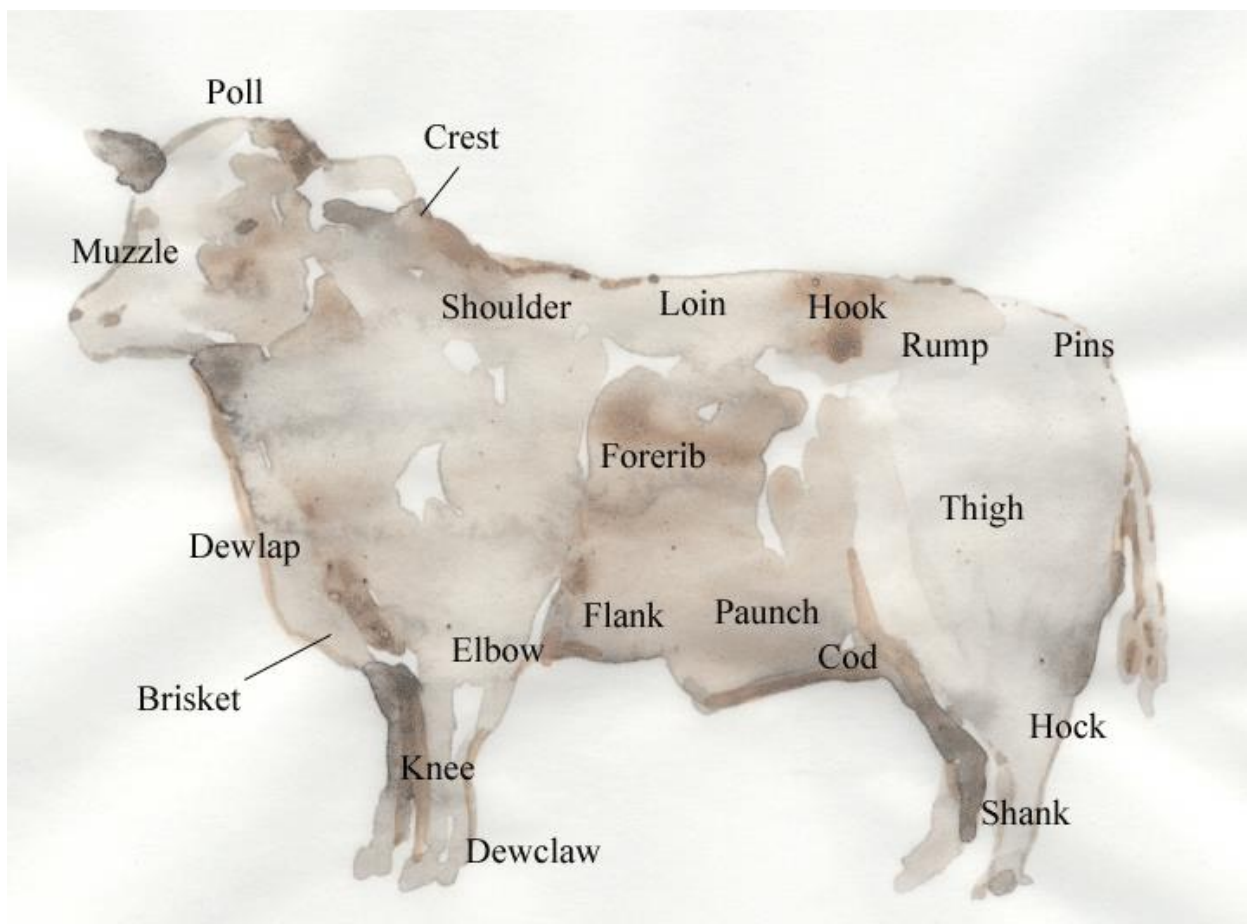
As the rumens are ...

The reticulum is

Scheme1



©1999 Addison Wesley Longman, Inc.



Scheme 2

6. Compare scheme 1 and scheme 2. What is the difference?

7. Read and translate the text

Text 1 Cattle

Cattle are large grass-eating mammals with two-toed or cloven hooves and a four-chambered stomach which is an adaptation to help digest tough grasses. They can be horned or polled (or hornless), depending on the breed.

The horns come out on either side of the head above the ears and are a simple shape, usually curved upwards but sometimes down.

Species of cattle.

Cattle were originally identified by Carolus Linnaeus as three separate species. These were *Bos taurus*, the European cattle, including similar types from Africa and Asia; *Bos indicus*, the zebu; and the

extinct *Bos primigenius*, the aurochs. The aurochs is ancestral to both zebu and European cattle.

Cattle usually stay together in groups called herds. One male, called a bull will usually have a number of cows in a herd as his harem.

The cows usually give birth to one calf a year, though twins are also known to be born. The calves have long strong legs and can walk a few minutes after they are born, so they can follow the herd.

Cattle are native to most tropical and subtropical parts of the world except Australia and New Zealand. Cattle have been domesticated for about 7,000 years. They are used for milk, meat, transport, entertainment, and power.

Cattle are herbivorous, meaning that they are plant-eating (primarily grass) animals. Eating grass is called "grazing". They have very strong tongues and strong lower front teeth that help them to graze. Unlike a horse, cattle do not have any upper front teeth.

Cattle are ruminants which mean they have a stomach with several chambers which helps digest their food more efficiently. A cow's stomach has four chambers called the reticulum, rumen, omasum and abomasum. The reticulum is known as the "hardware" stomach because it is mainly used as a storage area for hard things that the cow might accidentally swallow like nails, rocks and other objects. The rumen is the largest chamber in a ruminant's stomach, and in cattle it can hold up to 50 gallons feed. It is the chamber where fermentation takes place to help break down the grass that the cow has eaten. The omasum, also known as "many piles" is a compartment that squeezes or absorbs all the water that has accumulated from the digestion that has gone on in the rumen. The fourth chamber is the abomasum which similar in function to a human's stomach, and so is called the "true stomach."

Tasks

1. Scan the text.

2. Give the Russian equivalents for the words below:

млекопитающее, копыто, желудок, переваривать, безрогий, порода, стойла, травоядный, жвачное животное, рубец, книжка, сычуг.

3. Answer the following questions:

1. What are the cattle?
2. What are the three species of cattle?
3. What can you say about calves?
4. When were cattle domesticated?
5. What purposes are cattle used for?
6. Why are cattle called **herbivorous**?
7. What can you say about cow's stomach?

Grammar revision Degrees of comparison Exercises

1. Write the proper form of the adjectives and translate the sentences.

1. The Trans-Siberian railway is (long) in the world.
2. The twenty-second of December is the (short) day of the year.
3. Iron is (useful) of all metals.
4. The Neva is (wide) and (deep) than the Moskva River.
5. Elbrus is the (high) peak in the Caucasian mountains
6. This room is (small) than all the rooms in the house.
7. London is the (large) city in England.
8. This exercise is (good) than the last one.
9. Yesterday was the (hot) day we have had this summer.
10. The Battle for Stalingrad was the (great) battle of all times.

2. Choose the right adverb (degree of comparison) to complete the sentences.

1. Alice smiles even (most brightly / more brightly) than the sun.
2. The new teacher explains the rules (more completely / completely) than our book.
3. Jack arrived (latest / most late) at the airport.
4. Jillian usually climbs (highest / higher) of all the other climbers in her group.
5. Andrew is speaking even (more louder / louder) than usual.
6. Melody dances (most gracefully / more gracefully) of all the girls.
7. Of all three, Mike runs (fastest / faster).
8. Of all two, Mike runs (fastest / faster).

9. Harry swims (slower / slowest) of all the boys in the swimming team.

3. Use the correct form of the adverbs in brackets.

1. Unfortunately, it's becoming _____ (hard) and _____ (hard) to find a well-paid job.
2. This phrase is _____ (widely) used in spoken Russian than in written.
3. Your test isn't good. You can do _____ (well) than you did.
4. We walk _____ (fast) than usual to catch the train.
5. I know Daniel _____ (well) than you do.
6. I used to play tennis _____ (often) than now.
7. Could you move a bit _____ (far) away for me to sit here too?
8. Mary is driving _____ (slowly) than usual, as the road is wet.
9. Of all the group Jimmy did _____ (badly) in the examination.
10. Could you speak _____ (distinctly), please?

Useful words and word combinations

brisket – грудинка

crest – гребень

dewclaw – зачаток пятого пальца

dewlap – подгрудок

elbow – локоть

flank – бок, крыло

forerib – переднее ребро

hock – коленное сухожилие, поджилки

hoof – копыто

knee – колено

loin – поясница

muzzle – морда

paunch – брюхо

pins – крестец

poll – затылок

rump – охвостье

shank – голень

shoulder – плечо

thigh – бедренная кость

Text 2

Mature dairy cows

The period of maturity of a dairy cow lasts about 2.5 years. The gestation period in cows is known to last about nine months. The cow in calf should be dried off at least six weeks before calving. Dry period may vary in different cows. During this period the cow should be given plenty of roughages and some grain unless she is in good flesh or on good pasture. The more milk is drawn off from the cow's udder, the more will be secreted. That is why to dry off a cow the number of milking should be reduced to one daily at first and then she should be milked every other day.

About a week before the calving date wheat bran should be given to the pregnant cow. Bran is known to be a cooling and laxative feed. It is very desirable for the cow before calving. A warm, dry well – bedded stall should be provided for the cow at the time of calving. Calving being normal, no assistance is required. To know when each cow is to calve one must keep a breeding record, showing when cows were bred. Accurate dates of calving may be obtained only when hand mating is practiced.

The duration of lactation has been found to vary with the age of the cow, the breed and feeding. Also the lactation depends on the month of calving. For example autumn calving cows reduce their yield throughout the winter, but increase it in spring. In the case of a first calve it usually lasts about 8 to 10 months. Some high – yielding cows may produce milk for a year. The better the cow is fed and cared for the longer is the period of lactation.

In preparing rations for milking cows many factors should be considered. Rations are to provide carbohydrates in a readily available form, have the proper amount of good quality protein, provide sufficient fat and mineral matter and contain the necessary vitamins. To obtain high milk yields is the aim of every cattleman.

A dairy cow should be supplied with nutritious feeds. The more nutritious is the ration the more milk the dairy cow will produce. Unless dairy cows are fed the proper amount and kinds of feeds, they will not be provided with sufficient nutrients to produce high milk yields.

Tasks

1. Scan the text.

2. Choose the correct word. Translate the sentences without a dictionary.

1. The cow is dried off at least six weeks before (weaning, calving, milking).
2. The (digestion, duration, gestation) period in cows lasts about nine months.
3. Good feeding (increases, decreases) milk yields.
4. Carbohydrates should be in a (valuable, available) form.
5. Ration should provide (efficient, essential, sufficient) fat and minerals.
6. Little milk is produced by the cow if feeding and management conditions are (proper, improper, properly).

3. Answer the following questions:

1. When should the cow be dried off?
2. Why should the number of milking be reduced?
3. What is given to the cow a week before calving?
4. What does the duration of lactation vary with?
5. What should rations provide for dairy cows?
6. How long does the period of gestation last in cows?
7. What is given to the cow during the dry period?
8. How should the number of milking be reduced before the dry period?
9. What should be provided for the cow at the time of calving?
10. What must one know to obtain accurate dates of calving?
11. What is the aim of every cattleman?

4. Write an annotation to the text.

Text 3

Feeding dairy cow

A cow producing a large amount of milk needs more food than a low – milking cow. One should feed a heavy – yielding cow properly or she may lower her weight and will produce less milk. The rations for a dairy cow depend on the amount of milk produced by the cow and her live weight. Milk cow rations should be properly balanced. They should

include sufficient quantities of carbohydrates, protein, minerals and vitamins. Cows receiving improperly balanced rations, the milk yields will be decreased.

The more nutritious is the ration the more milk the dairy cow will produce. Unless dairy cows are fed the proper amount and kinds of feeds, they will not provide with sufficient nutrients to produce high milk yields.

A dairy cow is known to require a very liberal supply of water, 3 to 4 gallons of water being needed for each gallon of milk produced by the cow.

In spring and early summer when there is plenty of green grass no supplementary feed is necessary even for high – yielding cows. Later in summer when grass becomes scarce and indigestible some supplementary feed is required.

Pasture should be a part of the dairy cow's feeding program. Good pasture is likely to provide an abundance of carotene and other dietary essentials. Pasture supplies many of the essentials lacking in barn feeding and therefore prevents diseases. When cattle graze on pasture, reserves are built up which is carried over into the winter feeding period.

In winter high – quality hay, silage and root crops are the main feeds for dairy cows. Concentrates are supplied, depending on the quantity of milk produced by the cow.

Tasks

1. Read and translate the text.

2. Find the key sentences of the text.

3. Answer the questions:

1. What feeds should a dairy cow be supplied with?

2. What is necessary for the cow to produce high milk yields?

3. How should one feed a heavy yielding cow?

4. Does the ration of a dairy cow depend on the amount of milk and her live weight?

5. What substances should be included in the ration of dairy cows?

6. How many gallons of water are required for one pound of milk produced by the cow?

7. When are any supplementary feeds required for dairy cows?

8. What does good pasture provide dairy cows?

9. What feeds are necessary for dairy cows in winter?

4. In pairs, make up dialogues on:

- Management of dairy cow
- Winter feeding of dairy cow
- Summer feeding of dairy cow

Text 4

...

Bull of both dairy and beef breeds are seldom allowed to run with the cow herds during the entire year. After the breeding season is over they ought to be separated from the herd.

The best way of keeping the bull is to build a small barn with an adjoining paddock or pasture of 1 to 2 acres where he can exercise. The barn should be equipped with a stanchion to fasten the bull when it is necessary. Manger and water – supply are to be provided as well. The bull may be also kept in a box – stall inside the barn used for the entire herd. Being kept in this way, the bull may be fed and cared for with the rest of the herd. The barn should be well lighted and ventilated. It should be thoroughly cleaned every day.

If the bull is fed enough but not too liberally he will always be in vigorous condition but not fat. He should be provided with high – quality roughages such as legume or mixed hay and small amounts of silage. From five to ten pounds of grain mixture may be needed to keep the bull in thrifty condition. Salt and clean, fresh water should be available at all times.

The aim of every breeder is to have a large healthy and vigorous sire in the herd. If the bulls were not fed well balanced rations and if they were not provided with enough exercise, they would become too weak during the breeding season. Increased rates of feeding are to be provided for the bull for a month before the breeding season begins and during it to keep him in good breeding condition. It is advisable to use only purebred bulls, since they are known to transmit their characteristics to the calves.

In large herds some bulls are allowed to run with the cows. It is recommended, however, to separate the cows into groups of 25 to 30 and to provide one bull for each group. The smaller is the number of the cows in a group the better, since the percentage of mating will be higher

in this case. If the number of cows were very great the percentage of mating would be rather low and this is not profitable for the breeders.

Bull calves can be castrated at any time from a few weeks to 7 month of age. It is better, however, that they should be castrated before they are 4 months old. In any case the operation should not be delayed until 7 months. Steers 2 years of age are preferred for fattening on grass, because more finish can be put on them in a short period of time, as compared to younger cattle.

Tasks

1. Scan the text and choose the title for it.

- a) Cattle-breeding in England
- b) Bull management
- c) Feeding dairy cattle
- d) Large herds and small herds

2. Put questions to the sentences.

1. Bull of both dairy and beef breeds are seldom allowed to run with the cow herds during the entire year.
2. After the breeding season is over they ought to be separated from the herd.
3. The best way of keeping the bull is to build a small barn with an adjoining paddock or pasture of 1 to 2 acres where he can exercise.
4. The bull may be also kept in a box – stall inside the barn used for the entire herd.
5. The barn should be well lighted and ventilated.
6. The aim of every breeder is to have a large healthy and vigorous sire in the herd.
7. Increased rates of feeding are to be provided for the bull for a month before the breeding season begins and during it to keep him in good breeding condition.
8. Bull calves can be castrated at any time from a few weeks to 7 month of age.
9. Steers 2 years of age are preferred for fattening on grass, because more finish can be put on them in a short period of time, as compared to younger cattle.

Text 5

Systems of bull use and management

There are different systems of the management of a herd bull. Sometimes bulls are allowed to run with the cows during the breeding season (free-stall housing), the number of bulls depending on the number of the cows in the herd.

Some farmers keep their herd bulls in a small barn, turning, them out to the paddock adjoining the barn to take exercise. If bulls take enough exercise, they are usually in vigorous condition. During the breeding season the cows that are to be mated are brought to the bull. This system of breeding is found to be a better one because it allows having accurate dates of calving. In this case the breeders know when each cow is to calve.

Under both systems of management the bull ought to be fed and cared for properly. To give the bull legume hay and some grain is necessary in order to keep him in breeding condition. Silage should not be given to the bull in large amounts. Silage may be made from both legumes and grasses. Silage made from legumes will contain more protein than that made from grasses. Corn and sorghums make excellent silage.

Tasks

1. Scan the text.

2. In the text, find the synonyms for the following words:

stable, ox, cheerful, give birth to, stockman, grain, vegetable, to maintain.

3. Answer the questions.

1. What is the first system of using bulls?
2. What is the second system of keeping herd bulls?
3. What system is found to be a better one?
4. How do breeders know accurate dates of calving?
5. How should bulls be fed?
6. For how many cows is one bull usually provided?
7. When will the percentage of mating be higher?
8. What time is better for bull calves to be castrated?

4. Speak on advantage of the free-stall housing for bulls.

Unit IV

Pigs

Dialogue

N: Good morning, Mr. Paul! I am to write a report on pig-breeding. Will you help me?

P: Good morning, Norman! I'll help you with great pleasure. I have worked more than 20 years in this branch.

N: Thank you very much. How can I start my report?

P: Well, start with some simple things. Pig breeding is the raising and breeding of domestic pigs, a branch of animal husbandry. Pigs are the most precocious and prolific animals that give the highest yield of meat and lard.

N: Are the main products of pig breeding only meat and lard?

P: *No.* The main products of pig breeding are meat and lard, but also the skin used in the leather industry, the bristles – in the light industry, and the blood goes to the preparation of medicines and feed products.

N: It's interesting. What can you say about the history of domestication and origin?

P: Archaeological finds indicate that 12 700-13 000 years ago, wild pigs began to be domesticated in the Middle East. Initially, they were kept in a state of freedom, just as pigs are still kept in New Guinea. Remains of pigs dated as having lived more than 11,400 years ago were found in Cyprus. On the island, pigs could only get from the mainland, which involves traveling with humans and domestication. The first pigs were brought to Europe from the Middle East. This encouraged the domestication of European wild pigs, which led in a short time to the third important moment in the history of domestication - the displacement of breeds of Middle Eastern origin in Europe. Modern pigs have gone through several difficult stages of mixing with European domestic breeds, which in turn were brought in antiquity from Europe to the Middle East. Historical sources show that Asian pigs appeared in Europe during the 18th - early 19th centuries. High adaptability and omnivorous wild pigs allowed the primitive man to domesticate them very quickly. Pigs were bred primarily for meat, but also skins (for shields), bones (for making tools and weapons), and bristles (for brushes).

N: Thank you, you know a lot of things! Now I would like to write about the biological characteristics of pigs.

P: Let me think. In pigs, the muzzle is elongated, with a short movable proboscis, ending with a bare, flat "patch", which makes it possible to dig the earth in search of plant roots, worms and other food. Teeth are 44, including 4 strongly developed canines. The limbs are four-toed. The udder has 10-16 nipples arranged in 2 rows. Hair coat is rare, rough, mostly of bristles, Stomach is simple, single-celled. Animals are omnivorous, feed on plant and animal food.

N: What is the most common breed of pigs?

P: In the whole world there are about a hundred breeds of pigs. *For example, Large white, Landrace, Duroc, Karmal, Yorkshire etc.*

N: Please describe the breed of Duroc?

P: The American, red breed of pigs appeared at the end of the XIX century. Initially, it was assumed that pigs would be grown for bacon, but the growing demand for meat products changed the direction of selection. Today the main characteristics of Duroc pigs are:

excellent quality of meat;

early maturity;

endurance and the possibility of keeping in pasture conditions;

the ability to transfer their best traits to descendants, so the Duroc pig is actively used for hybridization.

N: Mr Paul, it is so kind of you to help me.

P: Glad that I could help.

Tasks

1. In pairs, act out the dialogue.

2. Match the translation of the phrases.

1 precocious and prolific animals	А щетина
2 meat and lard	В всеядный
3 bristle	С ранние и плодовитые животные
4 domestication of animals	Д зрелый
5 muzzle	Е мясо и сало
6 omnivorous	Ф разводить
7 maturity	Г морда
8 stomach	Н одомашнивание животных
9 breed	И порода

3. Find in the dialogue the sentences about:

- a) the main products of pig breeding
- b) about the history of domestication and origin
- c) the biological characteristics of pigs
- d) the most common breed of pigs

4. Comment Scheme 1. Use the phrases:

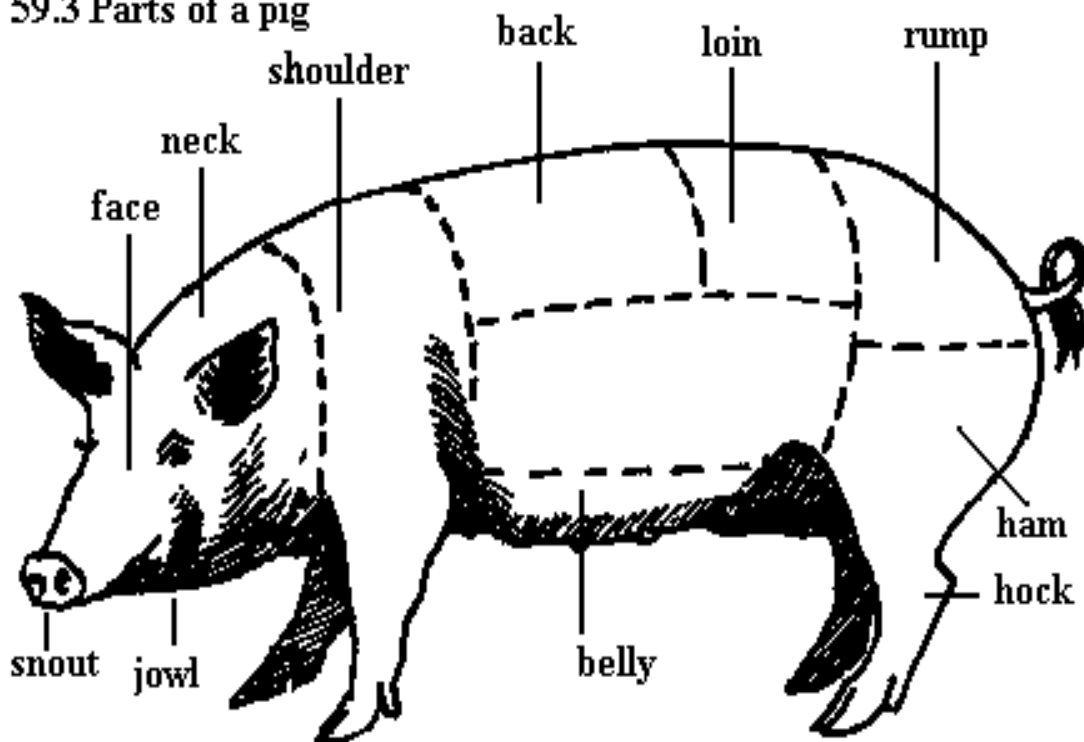
According to the scheme pigs have stomach ...

As the rumens are ...

The reticulum is

Scheme 1

59.3 Parts of a pig



Text 1

Hog breeding

Hog breeding is known to be a very important branch of animal husbandry. Hogs are bred for the production of bacon and pork. Best pork breeds of pigs produce pork at 4 to 5 months and bacon breeds at 6 to 7.5 months. Unlike the other farm animals hogs are rapid-growing ones. Hogs may be kept under the outdoor system, that is, on pasture, under the indoor system, that is, in pigsties or a combination of both. The hog breeders consider the last system to be the most effective one. The best place for keeping the pregnant sow or gilt is a pasture lot provided with a shelter to protect her from unfavourable weather. Every hogman knows exercise to be very important for sows. Locating the feed and water supply some distance from the shelter will make her take more exercise. Feed pregnant sows properly, for sows in thin condition will produce weak litters. Several days before farrowing the pregnant sow should be put in the farrowing pen. Some farmers are known to place sows in the farrowing pen just before farrowing in order not to restrict her exercise.

It is known that the sow and her litter are usually kept in-doors, where it is easier to provide the necessary care. Hog breeders want their sows to be healthy and prolific. Prolificacy and early maturity are highly important biological characters of hogs. If a sow is prolific and a good mother, she may be kept for breeding up to 5 years or longer.

The gestation period in sows lasting about 16 weeks, the sow may farrow twice a year. Weaning usually takes place 7 or 8 weeks after farrowing.

During the suckling period young pigs suck the same teat until they are weaned. That is why the smallest and the weakest pig in the litter should be put at birth to the gland that secretes most milk.

As to the selection of the boar it is not less important than that of the sow. The boar should be managed so that he always be in thrifty condition. Neither an over-fat boar nor a half-starved one is a satisfactory sire. Two weeks before the breeding season and during it the boar should be fed enough grain in addition to pasture to keep him in good breeding condition but not enough to make him fat. Grains may be fed either whole or ground. That the boar needs plenty of exercise is known to every breeder. Young boars in their first season of service are

mated to a maximum of about five females a week and 20 or 30 in the season, depending on the vigour, temperament, and other factors. Boars should not be used for breeding until they are about 10 months old. Young boars should be used as sparingly as possible, for excessive use may be the cause of small and weak litters.

Tasks

- 1. Read and translate the text.**
- 2. Fill in the gaps with the words:**

prolific litters, farrowing pens, suckling period, boar, pigsties

1. In winter sows and their ... are kept in... . 2. Pregnant sows are put into some days before farrowing. 3. During the breeding season the ... should be given some grain. 4. Unlike the other farm animals sows are highly... . 5. The in sows lasts about two months.

3. Answer the questions.

1. What are hogs kept for?
2. What systems of keeping hogs do you know?
3. How can we make sows take more exercise?
4. Where should the sow be placed some days before farrowing?
5. Why is it better to keep the sow and her litter indoors?
6. For how many years may a prolific sow be kept for breeding?
7. What gland should the weakest pig be put to at birth?
8. How should the boar be fed before and during the breeding season?
9. When should young boars be used for the first time?

4. Translate the following a) words and word combinations; b) sentences into English:

а) свиноводство, свиновод, свиноматка, супоросная свинья, хряк, опорос, закута для опороса, помет, плодовитая свинья, подсосный период, случка, ни ... ни, то есть, вот почему

б) 1. Мы хотим, чтобы свиноматки давали большие пометы. 2. Плодовитые свиньи используются для разведения пять или более лет. 3. Супоросных свиней содержат на пастбище. 4. В отличие от

коров, свиноматки очень плодовиты. 5. Свиньи сального типа, как известно, менее плодовиты, чем свиньи беконного типа. 6. Свиноводы знают, что содержание свиней даже на хороших пастбищах не обеспечивает их потребности в питательных веществах. 7. Поэтому животных подкармливают или концентрированными кормами, или силосом. 8. В подсосный период поросята быстро растут, при условии, если им дают все необходимые питательные и минеральные вещества. 9. Качество свинины изменяется в зависимости от возраста, породных особенностей животных, а также от вида корма.

5. Write an annotation to the text.

Grammar revision Modal verbs

Exercises

Exercise 1 Insert the modal verbs: may or can.

1. I ____ finish the work tomorrow if no one bothers me any more.
2. ____ we come and see you next Sunday at three o'clock in the afternoon?
3. What time is it? — It ____ be about six o'clock, but I am not sure.
4. Only a person who knows the language very well ____ answer such a question.
5. ____ I come in?
6. Let me look at your exercises. I ____ be able to help you.
7. I ____ not swim, because until this year the doctor did not allow me to be more than two minutes in the water. But this year he says I ____ stay in for fifteen minutes if I like, so I am going to learn to swim.
8. Libraries are quite free, and any one who likes ____ get books there.
9. I ____ come and see you tomorrow if I have time.
10. Take your raincoat with you: it ____ rain today.

Exercise 2. Choose a modal verb based on its meaning and context. Translate the sentences.

1. You (must, can) go to bed now.
2. She (may, should) read this book.

3. I (must, may) go home.
4. He (can, may) speak English.
5. The students (must, may) use a calculator at the Maths lessons.
6. My mother (can, should) cook many delicious dishes.
7. My father (must, can) drive a car.
8. Jack (can, must) play the guitar very well.
9. You (should, must) ask his advice.

Exercise 3. Fill in the blanks with modal verbs can, may or must.

1. What ____ we see on this map?
2. ____ you speak Spanish? — No, unfortunately I ____
3. At what time ____ you come to school?
4. ____ I come in?
5. You ____ not smoke here.
6. ____ take your book? — I am afraid not: I need it.
7. He ____ not speak English yet.
8. I have very little time: I ____ go.
9. They ____ not go to the park today because they are busy.
10. You ____ read this text: it is easy enough.

Exercise 4. Translate the beginning of the sentences using modal verbs.

1. Он должен ... _____ learn new English words.
2. Она умеет ... _____ play the guitar.
3. Людям следует ... _____ be careful when crossing the street.
4. Водителям не следует... _____ drive fast.
5. Ей разрешают ... _____ go to the cinema today?
6. Мне нельзя ... _____ come home late.
7. Я не умею ... _____ speak English well.
8. Детям нельзя ... _____ run here.
9. Им не разрешают ... _____ play computer games.
10. Тебе следует ... _____ try again.

Useful words

back – спина
 belly – брюхо
 ham – бедро

hock – коленное сухожилие
jowl – челюсть
loin – поясница
neck – шея
rump – крестец
shoulder – плечо
snout – морда (face)

Tasks

1. Translate the following sentences into Russian:

- 1) The snout (also called the nose) of the pig is located by the mouth.
- 2) The overall size of the ham can be evaluated during judging and varies breeds.
- 3) The rump includes the hip bones, tail, and portions of the ham.
- 4) The pork shoulder is the location of the boston butt and the picnic wholesale cuts of meat.
- 5) The size and placement of the tail can vary from breed to breed and pig to pig.
- 6) The hocks are located on the rear legs and are located just below the stifle muscle.
- 7) The jowl is located underneath the snout and is sometimes referred to as the pig's chin.
- 8) The belly and ribs are located just behind the shoulders and elbow pocket.
- 9) The neck is located just behind the ears and in front of the shoulder.
- 10) The loin muscle is located along the pig's back, on each side of its spine.

Text 2

Sow

In selecting sows and boars for the breeding herd it is best to take individuals from large litters. Having selected sows and boars from stock that is known to be prolific, the farmer can maintain a productive breeding herd.

Pregnant sows should be kept in good condition but not fat. Pasture grass that is rich in protein and essential minerals is ideal for pregnant sows. If good pasture is not available, grain or other protein – concentrated

feed may be used to provide a balanced ration. A mineral supplement is often good for sows and pigs. Sows tending to fatten excessively, the hograiser should feed them low energy ration.

Sows are usually placed in farrowing pens a few days before the pigs are born. The farrowing pens should be clean, dry and well ventilated. If farrowing takes place in very cold weather the sows and pigs need much more care and protection. At farrowing time the sow should be fed only water or thin slop for the first 24 hours. After the pigs are a day old she needs a small amount of feed and plenty of water. The feeding should be increased gradually and by the end of the week her ration should include feeds stimulating milk secretion: bran, peas, milk, etc.

Tasks

1. Scan the text.

2. Match the words with their definitions

1. boar a) a housing for pigs
2. gilt b) dried stalks of cereals used as feed and bedding
3. yard c) a male hog
4. hut d) to raise animals for slaughter
5. sty e) a place outside the farm building for animals' exercise and other farm activities
6. fatten f) a female pig that hasn't have progeny yet
7. straw g) a small house

3. Answer the questions.

1. Why is it best to take individuals from large litters?
2. Should pregnant sows be fat?
3. What feeds are used when good pasture is not available?
4. Is mineral supplement given to sows and pigs?
5. What ration is fed to the sows tending to fatten excessively?
6. When are sows placed in farrowing pens?
7. When do sows and pigs need more protection?
8. How is the sow fed at farrowing time?
9. What milk producing feeds does the ration of the sow include?

Text 3

Care of pigs

The first week of a pig's life is known to be especially critical. During this period due temperature, ventilation and sanitation in the pen are most important. Sometimes it is advisable to put newborn pigs in a warm place and bring them to their mother every two hours. In four or six hours they may be left with their mother.

Young pigs begin eating solid food at the age of 3 to 4 weeks. At this age they are fed a thin slop of milk, wheat middlings and oatmeal. As they get older they may be fed soaked shelled corn. The feed is usually given to them in a separate enclosure known as a creep. Due to the creep feeding little pigs may be fed the best feed.

Weaning pigs is usually done at 6 or 8 weeks of age. The best practice is to remove the sow from the pen, leaving the piglings in familiar surroundings. During the period of weaning the ration should be palatable and nutritious. More than 600 pounds of a balanced ration is required in feeding a pig from its weaning until it has a live weight of about 200 pounds.

Some hog men are known to raise pigs entirely on grain. For such pigs to develop normally a mineral supplement should be provided. The mineral mixture usually includes equal parts of steamed bone meal, ground limestone and common salt. A study has shown that

Young pigs require more iron and copper than it supplied in the sow's milk. That is why they eat some turf and soil. Pigs on good pastures require 10 to 15 per cent less feed than those raised without pastures. Proper management is important for success in hog raising. Careful attention during breeding, farrowing, and rearing the pigs to weaning helps raise a productive heard. The mortality of the young is much higher with swine than with other kinds of livestock. Since hogs live close to the ground they are subject to many parasites. The main task of the hog-breeder is to prevent diseases and parasites. Sanitation is therefore an important problem in hog raising. The rotational grazing is known to be the best way to prevent diseases and control parasites.

There are 2 types of swine - the lard and the bacon types. Pure lard breeds are the Poland, China, the Berkshire hog, the Hampshire, the Mirgorodskaya breed and others. The bacon types are the Large Yorkshire, the Large White breed, the Urzumskaya breed and others.

Tasks

1. Scan the text.
2. Divide the text into logical parts and make a plan.
3. Translate into Russian:

новорожденные поросята; через 3-4недели; пшеничные крупки; смоченные кукурузные зерна; загороженное место; кормление в столовой; привычная среда; период отъема; сбалансированный рацион; живой вес; минеральная добавка; выпаренная костная мука; дробленый известняк.

4. Put questions to the sentences.

1. Young pigs begin eating solid food at the age of 3 to 4 weeks. (When)
2. Weaning pigs is usually done at 6 or 8 weeks of age. (When)
3. More than 600 pounds of a balanced ration is required in feeding a pig from its weaning until it has a live weight of about 200 pounds. (How much)
4. The mineral mixture usually includes equal parts of steamed bone meal, ground limestone and common salt. (What ingredients)
5. Proper management is important for success in hog raising. (Yes/No)
6. Careful attention during breeding, farrowing, and rearing the pigs to weaning helps raise a productive heard. (Yes/No)
7. The main task of the hog breeder is to prevent diseases and parasites. (What)
8. There are 2 types of swine – the lard and the bacon types. (How many)

Writing

Write an essay about pig-breeding.

Unit V

Poultry farming

Dialogue

P: Hello. I am a journalist. May I ask you some questions?

B: Yes, of course.

P: What is the main task of poultry farming?

B: The main task of poultry farming is the breeding different types of poultry for obtaining high-nutritious foods (eggs, meat, fatty liver) and raw materials for processing (feathers, down, litter, incubation waste and slaughter).

P: I know that productivity is the main economically useful attribute of agricultural poultry, having a sufficiently high degree of variability.

B: Yes it is. The level, nature and qualitative aspect of productivity depend on hereditary factors (species, breed, line, cross, individual characteristics), age of the bird, and the conditions for its maintenance and use. To monitor the variability of productivity and manage it, it is necessary to systematically keep zoo-technical records and assess the productive qualities of the poultry.

P: Describe the productive qualities of agricultural poultry (egg production, fertility and hatchery, early maturity, meat quality, etc.)

B: The number of eggs that a female has been demolished within a certain period of time is called egg-laying. This is the main selectable attribute and the decisive indicator of egg productivity, not only the eggs of the egg direction (egg chickens, but for meat birds (meat chickens and ducks, turkeys, geese, guinea fowl, etc.), as it determines its fertility, that is, in the final analysis, the amount of meat obtained from the offspring of one female.

The second most important breeding feature is the mass of eggs. With the same egg-laying, the amount of total egg mass is different, which is reflected in the output of egg production and its cost.

P: If I rightly understand, it is like this: for example, if a chicken takes 300 eggs an average weight of 55 grams a year, the total egg weight will be 16.5 kg; with an average egg weight of 65 g and the same egg production, the total egg mass will be 19.5 kg, or 18% more.

B: Exactly.

P: What can you say about eggs fertility?

B: Fertility of eggs is expressed by the percentage of fertilized eggs from the number of incubations set for incubation. The indicator is determined during the transmission of eggs on the 6th-7th day of incubation. An egg, in which the developing embryo is not visible, is called unfertilized. However, fertilized eggs can also fall into this category, in which embryos died at the beginning of the incubation and are not visible in the case of translucence. The excretion of eggs depends on a number of factors, both hereditary and non-hereditary. The lack of necessary nutrients in the diet of the bird, prolonged or incorrect storage of eggs before incubation, poor transportation of them, and violation of the incubation regime – all this reduces the hatchability of eggs.

P: That's very important. I'd like to get some information about poultry meat. Meat is one of the vital food products, serving as a source of high-grade proteins and animal fat, as well as minerals and vitamins.

B: Well... Meat production is characterized by the live weight and meat qualities of the poultry at the slaughter age, as well as the nutritional value of meat. The most economical objects are meat producers – young hybrid birds (broilers), obtained from the crossing of specialized combining lines of hens of meat and meat-meat breeds. In the total balance of world production of poultry meat, the share of broiler meat is about 80%, adult chickens – 10, turkeys – 10, birds of other species – less than 5%.

P: Thank you very much for the information.

Tasks

1. Match the translation of the phrases.

1 breeding	А продуктивность, производительность
2 down	В производство яиц
3 feather	С инкубация
4 productivity	Д плодовитость
5 egg production	Е мясо и сало
6 fertility	Ф перо
7 incubation	Г яйцекладка
8 egg-laying	Н масса яиц
9 mass of eggs	І пух

3. Find in the dialogue the sentences about:

- a) the main task of poultry farming;
- b) about the productive qualities of agricultural poultry;

c) about the excretion of eggs

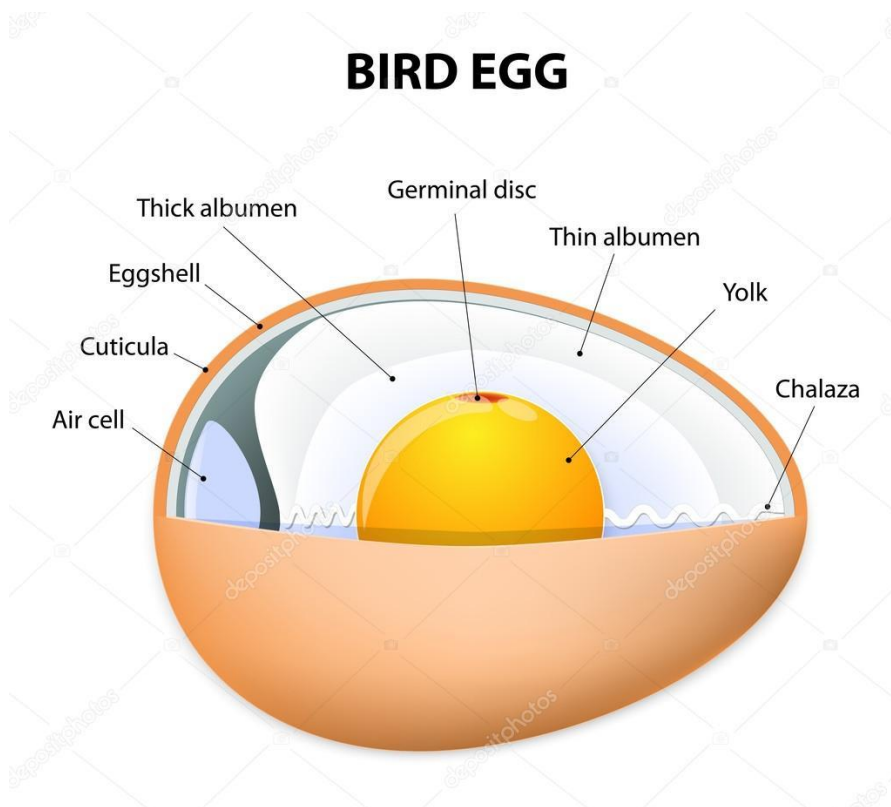
4. Develop the idea:

- a) The main task of poultry-farming is ...
- b) Egg-laying is ...
- c) Eggs fertility is ...
- d) The following factors can reduce the hatchability of eggs: ...

5. Comment Scheme 1. Use the phrases:

According to the scheme bird egg consists of ...
The first (second, ...) layer is

Scheme 1



Useful words and word combinations

air cell – воздушная камера

chalaza – халаза

cuticula – кутикула

eggshell – яичная скорлупа

excretion of eggs – выведение яиц

germinal disk-зародышевый диск
hatchery – инкубатор
hereditary factor – наследственный фактор
incubation – инкубация
poultry – домашняя птица
thick albumen – толстый белок
thin albumen – тонкий белок
translucence – прозрачность
violation – нарушение
yolk – желток

2. Translate the following sentences into Russian:

- 1) The bird egg is a fertilized gamete (or, in the case of some birds, such as chickens, possibly unfertilized) located on the yolk surface and surrounded by albumen, or egg white.
- 2)The structure and composition of the avian eggshell serves to protect the egg against damage and microbial contamination.
- 3)The cuticle forms the final, outer layer of the eggshell.
- 4)The chalaza is a structure inside bird and reptile eggs and plant ovules. It attaches or suspends the yolk or nucleus within the larger structure.
- 5)The germinal disc, also called the blastodisc, is a small, circular, white spot (approximately 2-3 mm across) on the surface of the yellow yolk of a bird's egg.

Grammar revision

Numerals

Exercises

1. Write the following cardinal numerals with letters and make the corresponding ordinal numerals.

1; 2; 3; 4; 5; 11; 12; 14; 15; 21; 25; 28; 30; 52; 67; 74; 83; 99; 100.

2. Read the following phrases:

1)150 magazines; 1800 students; 2000 dollars; 12000 specialists; 5640000 books;

- 2) on page 546; by bus 287; in room 819; 7 o'clock train;
3) hundreds of students; dozens of shops; millions of peoples; thousands of dollars.

3. Read the dates correctly.

1. May 9, 1945
2. August 24, 1991
3. September 1, 2004
4. December 31, 2005
5. on the 1st of January;
6. on the 23rd of February;
7. on the 8th of March;
8. on the 5th of May.

4. Choose the correct form.

1. My daughter is still a teenager. She is only fifteen/fifty.
2. He knew it was a painting worth \$10 million/millions.
3. Three hundred/Three hundreds people gathered at the stadium.
4. In the section 2/section 2 we also suggest other topics that need to be researched.
5. The first battle of the American Revolution was fought in year/the year 1775.
6. Hundred/A hundred years ago the principal means of communication was by post and telegraph.
7. How many children are there in the school? About three hundred/three hundreds.
8. The report has got over five hundred/five hundreds pages.

5. Write the correct ordinal number.

1. Saturday is the _____ day of the week.
2. The _____ month of the year is June. .
3. The _____ month of the year is March.
4. In a competition the gold medal is for the _____ place and the silver medal is for the _____ place.

6. Write in letters fractional numerals.

Example: $1/2$ – a half (one half)

1. $2/3$
2. 6.51
3. $1\ 3/4$
4. 0.02
5. $2\ 1/5$

7. Convert quantitative numerals to ordinal numbers.

Ex: one is the first, thirty is the thirtieth, sixty-four is the sixty-fourth (sixty-fourth)

two

eighty-three

seven hundred and sixteen

twelve

eleven

twenty-five

ninety-six

thirty-eight

Text 1

System of poultry keeping

There are 4 main species of domesticated poultry: fowls, ducks, geese and turkeys.

Fowls are kept for the production of eggs, breeding and the production of table birds. Egg productions being the main aim, birds are generally kept for one or at the most 2 laying seasons. It is during their pullet or first year that hens lay most eggs. On the average 150-160eggs per hen per year are obtained though individual birds are known to have laid 200 eggs and more per year.

There exist different systems of poultry keeping. Intensive system is the one when birds are kept indoors all the year round. This system is likely to be practiced near large towns where land is limited. When semi – intensive system is used, birds are restricted to a certain area of land. The houses should be large enough to keep birds intensively during bad weather. There is also a free range system when unlimited pastures are allowed. Portable houses are used in this case. Often birds are confined in

separate cages during the laying period. This system is known as laying batteries. The floor of the cage has a gentle slope forward, thus allowing the eggs to roll out of the cage. Under this system birds have been found to give good results.

The method of feeding varies with the system of management, birds on free range requiring less food, especially of a protein nature, than those kept under intensive condition.

The ration of a laying hen consists of crushed or whole grain, mixture of meal or mash and other vitamin feeds. Mash is known to be fed either dry or wet. Normally a hen will consume 4-5 ounces of food per day during the period of egg laying. This may be made up of half grain and half mash. Grain should be given in two feeds one in the morning and the second in the evening. Mash can be given either as one feed of wet mash in the middle of the day or as dry mash in hoppers that are open all day. Green food is essential for hens kept under intensive and semi-intensive systems. Crushed limestone should be supplied as well to provide calcium, because it is this element that is necessary in making egg shells, Since eggs are 63 % water, clean, fresh water should be available at all times.

Tasks

1. Match the appropriate words in the right and left columns:

- | | | |
|-----|-----------|----------------|
| 1. | breakdown | a) содержать в |
| 2. | delay | помещении |
| 3. | house | b) лечить |
| 4. | impose | c) содержать, |
| 5. | treat | управлять |
| 6. | occur | d) становиться |
| 7. | manage | e) начинать |
| 8. | contain | f) налагать |
| 9. | begin | содержать (в |
| 10. | become | g) составе) |
| | | h) происходить |
| | | i) откладывать |
| | | j) ломать (ся) |

2. Match the Russian verbs with their English equivalents:

I. содержать, разводить	1. manage
II. использовать	2. occur
III. регулировать	3. become
IV. содержать, управлять	4. ensure
V. происходить	5. keep
VI. распространяться	6. begin
VII. ухаживать, заботиться	7. care
VIII. обеспечивать	8. spread
IX. становиться	9. use
X. начинать	10. regulate

3. Make up the sentences

- | | |
|--|---|
| 1. hens lay eggs | a) birds are confined in separate cages |
| 2. intensive system of poultry keeping | b) half grain and half mash |
| 3. there is a certain area of land for birds | c) for making shells kept |
| 4. under the system of laying batteries | d) is fed in hoppers |
| 5. crushed limestone should be supplied | e) under semi-intensive system |
| 6. daily hen's food consist of | f) in the pullet year |
| 7. dry mash | g) is practiced near large towns |

Text 2

Hatching and chicken rearing

There are 2 main methods of hatching: the natural method, that is, by means of a broody hen and the artificial one by means of incubators.

Incubators may be of the hot-air or hot-water type. Care should be taken in the selection of eggs for incubation. They should be of average size and proper shape. Neither badly shaped eggs nor those with very rough or thin shells should be chosen. Eggs for incubation should be clean and as fresh as possible. They should never be kept for longer than one

week before setting. The fresher are the eggs the better, since the percentage of hatching will be higher in this case. The temperature and humidity in incubators are regulated automatically. It is important that ventilation should be provided.

Chickens may be reared either by a broody hen or in various types of brooders. Battery brooders are widely used on big poultry – breeding farms because of their being adapted for large – scale rearing over a long period. They consist of a series of compartments one on top of the other and all are heated by the same heating apparatus.

Being 8 weeks old, cockerels are to be separated from pullets and if they are not to be kept for breeding purposes, they should be fattened up. The pullets are removed to their permanent laying quarters when they are 4 to 5 months old.

No food is required for chicks for chicks for 24 hours after hatching. But they should be given warm water or milk and fine grits. Many different systems of feeding chicks are practiced. The most common and successful one is to feed dry mash in hoppers opened all day long or shut periodically. In addition 2 feeds of grain are given to them, one in the morning and the second in the evening. It is necessary that chicks should have a free access to water as well.

Young meat chickens at about 6 or 7 weeks are referred to as “broilers”. The quality of meat at this stage is excellent. High-quality broiler meat is achieved due to their being fed with high-protein or high-energy rations.

Tasks

1. Read and translate the text.

2. Answer the questions.

1. What are the two methods of hatching?
2. What types of incubators do you know?
3. What eggs should be chosen for incubation?
4. Is the temperature in incubators regulated automatically?
5. How may chickens be reared?
6. When are cockerels separated from pullets?
7. What are chickens given after hatching?
8. What is the most common method of feeding chickens?
9. What is a broiler?
10. What is the way of achieving high-quality broiler meat?

3. Translate the following sentences into English:

1. Имеется много типов инкубаторов.
2. Инкубаторы используются для выведения цыплят.
3. Цыплята выращиваются в различных типах брудеров.
4. Петушков отделяют от молодок в возрасте 8 недель.
5. Бройлеры – это мясные цыплята в возрасте 10-12 недель.
6. Бройлеры содержатся на глубокой подстилке.
7. Очень важно, чтобы цыплята имели свободный доступ как к корму, так и к воде.

4. Write an annotation to the text.

Speaking

Use extra material and make a report. Topics for choosing:

1. Poultry industry in Russia
2. Poultry industry abroad
3. Healthy qualities of poultry meat

Unit VI

Meat

Dialogue

- Meat is one of the most essential products, I'm sure. I am interested in meat preservation and storage.
- Well, meat preservation helps to control spoilage by inhibiting the growth of microorganisms, slowing enzymatic activity and preserving the oxidation of fatty acids that promote rancidity.
- I quite agree with you. But what factors influence the storage of meat?
- Lots of them. Among them are physical state of meat, chemical properties of meat, such as pH and moisture content, then ...
- I can add natural protective tissues that can prevent microbial contamination, dehydration or other undesirable changes.
- That's true.
- What methods of meat preservation do you know?
- Let me think ... Cold storage, freezing, vacuum packaging, canning, drying, fermentation, smoking.
- By the way, is there any difference between cold storage and freezing?
- There is, of course. Temperature is the most important factor influencing bacterial growth. Pathogenic bacteria do not grow well at temperature under 3°C. Therefore, meat should be stored at temperatures that are as cold as possible.
- What is the typical refrigerated storage life for fresh meat?
- About 5-7 days.
- This is cold storage. And what about freezing? Isn't it the same?
- No. The storage life of fresh perishable foods such as meats, fish, fruits, and vegetables can be extended by several days by cooling, and by several weeks or months by freezing. The rate of freezing is very important in maintaining meat quality, rapid freezing being superior. It is important to note, however, that freezing does not kill most microorganisms; they simply become dormant.
- What is the freezing temperature?
- About 18°-34°C below zero.

Tasks

1. In pairs, act out the dialogue.
2. Match the translation of the phrases.

1) сохранение	A inhibition
2) порча	B enzymatic activity
3) подавление, сдерживание	C rancidity
4) прогорклость	D moisture content
5) содержание влаги	E preservation
6) обезвоживание	F smoking
7) копчение	G spoilage
8) ферментативная активность	H dehydration

3. Read the words correctly.

Microbial [maɪ'krəʊbiəl], dehydration [di:'haɪ'dreɪʃn], undesirable ['ʌndɪ'zɑɪərəbl], vacuum ['vækjʊəm], tissue ['tɪʃu:], enzymatic activity [enzai'mætɪk æk'tɪvɪtɪ], oxidation [ɒksɪ'deɪʃn], microorganism ['maɪkrəʊ'ɔ:gənɪzəm].

4. Choose the correct explanation for the terms.

1 – smoking; 2 – cold storage; 3 – fermentation; 4 – freezing; 5 – canning; 6 – drying; 7 – vacuum packaging

- a) a place that is kept very cold, where you put food to keep it fresh
- b) a method of meat preservation which preserves it from the time it is prepared to the time it is eaten. It slows down decomposition by turning residual moisture into ice, inhibiting the growth of most bacterial species.
- c) wrapping food using a process in which all the air is removed.
- d) a method of preservation in which food is placed to a metal container without air.
- e) removing the water from food
- f) this process typically involves the introduction of bacteria or yeast that convert certain meat nutrients into mixtures of carbon dioxide and alcohol. This process can both increase the flavor intensity and prevent the end product from spoiling for relatively long periods of time.

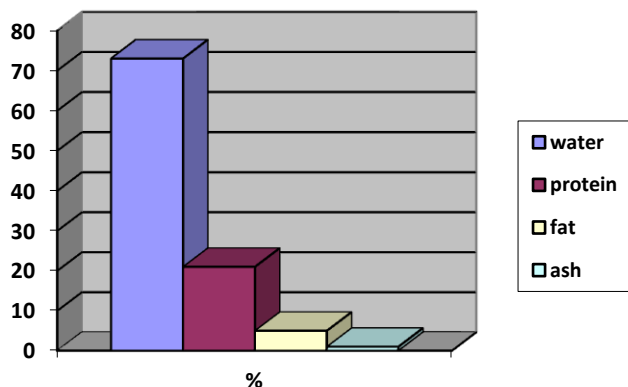
g) preserving and giving flavor to fish or other food by hanging it in smoke.

5. Comment the diagram. Use the phrases:

- 1) Regardless of the animal, lean muscle usually consists of the same components.
- 2) According to the diagram we can say that lean meat consists of ...
- 3) ... holds the leading position. It accounts for ... (covers ...)
- 4) The next is ...
- 5) Its share is ...
- 6) And the last position is occupied by ...
- 7) Comparing all these data we can come to the conclusion that ...
- 8) In conclusion it should be said that these figures vary. Generally, as fat increases, the percentage of protein and water decreases.

Lean meat composition

Meat content	%
water	73
protein	21
fat	5
ash	1



**Text 1
Meat industry**

The term “meat industry” describes modern industrialized livestock agriculture for production, packing, preservation and marketing of meat (in contrast to dairy products, wool, etc.). In economics, it is a fusion of primary (agriculture) and secondary (industry) activity and hard to

characterize strictly in terms of either one alone. The greater part of the entire meat industry is termed meat packing industry – the segment that handles the slaughtering, processing, packaging, and distribution of animals such as cattle, pigs, sheep and other livestock.

A great portion of the ever-growing meat branch in the food industry involves intensive animal farming in which livestock are kept almost entirely indoors or in restricted outdoor settings like pens.

Many aspects of the raising of animals for meat have become industrialized, even many practices more associated with smaller family farms, e.g. gourmet foods such as foie gras.

The production of livestock is a heavily vertically integrated industry where the majority of supply chain stages are integrated and owned by one company.

Tasks

1. Scan the text.

2. Find in the text, the sentence which explains the term “fusion” and translate it.

3. Answer the questions.

- 1) What is food industry?
- 2) What does meat packing industry handle?
- 3) What does intensive animal farming mean?
- 4) What dominates in meat industry: large industrialized enterprises or smaller family farms?

4. Comment the table. Use the following phrases:

1. This table represents (shows, gives data on, deals with ...)
2. The information is arranged horizontally in rows and vertically in columns.
3. The table tells us how much (many) ...
4. As you can see from the table the leader in ... was ... in 2015.
5. It produced ...that accounted for ...% of the world beef production for that period.
6. The next was ...
7. Its share was ...
8. Comparing all these data we can come to the conclusion that ...

World beef production

WORLD 58,443,000		
COUNTRY	METRIC TONS (2015)	% OF WORLD
United States	10,861,000	18.58
Brazil	9,425,000	16.13
European Union	7,540,000	12.90
China	6,750,000	11.55
India	4,200,000	7.19
Argentina	2,740,000	4.69
Australia	2,550,000	4.36
Mexico	1,845,000	3.16
Pakistan	1,725,000	2.95
Russia	1,355,000	2.32

Grammar revision Participles

Exercise 1. Compare the sentences with Participle I and Participle II. Translate them.

1. A letter sent from St. Petersburg today will be in Moscow tomorrow. 2. He saw some people in the post office sending telegrams. 3. When sending the telegram, she forgot to write her name. 4. Some of the questions about organic animal production put on the summit were very important. 5. The meat processing equipment was delivered from Canada. 6. While putting the eggs into the basket, she broke one of them. 7. A fish taken out of the water cannot live. 8. A person purchasing organic meat takes care of his health. 9. Taking a dictionary, he began to translate the text. 10. A line seen through this crystal looks double. 11. A teacher seeing a mistake in a student's term paper always corrects it. 12. Opening a new meat-packaging enterprise the region solves the problem of employment.

13. The word said by the student was not correct. 14. The man standing at the door of the train carriage and saying goodbye to his friends is a well-known scientist. 15. Standing at the window, she was waving her hand. 16. A word spoken in time may have very important results. 17. The students speaking good English must help their classmates. 18. The speaking doll interested the child very much. 19. While speaking to Nick some days ago, I forgot to ask him about his new job.

Exercise 2. Choose the correct variant.

- 1) The girl (writing, written) on the blackboard is our new technologist.
- 2) Everything (writing, written) here is quite right.
- 3) We listened to the girls (singing, sung) Russian folk songs,
- 4) We listened to the Russian folk songs (singing, sung) by the girls.
- 5) The company (delivering, delivered) sausages and bacon is well-known in the region for its high food quality.
- 6) Meat products (delivering, delivered) by this company looked very good.
- 7) Who is that boy (doing, done) his homework at that table?
- 8) The exercises (doing, done) by the pupils were easy.
- 9) (Canned, canning) products can safely be stored at room temperature for long time.
- 10) Read the (translating, translated) sentences once more.
- 11) Name some places (visiting, visited) by you last year.
- 12) I picked up the pencil (lying, lain) on the floor.
- 13) She was reading the book (buying, bought) the day before.
- 14) Yesterday we were at a conference (organizing, organized) by the meat company.
- 15) Meat grading divides meat into classes (depending, depended) on (expecting, expected) eating quality.
- 16) In the USA (raising, raised) cattle primarily for the production of steaks American farmers fatten animals with high-quality grain feed.
- 17) Some of the characteristics of meat (using, used) to assess quality and assign grade include: conformation of the carcass, thickness of fat, colour, texture and firmness of the lean meat.
- 18) Here is the letter (receiving, received) by me yesterday.
- 19) Do you know the price (paying, paid) for the new refrigerator?
- 20) The book (writing, written) by this scientist is very interesting.
- 21)

- 22) Translate the words (writing, written) on the blackboard.
- 23) We could not see the sun (covering, covered) by dark clouds.
- 24) The (losing, lost) book was found at last.
- 25) (Going, gone) along the street, I met Mary and Ann.

Exercise 3. Use the proper form of the Participle I (Perfect or Non-Perfect).

1. (to do) his report on meat grading, he was using lot of information from the Internet. 2. (to do) his report, he went for a walk. 3. (to sell) fruit, he looked back from time to time, hoping to see his friends. 4. (to sell) all the fruit, he went to see his friends. 5. (to eat) all the potatoes, she drank a cup of tea. 6. (to drink) tea, she thought of the coming picnic. 7. (to run) a new equipment I read the instruction very attentively. 8. (to look) through some magazines, I came across an interesting article about UFOs. 9. (to write) out and (to learn) all the new words, he was able to translate the text easily. 10. (to live) in the south of our country, he cannot enjoy the beauty of St. Petersburg's White Nights in summer. 11. (to talk) to her manager in meat processing shop she did not notice how workers new produce into the refrigerators. 12. (to read) the story, she closed the book and put it on the shelf. 13. (to buy) some juice and cakes, we went home. 14. (to sit) near the fire, he felt very warm.

Exercise 4. Use the proper form of the Participle I (Active or Passive).

(to write) in very bad handwriting, the letter was difficult to read. 2. (to write) his first book, he could not help worrying about the reaction of the critics. 3. (to spend) twenty years abroad, he was happy to be coming home. 4. (to be) so far away from home, he still felt himself part of the family. 5. She looked at the enormous bunch of roses with a happy smile, never (to give) such a wonderful present before. 6. (not to wish) to discuss that difficult and painful problem, he changed the subject. 7. (to translate) by a good specialist, the article about organic meat production was very useful. 8. (to approve) by the critics, the young author's article was accepted by a well-known scientific journal. 9. The oxidation of unsaturated fatty acids (to minimize) by vacuum packaging, the meat was in good state. 10. (to freeze) meat the technologists maintain meat quality. 11. (to feed) properly the cows give good weight gain.

Useful words and word combinations

bacon – бекон
beef – говядина
canning – консервирование
chicken – цыпленок
cold storage – холодное хранение
drying – сушка
fermentation – брожение, ферментация
foie gras [fwa: gra:] – гусиная печень
freezing – заморозка
gourmet foods – деликатесы
intensive animal farming – интенсивное животноводство
lamb – мясо молодого барашка, ягнятина
lard – сало
meat industry – мясная промышленность
mince – фарш
packaging – упаковка
pen – загон
pork – свинина
preservation – сохранение
processing – переработка
protective tissues – защитные ткани
sausage – колбасное изделие
slaughtering – забой скота
smoking – копчение
spoilage – порча
storage – хранение
to handle – заниматься, контролировать, регулировать
to maintain meat quality – поддерживать качество мяса
vacuum packaging – вакуумная упаковка

Tasks

1. Find in the list of words:

- a) methods of meat processing;
- b) types of meat

2. Make up phrases.

Cattle-breeding Sheep-raising Poultry-farming Hog production	provides population with	pork mince beef chicken meat lard bacon mutton goose meat duck meat
---	-----------------------------	---

3. Listen to the dialogue and fill in the blank.

For help: do you want; steak, meat, beef; good; piece; doesn't; the truth; chicken (2).

- Do you want any ... today, Mrs. Bird?
- Yes, please.
- ... beef or lamb?
- ..., please.
- This lamb is very ...
- I like lamb, but my husband ...
- What about some ...? This is a nice ...
- Give me that piece, please. And a pound of mince too.
- Do you want a ..., Mrs. Bird? They are very nice.
- No, thank you. My husband likes steak, but he doesn't like chicken.
- To tell you ..., Mrs. Bird, I don't like ... either.

Text 2

...

There are different kinds of meat. It's prepared in many ways, as steaks, in stews, fondue, or as dried meat. It may be ground then formed into patties, loaves, or sausages. But the main distinction is made according to the animal it was made of.

The meat of a lamb is taken from the animal between one month and one year old, with a carcass weight of between 5,5 and 30 kilograms. This meat generally is tenderer than that from older sheep.

Poultry is the category of domesticated birds which some humans keep for the purpose of collecting their eggs, or kill for their meat and/or

feathers. The meatiest parts of a bird are the flight muscles on its chest, called breast meat, and the walking muscles on the first and second segments of its legs, called the thigh and drumstick respectively.

Chicken is the meat derived from the chicken. It is the most common type of poultry in the world. Typically, the muscle tissue (breast, legs, thigh, etc.), livers, hearts, and gizzard are processed for food. Chicken feet are commonly eaten, especially in French and Chinese cuisine.

The flesh from the cattle over 6 months of age is beef and from younger cattle is veal. Beef is a nutritious food having approximately 25% protein and rich in essential acids, B vitamins, and minerals.

The primary products of swine are pork, lard, hides, and innumerable by-products. Pork is more successfully cured and stored than any other meats.

Fresh red meats are refrigerated. Cured meats such as ham, bacon, and sausage contain chemical preservatives (salt, nitrate, nitrite) but are, in addition, heat processed and stored under refrigeration. Fresh and cured meats are also canned. With severe heat processing a shelf-stable product is produced. In certain products stability is achieved in part through other processes: fermentation, drying, smoking and impregnation with vinegar.

The manufacture of meat products includes those processes which prepare the product for consumption and increase the stability, improve the texture, colour and appearance of various meat items. Various processes are employed depending upon the desired result. Various enzymatic agents and other additives are often used.

Tasks

1. Read and translate the text.

2. Give the title for the text.

3. Answer the questions.

1. What are the primary products made from meat?
2. How can beef be defined?
3. What is the difference between beef and veal?
4. What shelf-stable meat products have you learnt?

4. Translate the following:

– carcass weight

- domesticated birds
- flight muscles
- breast meat
- muscle tissue
- chicken feet
- primary products
- innumerable by-products
- fresh red meats
- stored under refrigeration
- severe heat processing
- shelf-stable product
- impregnation with vinegar
depending upon the desired result

5. Complete the sentences using the words.

Ham, sausage, veal, stored, preservatives, shelf-stable, bacon, canned

1. The flesh of young cattle is called_____.
2. Due to the heat processing a _____ product is produced.
3. _____, _____ and _____ belong to the group of cured meats.
4. To prolong the shelf life of the products manufacturers add _____.
5. _____ meat can be _____ for several years.

6. Find key sentences for retelling the text.

Text 3
Sausage making

The origins of meat preservation are lost to the ages but probably began when humans began to realize the preservative value of salt. Sausage making originally developed as a means to preserve and transport meat. Primitive societies learned that dried berries and spices could be added to dried meat. By 600-500 BC there is mention of sausages from China, Rome and Greece. The procedure of stuffing meat into casings remains basically the same today, but sausage recipes have been greatly refined and sausage making has become a highly respected culinary art.

Sausages come in two main types: fresh and cured. Cured sausages may be either cooked or dried. Most cured sausages are smoked, but this is not mandatory. The curing process itself changes the meat and imparts its own flavors. An example is the difference in taste between a pork roast and a ham.

All smoked sausages are cured. The reason is the threat of botulism. The bacterium responsible, *Clostridium botulinum*, is ubiquitous in the environment, grows in the anaerobic conditions created in the interior of the sausage, and thrives in the 4 °C (39 °F) to 60 °C (140 °F) temperature range common in the smoke house and subsequent ambient storage. Thus, for safety reasons, sausages are cured before smoking.

Tasks

1. Read and translate the text.

2. In pairs, complete the dialogue on the basis of the text.

- What do you know about meat preservation?
- Well...
- I wonder, where and when the first mention about ...appear?
- Let me think, ...
- I'm sure ... culinary art.
- It goes without saying. Do you know two main types of sausages?
- ... What is the reason for ...?
- Well, the reason is threat of ...
- I see.

Text 4

Sausage making equipment

Equipment depends on scale, a small home grinder and some basic measuring tools may be all that is required. In a larger scale commercial operation, more high volume equipment will be required.

Regarded as the three most important pieces of equipment, regardless of the amount of sausage being made are an accurate thermometer, a calibrated scale, and a meat grinder. Smoked or smoke/cooked sausages require a smoker (small batches) or a commercial smokehouse. Emulsion-type cooked sausages, such as frankfurters or bologna, use a bowl chopper

to make finely ground meat batter that is put into casings and cooked or smoked.



Task

Comment the picture.

Speaking

Using extra material make a report. The topic: “Useful properties of different kinds of meat”.

Unit VII

Milk

Dialogue

Pat Bishop, the journalist is interviewing Nick Harrington, a business expert in agriculture.

- Well, Mr. Harrington, our readers are interested in dairy business. What should the beginner know about it?
- OK, to start with, I must say that a milk plant is a place, premises where milk is collected, processed, stored, pasteurized, packaged and prepared for supply.
- If I understood correctly, it is the whole complex. Any milk processing plant must have license for it.
- Quite right. In this license, a milk processing plant may prefer to process milk and milk products. There are many dairy business plants all over the world.
- But the whole process starts in dairy farms which have cattle such as cows, buffaloes and goats for milking purposes. The initial process starts here.
- It goes without saying. The proper milk production is very vital in the dairy farm. Dairy cows are milked 2 times a day in all dairy farms. After that, milk is transferred to big refrigerated milk tanks. These milk tanks are collected by big trucks that transport the product to the milk processing plants.
- I see. How the process further is organized?
- Milk is initially dumped in big milk tank from the milk tankers. After that it is chilled in a chilling unit. This chilled milk is pasteurized in the milk pasteurizer and cream is separated from the cream separator which gets skimmed milk.
- There are lots of dairy products like ghee [gi:], cream, butter, evaporated milk and skimmed milk that are also manufactured in milk plant. I'd like to know about milk clarification.
- In the milk processing plants, the product is separated from bacteria that it is perfect for use. This procedure is well-known as clarification.
- Thank you. I know that heat is also used.
- Certainly, the process involves heating the product to destroy the remaining bacteria present in it. The product is heated and passed all the way through steel pipes in procedure of pasteurization.

- I know that the next step is homogenization that eliminates fat from the product.
- I quite agree with you. The product is heated to decrease the fat particles that present in it. Without the procedure of homogenization, fat particles would float over the milk. Therefore, these processes are very helpful for milk processing business and also for plants.
- What can you say about types of milk enterprises?
- According to capacity of milk processing plants, they are small, medium and big. These use different types of milk processing equipment according maximum milk capacity per day.
- It's very interesting. Next time I'd like to get some information about the latest or modern technology that has become the symbol of success in all businesses, if you don't mind.
- With pleasure. Nowadays, the dairy industry has become one of the major food industries in all over the world. If you are running or managing milk processing plants then it is wake up signal for you to use modern technology. Next time we shall visit one of the leading milk complexes of the region and you'll see everything.
- Thank you.
- That was a pleasure.

Tasks

1. In pairs, act out the dialogue.

2. Match the translation of the phrases.

эксперт по бизнесу	to milk
помещения	business expert
ДОИТЬ	chilling unit
МОЛОКОВОЗ	milk tanker
ТОПЛЕНОЕ МАСЛО	capacity
ОХЛАДИТЕЛЬ	premises
МОЩНОСТЬ, ПРОПУСКНАЯ СПОСОБНОСТЬ	ghee

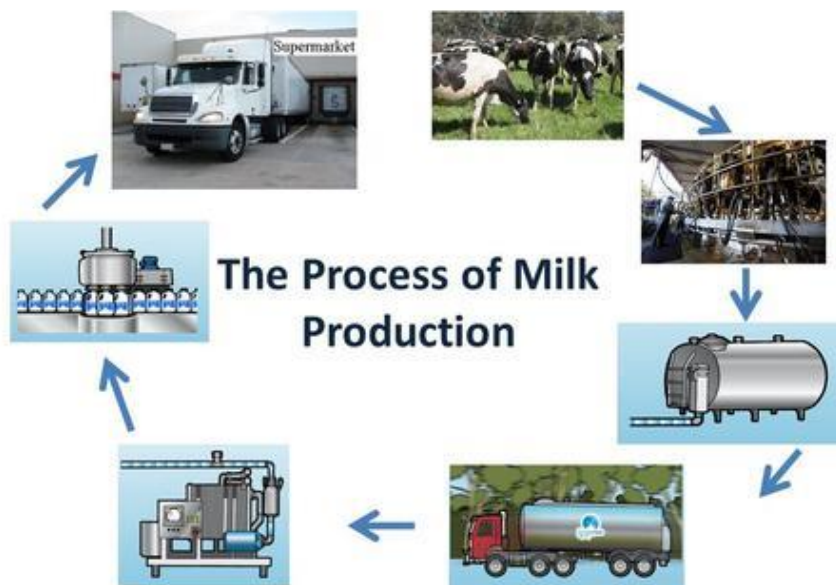
3. In the dialogue, find the words which mean the main processes on the dairy farm and milk plant. Put them in the correct order.

1. Milking a cow

2. ...

(for ideas: milking, transferring to big refrigerated milk tanks, transportation by big tanks to the milk processing plants, pumping milk

into special tanks, separation and clarification procedure, heating and pasteurization, homogenization, packaging the product in cartons and plastic bags).



4. Comment the scheme.

Use the phrases:

This scheme presents the cycle of milk production.

Cows are milked ...

Then milk is ... and delivered by ... to ...

There it is ..., ... and ...

It is important to ...

Text 1

Nutritional value of milk

Milk is considered to be highly important for the nutrition and well-being of mammalian infants.

It is interesting that the milks of all species contain the same nutrients, differing only in proportions. Having found milk good food, man domesticated various species of animals for dairy purposes.

Cow milk is sure to be the principal type used in the world. Other animals kept for milk production include buffalo (in India, China, Egypt and the Philippines), goats (in the Mediterranean countries), reindeer (in northern Europe), and sheep (in southern Europe). In general, the processing technology used for cow milk can be successfully applied to milk obtained from other species.

Cow milk has been used by man from the earliest times to provide both fresh and storable nutritious foods. The nutritional value of milk is indicated by the fact that daily consumption of a quart (0,95 litre) of cow's milk supplies an average man with approximately all the fat, calcium, phosphorus, and riboflavin, one-half the protein, one-third of the vitamin A, ascorbic acid and thiamine, one-fourth the calories; and with exception of iron, copper, manganese and magnesium, all the minerals needed daily. Considerable amounts of nicotinic acid and choline are also provided.

Nowadays, in some countries almost half the milk produced is consumed as fresh pasteurized whole, low-fat or skim milk. However, most milk is manufactured into more stable dairy products of worldwide commerce, such as butter, cheese, dried milk, ice-cream, yogurt and condensed milk.

Tasks

1. Scan the text.

2. Put the sentences in the correct order.

- a) Cow milk is sure to be the principal type used in the world.
- b) Milk and milk products provide people with many vitamins and essential elements.
- c) Milk obtained from different animals contains the same elements.
- d) Quite a number of dairy products are sold worldwide.
- e) In history different countries bred different animals for obtaining milk.

3. Complete the sentences.

People in	Egypt, India and China the Philippines the Mediterranean countries in southern Europe in Russia in Northern Europe	kept	goats cows buffalos sheep reindeer	for dairy purposes.
-----------	--	------	--	------------------------

4. In the text, find the abstract about main elements with which milk supplies people. Translate it.

5. In pairs, act out a conversation. The topic: Milk consumption: pro and contra

Use the following ideas:

1) "There was a time when milk was considered very desirable, but research has forced us to rethink this recommendation... Dairy products contribute to a surprising number of health problems. They can impair a child's ability to absorb iron and in very small children can even cause subtle blood loss from the digestive tract. Combined with the fact that milk has virtually no iron of its own, the result is an increased risk of iron deficiency."

Ben Spock

2)"Milk is one-stop shopping for nutrition. It contains nearly all the basic nutrients that a growing child needs: fats, carbohydrates, proteins, vitamins and minerals (except iron). While it is true that most of the nutrients in milk can be gotten easily from other sources, such as vegetables, legumes, and seafood, milk puts them all together in a convenient package. Realistically, children eat or drink dairy products in greater amounts and more consistently than other foods. While whole milk is not the only way to get calcium in a child's diet, it's the most practical way."

Bill Sears, MD Associate Clinical Professor of Pediatrics at the University of California

3)"Studies have suggested that some of the nutritional benefits of milk may be lost when a lactase-deficient [lactose intolerant] individual consumes milk. Not only does this person fail to receive the calories normally supplied by the undigested carbohydrates; resultant diarrhea may lead to loss of protein as well.

Frank Oski

4) "The men with the greater consumption of milk experienced a reduction in the risk of ischaemic stroke and a possible reduction in ischaemic heart disease risk. Explanations of these results other than a beneficial effect of milk would seem to be unlikely. The present perception of milk as harmful, in increasing cardiovascular risk, should be challenged and every effort should be made to restore it to its rightful place in a healthy diet."

Pete Elwood, Professor of Epidemiology at Cardiff University

Grammar revision

The Infinitive and Infinitive constructions

Exercise 1. Change the sentences after the model.

Model: He is so old that he cannot skate. He is too old to skate.

1. The problem is so difficult that it is impossible to solve it. 2. The box is so heavy that nobody can carry it. 3. The baby is so little that it cannot walk. 4. He is so weak that he cannot lift this weight. 5. She is so busy that she cannot talk with you. 6. She was so inattentive that she did not notice the mistake. 7. The rule was so difficult that they did not understand it. 8. He was so stupid that he did not see the joke. 9. The milk is so fat that it cannot be recommended for your slimming diet. 10. The accident in milk complex was so unexpected that I don't want to talk about it. 11. The milk tanks were so dirty that they could not be used. 12. The window was so dirty that they could not see through it. 13. She was so inexperienced that she could not operate our new milk processing equipment. 14. I have very little wool: it won't make a sweater.

Exercise 2. Translate the sentences paying attention to the Active Infinitive and Passive Infinitive.

1. To play chess was his greatest pleasure. 2. The child did not like to be washed. 3. Isn't it natural that we like to be praised and don't like to be scolded? 4. Which is more pleasant: to give or to be given presents? 5. Nature has many secrets to be discovered yet. 6. To improve your pronunciation you should record yourself and analyse your speech. 7. This is the book to be read during the summer holidays. 8. To be instructed by such a good specialist was a great advantage. 9. He is very forgetful, but he doesn't like to be reminded of his duties. 10. In general, the processing technology used for cow milk can be successfully applied to milk obtained from other species. 11. Cow milk has been used by man from the earliest times to provide both fresh and storable nutritious foods. 12. Fresh and storable nutritious foods are to be delivered every day by our complex. 13. Any milk processing plant must have license for it. 14. This chilled milk is to be pasteurized in the milk pasteurizer and cream must be separated from the cream separator which gets skimmed milk. 15. The product is heated to decrease the fat particles that present in it.

Exercise 3. Translate the sentences paying attention to the Perfect Infinitive.

1. The calf was happy to have been brought to its mother. 2. Jane remembered to have been told a lot about the latest events. 3. The children were delighted to have been brought to the circus. 4. I am sorry to have spoiled your milk. 5. Maggie was very sorry to have forgotten to feed the rabbits. 6. I am awfully glad to have met you. 7. Sorry to have placed you in this disagreeable situation. 8. I am very happy to have had the pleasure of making your acquaintance. 9. I am sorry to have kept you waiting. 10. Clyde was awfully glad to have renewed his acquaintance with Sondra. 11. Sorry not to have noticed you. 12. I am sorry to have added some more trouble by what I have told you. 13. When Clyde looked at the girl closely, he remembered to have seen her in Sondra's company. 14. The process was completed and the workers were satisfied to have packaged all milk products using new German equipment.

Exercise 4. Complete the sentences using Complex object.

Model: "Bring me a book," said my brother to me. – My brother wanted me to bring him a book.

1. The teacher said to the students: "Learn the rule." — The teacher wanted ... 2. "Be careful, or else you will spill the milk," said my mother to me. — My mother did not want ... 3. "My daughter will go to a ballet school," said the woman. — The woman wanted ... 4. The man said: "My son will study food technology." — The man wanted ... 5. "Our company will buy a new truck to deliver milk products to the supermarket" said the managing director — The managing director ... 6. "Wait for me after school," said Ann to me. — Ann wanted ... 7. "Fix the shelf in the bathroom," my father said to me. — My father wanted ...

Exercise 5. Memorize the following phrases used in Complex Subject.

He was said to work a lot. — Говорили, что он много работает.

... was said to ... — Говорили, что...

... was seen to ... — Видели, что...

... was heard to ... — Слышали, что...

... was supposed to ... — Предполагали, что...

... was believed to ... — Полагали, что...

... was expected to ... — Ожидали, что...

... was reported to ... — Сообщали, что...

... was considered to ... — Считали, что...
... was thought to ... — Думали, что...
... was found to ... — Обнаружили, что...
... was announced to ... — Объявили, что...
... was known to ... — Было известно, что...

Exercise 6. Translate the sentences with Complex Subject.

1. He is said to know all about milk clarification. 2. He was said to have known the whole truth about this project. 3. Yuri Gagarin is known to be the first man in the world to travel into space on the 12th of April, 1961. 4. He is supposed to be a very good film actor. 5. This equipment is believed to raise the efficiency of our milk processing complex. 6. The exhibition of 19th-century French painting is expected to open by the end of next week. 7. The President of Russia was reported to speak to the nation on television tonight. 8. True friends are known to be like diamonds, precious but rare, false friends are said to be like autumn leaves found everywhere.

Useful words and word combinations

butter – сливочное масло
buttermilk – пахта (cultured buttermilk – простокваша)
carbohydrates – углеводы
cheese – сыр
chilling unit – охлаждающая установка (блок)
churn – взбивать
clarification – очищение
condensed milk – сгущенное молоко
cultured – кисломолочный
curd – сгусток, творог, сычужная закваска
dairy products – молочные продукты
desirable – желательный
dried milk – сухое молоко
fat particles – частицы жира
flavoring – придание вкуса
homogenization – гомогенизация
ice-cream – мороженое
kefir – кефир
koumiss – кумыс

low-fat milk – молоко с низким содержанием жира
mammalian infants – младенцы млекопитающих
means of exchange – средство обмена
milk processing plant – молочное предприятие
milk storage – хранение молока
milk tank – резервуар для молока
nicotinic acid – никотиновая кислота
nutrient – питательный
packaging – упаковка
pasteurization – пастеризация
pasteurized whole milk – пастеризованное молоко
processing – переработка
protein – белок
refrigerated milk tank – бак с охлажденным молоком
skim milk – обезжиренное молоко
sour cream – сметана
to process – перерабатывать
yogurt – йогурт
whey – сыворотка

Tasks

1. Find in the list of words:

- Types of milk and milk products
- Elements
- Processes

2. Translate the sentences.

1) All milk tanks are collected by big trucks that transport the product to the milk processing plants. 2) The main curb in pasteurization process is more power consumption, lower energy effectiveness and high-temperature losses. 3) Product separations from bacteria is well-known as clarification. 4) Both kefir and koumiss contain from 1% to 2,5% alcohol produced by yeasts. 5) Milk storage should be done in perfect conditions. 6) Milk is vital for mammalian infants. 7) These are high-fat, high-protein milks are excellent ingredients for cheese and other manufactured dairy products. 8) Condensed milk differs from evaporated milk in sugar content.

3. Develop the idea:

- a) Milk is a valuable food product because ...
- b) I (dis)like such milk products as ... because ...
- c) Cows should be milked ...
- d) Some milk products contain alcohol such as ...
- e) The main processes at a milk processing plant are ...

Text 2 Dairy products

Soon after man began to use milk from animals he discovered that if it was not soon consumed it became sour and coagulated due to bacterial contamination of milk. People are believed to have started making fermented milks since early times, when they began to add small portions of common *Streptococcus* and *Lactobacillus* bacteria (often called “cultures”) in warm milk of cows, sheep, goats, camels, or horses. These bacteria were found to be harmless lactic acid producers, thus especially effective in lowering the pH and inhibiting growth of pathogenic organisms. So, it was possible to prevent milk from spoilage and to preserve it fresh for several days or weeks without refrigeration. The fermented milks were edible and delicious. Being excellent sources of calcium and protein, cultured dairy products provide numerous potential health benefits to the human diet.

Cultured buttermilk was formerly the water end-product of butter-making, and thus it was used as a beverage. Both fat or skim low-fat milk are used as the starting ingredients for buttermilk, but when the latter is used, nonfat solids should be added to increase total solids to 12-13,5%. Then milk is pasteurized at 82 °C for 30 min, or at 90°C for 2-3 min. milk is then cooled to 22°C and inoculated with 1% starter cultures of desirable bacteria, incubation at the next stage lasting for 12-14 hours. Producers add some cultures to obtain desired flavor. Then the product is cooled to 4 °C.

Yogurt originated in Eastern Europe and it is believed to have been food in the Balkan countries for at least 2000 years. It is made according to the similar technology as buttermilk and sour cream, but it is known to require different bacteria and temperature.

Butter has been used as food, medicinal and cosmetic, for at least 5000 years. Butter is known to be one of the most highly concentrated forms of fluid milk. One should process twenty liters of whole milk to produce one

kilogram of butter. Commercial butter is 80-82% milk, 16-17% water, 1-2% milk solids. It may contain salt, added directly to the butter in concentrations 1-2%. The addition of salt to butter is sure to contribute to its flavor and also acts as a preservative.

Cheese occurred within a few centuries after domestication of the cow and other mammals. Cheese is known to have played an important role in the economy of many nations. It is found to have become one of the means of exchange because it provided milk in a more portable and less perishable form. There exist more than 2000 names of cheeses, although sometimes similar products have different names. Cheese-making process depends on the coagulability (свертываемость) of casein from milk. The principle example of cheese making is the natural souring of raw milk followed by stirring to break the coagulum, then heating to shrink the curd, releasing whey. Curd is dipped from whey and drained to provide fresh curd, the basic component of cheese. Removal of whey is the fundamental stage in manufacturing all types of cheeses. The next step includes the ripening of cheese curd. It is the most risky because the curd's microbial and enzymatic contents may differ greatly.

Tasks

1. Read and translate the text.

2. In the text, find the sentences with the infinitive construction Complex subject.

3. Answer the questions.

- 1) Why does milk become sour and coagulated?
- 2) When did people start making fermented milks?
- 3) What can you say about the fermented milks' benefits?
- 4) What is cultured buttermilk?
- 5) How do producers obtain desired flavor of cultured milks?
- 6) What is the difference between yogurt and cultured milks making?
- 7) What is butter?
- 8) Why is salt added to butter?
- 9) What role did cheese play in the life of nations?
- 10) Why is the ripening of cheese curd the most risky stage in cheese-making?

4. Make up sentences.

People ... <i>Streptococcus</i> and <i>Lactobacillus bacteria</i> ... The fermented milks ... Fat or skim low-fat milk ... Producers ... Yogurt ... Butter ... Cheese-making process ...	depends on originated from add wanted decrease turned to be are used is known to be	... to preserve milk for longer periods. ... the coagulability of casein from milk. ... as the starting ingredients for buttermilk. ... the pH and inhibiting growth of pathogenic organisms. ...edible and delicious. ... (in) Eastern Europe. ... some salt to contribute to its flavor and also acts as a preservative. food, medicinal and cosmetic.
--	--	---

5. Make up a diagram “Butter composition” and comment it.

6. What do these figures mean in the text?

5000; 4 °C; 12-13,5%; 90°C; 2000; 1%.

7. Make up a plan and give short retelling of the text.

Speaking

Make a presentation. Topics for choosing:

- 1 Milk processing
- 2 Milk products
- 3 The role of milk in human nutrition

Unit VIII

Veterinary service

Dialogue

- What's your occupation?
- I work at a vet clinic.
- Are you a veterinarian?
- Yes, I am. I like it because although it is a hard work, every day is different.
- Really?
- Yes. It all depends on what is wrong with the animals that come in.
- Great! Ever since I can remember, you have wanted to become a veterinarian. Sometimes I suspect that you love animals more than you love people.
- Oh, don't say so.
- What is your work connected with?
- Well, veterinarians diagnose and control animal diseases, treat sick and injured animals, prevent the transmission of animal diseases to people, and advise owners on proper care of pets and livestock. They ensure a safe food supply by maintaining the health of food animals.
- I know veterinarians are also involved in wildlife preservation and conservation and public health of the human population.
- It is true. There is much to do.
- What do you do on your typical working day?
- At my clinic I work long days on Mondays, Wednesdays and Fridays, and short days on Tuesdays, Thursdays and Saturdays. At 9 am, pet owners start to arrive with their sick pets. Appointments take up the whole morning. At midday, I stop for two hours. I use this time to have lunch and all my paper work.
- Who helps you? Unlike in human medicine, veterinarians must rely primarily on clinical signs, as animals are unable to vocalize symptoms as a human would. In some cases, owners may be able to provide a medical history and the veterinarian can combine this information along with observations, and the results of diagnostic tests. It's impossible to do all these things yourself.

- I have some assistants and a receptionist who opens the door, makes everyone a cup of tea or coffee, clean the rooms and speak on the telephone when people make appointments.
- When do you come home?
- At 7 pm we close our doors, tidy the clinic, turn off the lights and go home. This is the type of day I aim for. But of course, unexpected things sometimes happen.

Tasks

1. In pairs, act out the dialogue.

2. Using the dialogue match translation of the phrases.

1) нацеливаться на что-то	A to vocalize symptoms
2) регистратор	B sick and injured animals
3) больные и травмированные животные	C a safe food supply
4) записаться на прием	D to aim for
5) безопасность продовольствия	E wildlife
6) животный мир	F to make appointments
7) озвучить симптомы	G a receptionist
8) лечить	H to treat

3. Agree or disagree with the statements. Use:

You're right (to a certain extent).

You're wrong.

- 1) We close our clinic at 7 am.
- 2) We are opened 6 days a week.
- 3) Veterinarians only diagnose and control animal diseases, treat sick and injured animals, prevent the transmission of animal diseases to people, and advise owners on proper care of pets and livestock.
- 4) I clean my clinic every day.
- 5) Veterinarians rely primarily on clinical signs and symptoms of illness.
- 6) Every day at the vet clinic is the same.
- 7) Veterinarians can ensure a safe food supply.

4. Examine the picture and answer the questions.

- 1) Is it an advertisement?
- 2) Does this picture provide any information? What is it about?
- 3) Where is Pet Health Club located, in the UK or USA?
- 4) How much are services and treatment per month for a cat? For two cats?

Why it makes perfect sense to join our
Pet Health Club

You'll be providing essential routine care for your pet, which is all part of being a responsible pet owner. Save money on the cost of treatments and services that keep your pet healthy and happy. This also allows you to budget and spread the cost of routine care by convenient direct debit.

LOOK HOW MUCH IS COVERED, HOW LITTLE IT COSTS AND HOW MUCH YOU SAVE!

- ✓ Vaccination Course or Booster
- ✓ Kennel Cough Vaccination
- ✓ 2nd Healthcheck at 6 months
- ✓ All year Worm Treatment
- ✓ All year Flea Treatment (Annual Flystrike for rabbits)
- ✓ Cost Price Food[†] (non-prescription)
- ✓ Annual Urine Test^{**}
- ✓ Nail Clipping*
- ✓ Microchip or £10 voucher (one per pet)
- ✓ 50% off Retail Cost of First Bag of Food[†] (one per pet)
- ✓ 25% off Royal Canin & Hills Prescription Food
- ✓ 10% off Dentistry & Pet Passports
- ✓ 10% off Pet Shop Sales & Geriatric Screenings

PLUS YOU'LL GET

- 20% OFF** Selected Lifetime Care Medications and Neutering
- 100% OFF** Direct Claims Administration Fee

The Pet Health Club is NOT an Insurance Policy

	MONTHLY PAYMENTS	AVERAGE SAVINGS YEAR 1
Rabbit	£7.80	£79
Cat	£12.50	£162
Small dog (under 10kg)	£12.50	£162
Medium dog (10-25kg)	£13.50	£167
Large dog (25-40kg)	£15.50	£231
Giant dog (over 40kg)	£20.00	£373

Please see savings guide for more details

Any additional pets pay £1 less per month

Terms & Conditions: *Nail Clipping only available at point of healthcheck (twice per annum). **Urine test covers feline but not cystitis or diabetes. †Based on retail cost of food. Up to 4kg. ‡To be eligible for the cost price food, members must pay for the food prior to the practice ordering it. The food will then be available to collect, provided it is in stock, on the next working day. Cost price food applies to Royal Canin, Hills & MPM brands only. ††If the policy is cancelled before the anniversary of the plan, full payment will be required. Savings based on average of 170 nationwide Practices. Any discounts are an estimated amount.

Pet Health Club

www.thepethealthclub.co.uk

Text 1

The profession of a veterinarian

Veterinary comes from the Latin word “veterinae”, meaning cattle. In some languages the term animal doctor is used. Veterinary medicine relates to medicinal treatment of disease, while veterinary surgery relates to surgical treatment of disease.

This is still a major duty for veterinarians – to examine, diagnose and treat the animals that live with and around humans. Veterinary medicine is to animals what doctors are to people. It is important because of the value we place on animals as: an important part of nature which has to be

preserved; an important food source (food animals); emotional value as pets (dogs, cats, horses, etc.) So, veterinarians also work in other fields, including food safety, medical research, public health and outbreak investigations.

When the first modern school of veterinary medicine was founded in the 1800s in Lyon, France, the primary reason for teaching a cadre of veterinarians was to control diseases in livestock. As veterinary medicine became established around the world, the primary drive was to care for the animals that humans were in contact with and used in daily life.

In the United States, veterinarians must have a degree in veterinary medicine (generally a professional degree) and a valid license to practice in the state they are working in. The requirements are typically similar around the world, although licensing requirements can vary depending upon the type of work the veterinarian is performing.

Many veterinarians feel a sense of accomplishment knowing they are helping animals and people live happier and healthier lives. There is also a thrill in treating unusual or difficult cases – it is a challenge that can be met and overcome.

The initial image of a veterinarian for most people is of someone who is fortunate to spend every working day with cute and cuddly animals and their kind and responsible owners. While this can be and often is part of the reality of a veterinary practice, it does not describe the other aspects and possible scenarios in a day in the life of a vet. Throughout his or her career, a veterinarian may encounter abusive animal owners; aggressive or dangerous animals; and difficult recommendations and decisions.

Nevertheless, veterinarians tend to have very stable jobs.

Tasks

1. Read and translate the text.

2. Answer the questions.

- 1) What does a word “veterinae” mean? Is it a Greek word?
- 2) What is veterinary medicine?
- 3) What other fields do veterinarians work in?
- 4) Where was the first vet school founded?
- 5) What are disadvantages of this profession?

3. In pairs, act out a conversation between an experienced vet specialist and a student of vet department. Discuss the following:

- The history of veterinary service;
- Advantages/disadvantages of this profession;
- The importance of the profession.

4. Choose key sentences for short retelling of the text.

Grammar revision Gerund

Exercise 1. Derive different forms of the Gerund from the infinitives.

To treat, to use, to feed, to cultivate, to sow, to examine, to break down, to write, to recommend, to do, to visit, to observe.

Exercise 2. Identify the form of the Gerund.

Being examined, making, having weaned, having been done, being repaired, having left, having been translated, trying, being developed, breeding, watering, having bred, having been watered, being pruned, having been fed, feeding.

Exercise 3. Translate the word combinations with the Gerund.

To feed

Feeding calves; by feeding properly; without feeding properly; with the help of feeding properly; before feeding; against feeding new fodder; instead of feeding; for feeding; about feeding calves.

Exercise 4. Match the word combinations with their translation.

about my being ill;	о том, что я болел
about my having been ill;	о том, что я болен
about the car's having been repaired;	о ремонте машины
about repairing the car;	о том, что машину ремонтируют
about the car's being repaired	о том, что машину отремонтировали
the molecules' breaking down;	расщепление молекул
after the molecules' having broken down;	после расщепления молекул
by heating the earth's surface;	без нагрева земля...
without being heated,	за счёт нагревания земной
the earth...	поверхности

В английском языке есть ряд глаголов, после которых герундий, как и инфинитив, употребляется как прямое дополнение. Запомните их:

to avoid – избегать, стараться не (делать)

to begin – начинать

to continue – продолжать

to finish – заканчивать (кончать)

to give up – бросать (отказываться)

to go on – продолжать

to enjoy – получать удовольствие от

to excuse – извинять

to hate – не терпеть

to keep (on) – продолжать

to like – любить, нравиться

to prefer – предпочитать

to prevent – мешать, препятствовать

to regret – сожалеть

to resist – сопротивляться

to start – начинать

to stop – прекращать

to try – пытаться

to withstand – противостоять, выдерживать

Запомните следующие сочетания, после которых употребляется герундий:

I cannot help ... – Я не могу не ...

It is worth ... – Стоит (что-то сделать) ...

It is no good (use) ... – Бесплезно, нет смысла ...

Exercise 5. Translate the sentences with the Gerund.

1) There isn't a single point worth mentioning. 2) It is no use searching for another approach. 3) It's started raining hard. 4) Avoid speaking to him about it. 5) The motor went on running. 6) I couldn't help laughing at this story. 7) He gave up smoking two years ago. 8) Hardness is the ability to withstand being dented or stretched. 9) Excuse my being late. 10) At weekends she enjoyed walking through the forest. 11) He liked playing cards and hated stopping for lunch. 12) At first the scientist avoided talking about the discovery.

В качестве предложного дополнения герундий может употребляться после глаголов:

to be aware of – сознавать

to be busy in – заниматься

to be astonished at – изумляться

to be afraid of – бояться (чего-либо)

to be fond of – увлекаться

to be engaged in – заниматься

to be interested in – интересоваться

to be proud of – гордиться

to be responsible for – быть ответственным (за что-либо)

to be surprised at – удивляться

to think of – планировать что-либо ...

Exercise 6. Translate the sentences with the Gerund.

1) I'm thinking of trying another method in my investigation. 2) She was afraid of being wrong. 3) We are thinking of buying a new apartment. 4) I was engaged in gardening. 5) My father is interested in repairing cars. 6) He is responsible for packaging. 7) These molecules are responsible for getting food. 8) She is proud of being the winner.

Exercise 7. Determine the functions of the Gerund. Translate the sentences.

- a) Obtaining good yields depends on different factors.
- b) Without using a dictionary we cannot translate this text.
- c) He thanked them for having come.
- d) She likes reading books about nature.
- e) Cultivating grain crops is almost impossible in tropical rain forests.
- f) The idea of visiting the Statue of Liberty belongs to my father.
- g) He told everything without mentioning my name.
- h) Their having come changed the whole situation.
- i) New molecules could grow by taking food.
- j) After having been repaired the car looked like a new one.

Exercise 8. Use Active or Passive form of the Gerund.

1. Why do you avoid (to speak) to me? 2. She tried to avoid (to speak) to.
3. The doctor insisted on (to send) the sick man to hospital. 4. The child insisted on (to send) home at once. 5. Do you mind the cow (to examine)

by a veterinarian? 6. He showed no sign of (to recognize) me. 7. She showed no sign of (to surprise). 8. He had a strange habit of (to interfere) in other people's business. 9. I was angry at (to interrupt) every other moment. 10. He is good at treating pets. 11. He was very glad of (to help) in his difficulty. 12. In (to make) this experiment, they came across some very interesting phenomena. 13. The results of the experiment must be checked and rechecked before (to publish).

Exercise 9. Determine the part of speech of –ing form words.

1. We sat by the riverside listening to the running of the water. 2. The cleaning of the room was done by the girls. 3. Working in the garden is very good for the health of people. 4. Going home from the theatre, they were discussing the play they had seen. 5. You should think before speaking. 6. After finding the new word in the dictionary, I wrote it down and went on reading. 7. He spent much time on the farm examining animals. 8. What do you mean by saying that? 9. The students found working in the vet clinic rather difficult at first. 10. After watering the cow the farmer went home. 11. Preventing disease is more important than treating it. 12. Carrying out veterinary-sanitary work is a very important task of the veterinary service. 13. Consultation regarding problems of animal health is conducted regularly. 14. At the beginning of the century farmers used these methods.

Useful words and word combinations

animal husbandry – животноводство

anthrax – Сибирская язва

blackleg – черная ножка, эмфизематозный карбункул (возбудитель заболевания)

brucellosis – бруцеллез

clinical signs – клинические проявления

eradication – ликвидация (болезни)

full pharmacy – полная аптека

overcome – преодолеть

preventive measures – профилактика

safeguard the public health – стоять на страже здоровья населения

sick – больной

surgeon – хирург

surgical treatment – хирургическое вмешательство

tetanus – столбняк

treat – лечить

vaccinate against – вакцинировать от ...

veterinarian [vetəri'neəriən] – ветеринар, ветеринарный

veterinary aid man – ветеринарный фельдшер

veterinary aid station – пункт ветеринарной помощи

veterinary assistant – ветеринарный техник

veterinary attendance – ветеринарное обслуживание

veterinary authority – ветеринарное учреждение

veterinary certificate – ветеринарное свидетельство

veterinary charges – расходы на ветеринарное обслуживание

veterinary service ['vet(ə)rɪn(ə)rɪ] – ветеринарная служба

Tasks

1. Find in the list of words:

duties (verbs); health problems; professions

2. Make up word combinations.

veterinary	service
to treat	veterinary-sanitation work
to prevent	disease
to examine	surgeon
to diagnose illness	sick animals
to overcome	injured animals
inspection of	according clinical signs
to vaccinate	assistant
to carry out	attendance
	against tetanus
	food supply

3. Develop the idea.

- a) Veterinary service is responsible for ...
- b) Preventive measures ...
- c) A veterinarian is a person who ...
- d) At a vet clinic ...

Text 2

Veterinary work

A veterinary clinic is any authorized place where veterinary work is conducted. A veterinary hospital is a larger clinic that usually provides more specialized services.

As opposed to a human doctor's office, which only has exam rooms, a veterinarian's office is more like a hospital with a full pharmacy. Waiting rooms are available often with separate areas for dogs, cats, and exotics.

Small animal veterinarians typically work in veterinary clinics or veterinary hospitals, or both. Large animal veterinarians often spend more time traveling to see their patients at the primary facilities which house them (zoos, farms, etc).

Food animal vets spend much of their time on farms and ranches and test for, treat, and vaccinate against disease. Their consultation with farmers includes topics such as housing, feeding, and general health.

Most veterinarians maintain electronic records, and have computer programs to track billing (отслеживание счетов). In addition, there are several good resources for veterinarians on the internet.

Vet specialists work in various specialty areas, some of them are:

Anesthesia – Management of pain associated with vet procedures

Animal Welfare – Education, certification, and scientific investigation

Behaviour – Study of behaviour in both healthy and sick animals

Dentistry – Animals' teeth

Dermatology – Diseases and conditions of animals' skin

Emergency and Critical Care – 'ER' and intensive care

Internal Medicine – Specialties including cardiology (heart and circulatory system), neurology (brain, spinal cord, and nervous system), and oncology

Laboratory Animal Medicine – Research or practice specializing in laboratory animal species (rabbits, rats, mice, etc.)

Microbiology – Study of viruses and bacteria

Nutrition – Animal diets and required nutrients

Ophthalmology – Diseases and conditions of the eye

Pathology – Examination of organs, tissues, and body fluids to diagnose disease

Pharmacology – Study of effects of drugs on animals

Preventative Medicine – Study of how diseases are spread and how they can be prevented.

Tasks

1. Read and translate the text.

2. In the text, find English equivalents for the following words and phrases:

специализированное учреждение; предоставлять (услуги); в отличие от ...; кабинет для осмотра; первичные объекты; размещение; кормление; общее состояние здоровья; вести электронные записи; поведение; спинной мозг; неотложная помощь и интенсивная терапия.

3. In pairs, act out a conversation. Discuss:

- the difference between vet clinic and vet hospital;
- the work of small animal veterinarians;
- the work of large animal veterinarians;
- the work of food animal vets;
- specialty areas of vet specialists

Use the phrases: I wonder ...; As for ...; I think ...

Text 3

Some fundamentals of veterinary service

An important part in the development of animal husbandry is played by the veterinary service. Animal diseases can cause great damage to the herds of cattle. They reduce the profits of livestock farms, and the larger the farm the greater the damage. To prevent and control diseases of livestock and poultry, to control epizootics [epizəʊ'ɒtɪk] and to carry out veterinary-sanitation work are the main tasks of the veterinary service. Veterinary surgeons and veterinary surgeon's assistants do this work in our country.

The veterinarian must know rules and regulations designed to conserve animal life and to safeguard the public health. The main duties of a veterinarian are the following:

- Consultation regarding problems of animal health and disease;

- Hospitalization of sick and injured animals including medical and surgical treatment;
- Eradication of tuberculosis and brucellosis in livestock;
- Vaccination of animals against anthrax, blackleg, brucellosis, tetanus and several infectious diseases of poultry;
- Inspection of food supplies of animal origin to prevent the transmission of animal diseases to man and to maintain quality and sanitary condition of food.

Tasks

- 1. Scan the text.**
- 2. Fill in the table.**

Main tasks of veterinary service	Main duties of a veterinarian

- 3. Make a summary of the text.**

Speaking

Task

Make a presentation on the theme: “My future vet clinic”.

Plan

- 1) Location
- 2) Building
- 3) Rooms and interior
- 4) Equipment
- 5) Personal staff and their duties

Тренировочные тексты для подготовки к экзамену

1-е задание

Переведите текст с помощью словаря. Время подготовки – 1 час на 2000 печ. знаков.

Text 1 **Offal**

Offal is also called variety meats, any of various non-muscular parts of the carcasses of beef and veal, mutton and lamb, and pork, which are either consumed directly as food or used in the production of other foods. Variety meats have been a part of the human diet since the invention of cooking, which made the otherwise indigestible animal parts edible. In nutritional terms, several variety meats are richer in certain vitamins, minerals, and forms of protein than muscle tissue; calf's liver, for example, is a major dietary source of iron, and sweetbread (thymus) is considerably higher in the water-soluble protein albumin than beef.

Beef offal includes the stomach, tripe, or large stomach, brains, heart, liver, tongue, and kidneys. For young beef, or veal, a number of additional parts, such as spinal marrow, trotters (feet), mesentery, and the sweetbread, are counted among the variety meats. Mutton and lamb offal includes the kidneys, tongue, brains, feet, stomach, heart, liver, and lungs. In pork, the designation includes the liver, kidneys, brains, trotters and head. Pigs' intestines are used as containers in the manufacture of sausages, and pigs' blood is an ingredient in black pudding.

The variety meats are found in different Western cuisines. Some offal, especially the brains, liver, tripe, lungs, and trotters, has long been associated in the United States with rural cookery, pork intestines being considered perhaps a typical food of the rural poor. These parts are usually prepared by boiling or frying and served highly seasoned. Several of the same foods, such as calf's liver for frying and jellied tripe and pickled beef tongue for use as cold cuts, are sold in the average urban food store; other variety meats are generally available by special order. In the cuisine of Europe, variety meats form the basis of numerous classic dishes, such as tripe a la mode de Caen and grilled sweetbread.

Text 2

The importance and characteristics of concentrated and dried milk products

Milk is known to be widely used not only in the fresh fluid form, but in some concentrated and preserved forms. It is important that concentrated and dried milk products occupy less space, weigh less, and remain edible longer than fresh milk. Thus, they save storage and packaging space, cost less to transport, and serve as a reserve in times of short supply. Moreover, these products have certain properties that make them especially useful as in the use of nonfat dry milk in dry cake mixes. Concentrated sources of milk solids are required in cookery for preparing numerous foods, which would be diluted by a *less concentrated form of milk*.

The production of these products seems to be a simple operation as it mainly involves the removal of water. However, the complex nature of raw materials used needs special study by dairy scientists.

Text 3

Concentrated milks

This term refers to those products from which sufficient water is removed to concentrate the milk fat to at least 7.5% and total milk solids to at least 25.5%.

Whole, low-fat and skim milks, as well as whey and other dairy liquids, can be efficiently concentrated using heat under vacuum. Since reducing atmospheric pressure lowers the temperature at which liquids boil, the water in milk is evaporated without affecting a cooked flavour. There exist more modern expensive technologies such as ultrafiltration.

Concentrated milk is pasteurized but not sterilized by heat to prevent spoilage, and then preserved by refrigeration. The obtained product is sure to require less storage space, so it costs less to distribute.

Most concentrated milk is known to be supplied to industry and processed into plain condensed milk, which is used as an ingredient in manufacturing other products.

Text 4

Condensed milk

This term is usually applied to the product obtained by partially removing water from a mixture of milk and suitable nutritive sweetener. The final product contains about 8.5% milk fat and at least 28% total milk solids. Being added in sufficient amounts (at least 60% in the water phase), sugar provides high osmotic pressure and prevents bacterial action and product spoilage, thus facilitating the storage of the product at room temperature. It is interesting that sweetened condensed milk was first produced on a commercial scale in about 1858 in New York, and today it is often sold in refrigerated tank-truck loads to manufacturers of candy, bakery goods, ice cream, cheese, and other foods.

Text 5

Evaporated milk

The name is reserved for the product made from homogenized milk by concentrating with heat and vacuum to obtain at least 25.5% total milk solids and 7.5% milk fat, and by further sterilizing of the product in the sealed can at 118°C. It is essential to fortify the product with vitamins A and D. A stabilizer, such as disodium phosphate, is also added to keep the product from separating during processing and storage. To obtain high-quality evaporated milk, new ultrahigh-temperature processing as well as aseptic filling of metal cans is widely practiced. These measures prevent evaporated milk from caramelized flavour and allow storing it for several months at room temperature.

Text 6

The origin of frozen milk desserts

Refreshing, appetizing, convenient, adaptable, and nutritious - who can deny that these qualities of ice cream, ice milk, and sherbets place them at the top of the preferred list of frozen desserts from milk that can readily fulfill one's desires and satisfy the budget? Primarily frozen milk products were available only to the rich due to expensive refrigeration, but today these products are considered to be foods in the true sense. Being easily digested, milk desserts are preferred both by children and adults because of their convenience and variety.

Ice cream is said to have appeared from flavoured ices that were popular with the rich Roman in the 4th century BC In the 1st century AD, when the emperor Nero ruled, a substance resembling ice cream was prepared from snow brought from the mountains and mixed with honey, juices, and fruit. It was recorded that in the 13th century Marco Polo returned from China with a recipe for making water and milk ices.

The first 84-page manuscript "The Art of Preparing Ice Cream" was written by the unknown author about 1700. A more detailed description of "food for the gods" and explanations for phenomena such as freezing water were given in a book "The Art of Making Frozen Desserts" that appeared in Paris in 1768.

In America, Governor William Bladen of Maryland served a dessert containing ice cream and strawberries in about 1700, and George Washington spent approximately 200 dollars for ice cream in New York during the summer of 1790. The discovery that salt would lower the freezing point of cracked ice led to the first practical method of making ice cream. But consumption by the masses had to wait for development of ice freezing equipment until the 19th century.

Text 7

Keep your eye on the bull

A number of people are killed and many others injured on our farms every year in accidents caused by animals. All animals are unpredictable, sometimes dangerous, bulls in particular. Farmers and farm workers should be attentive being in daily contact with animals.

Experience shows that a bull that has never shown any signs of aggression may suddenly turn and attack without warning.

A bull should be housed in a properly-built bull pen. In addition to adequate housing, there are some basic rules which should be observed by all stockmen. Things that the bull can toss about should never be left in the pen. Doors should be always closed. The pen area should always be kept clean, so that neither bull nor man is able to slip.

Children and dogs should be kept away from the vicinity of the pen and no one should be allowed to tease the bull The stockman should never turn his back on the bull until well beyond its reach.

A bull should be handled frequently it will become nervous and excitable if it is left alone for days. A bull pole (кольцо) should always be

used when the animal is led. The bull's head should be kept well up and the stockman should walk to one side, slightly, behind its head. Bull poles should be properly constructed and maintained. A stockman should never try to separate a bull from a herd without assistance.

Text 8

Calving guidelines

Good management practices are very effective at minimizing the stress at calving and calf mortality. Managing a dairy herd with an aim to minimize difficult calving is essential to a successful operation and requires the control of many factors.

Proper feeding: Proper feeding of heifers is important because they should not be inseminated until they have reached proper body weight. Cows should not be overfed during the last part of lactation or the dry period because overconditioning (obesity) increases the risk of difficult calving

Use a maternity pen: A maternity pen should be reserved for about every eight cows in herd. Thus, a 40-to 50-cow herd should have about six to seven individual maternity pens in which cows can move freely during calving. The pen should be dry, well ventilated thoroughly cleaned after each calving.

Be patient but ready to call for veterinary assistance when trouble occurs: Look for the early signs of calving and observe the progression of the calving. Give the cow adequate time to prepare herself for delivery. If there are no signs of progress and the cow begins to show signs of distress, check the position of the calf. If you are unable to determine the position of the calf or you are not sure of how to correct the problem, call for veterinary assistance immediately

If the decision to assist the calving is made use strict sanitary conditions: Wash and disinfect hands, arms, and all equipment used when examining the cow to minimize the risk of infection

Provide good care to the newborn calf: Clear the nostril of mucus and make sure the calf is breathing. Tickling the inside of the nostril with a finger is usually sufficient to initiate breathing. If the lungs are obstructed by a large amount of mucus, the fluids may be cleared by holding the calf by the hind legs or a short period of time. Use a disinfectant to prevent infection of the umbilical region. Feed colostrum within a few hours after birth to help the calf gain immunity against infectious diseases.

Text 9

Feeding dairy cows

In preparing rations for milking cows many factors should be considered. Rations are to provide carbohydrates in a readily available form, have proper amount of good quality protein, provide sufficient fat and mineral substances and contain the necessary vitamins. To obtain much milk is the aim of every cattleman. That is why the farmers are to supply their cows with nutritious feeds. Cows being on good pastures in summer, little or no additional feed are required. If pastures are of low quality, additional roughages and some grain should be fed to most cows.

During winter legume hay is known to be good roughage for dairy cows. Many dairy farmers provide corn silage or grass silage in addition to hay. High- yielding cows need some concentrated feeds to produce much milk. One can include high-protein feed in the grain mixture for such cows. Roughages of low quality being fed, the proportion of high-protein feed should be increased.

A dairy cow is known to require much water, for milk is about 87 per cent water. Three to four gallons of water are required for each gallon of milk produced by a cow.

Thus, cows being fed properly, all the necessary nutrients will be provided: carbohydrates and fats from grains, proteins from legume hay or protein supplements, minerals from good pasture, and vitamins from, a good mixture of feeds.

2-е задание

Просмотрите текст без словаря и поймите его содержание. Передайте содержание текста на русском или английском языке. Время подготовки – 15-20 минут.

Text 1 Washington D.C.

Washington D.C. is known to be the capital of the United States. It is sometimes called the heart of America because it is the centre of its government. The capital was named after the first president George Washington. It was founded in 1790. It is situated on the Potomac River in the District of Columbia. Washington is not the largest city in the country. Its population is only 900 000.

There are a lot of long wide avenues, gardens, beautiful parks in Washington. But there are no skyscrapers. The White House is much written about. It's President's residence. All American presidents except George Washington lived there. It was built in 1799.

Washington is a large scientific and cultural centre. Big institutes and universities are located here. One of the most famous buildings is the Pentagon. It is known as the residence of the US Military department. It is situated to the South of Potomac.

Why is the White House white? For us to know it there is a historic event dated to 1812. We know England to have been at war with America at that period of time. The British captured the city and some of the buildings, including President's House, were set on fire. In 1814, for the marks of the fire to be hidden, the brown stone walls of President's home were painted white – and it has been the “White House” ever since.

Text 2 Vegan Living

A large number of people do not eat meat. Vegans have taken this a step further by refusing to consume or use anything that comes from animals. This means that they not only do not eat meat, but they do not eat fish, poultry or dairy products either. So why have vegans adopted this way of life? Although a vegan diet may be strict, there are certain advantages to be gained.

Firstly, because a vegan diet is low in fat and cholesterol, the risk of heart disease is reduced.

Secondly, there is less pressure on farmers to keep animals under cruel conditions to produce milk, eggs and poultry.

On the other hand, humans are natural meat eaters and some essential ingredients in our diet can only come from animal products. For example, we cannot get enough vitamin B12 from plants, so vegans have to take this vitamin, made from yeast (дрожжи), as a supplement to their diet.

Moreover, the human digestive system cannot digest certain plant proteins, and this can lead to stomach problems.

Although there are some disadvantages to adopting such a strict diet, I feel that overall; it is a healthier way of life. Furthermore, it is cruel to kill animals for food and if everybody adopted a vegan diet, our whole outlook on life would change for the better.

Text 3

Copper

As you all know today's topic is the latest trend in alternative medical treatments involving the natural mineral copper.

There is no doubt that copper, along with other minerals, is essential to our general health. Copper is known to help the body to absorb iron and vitamin C, as well as helping keep bones strong and healthy. In fact, copper is found in almost all body tissue, the highest concentration being in the liver and the brain.

So, where do we get copper from? Well, as with the other vitamins and minerals our bodies require, we get what we need from the food we eat. A healthy varied diet including nuts, vegetables and olive or sunflower oil will provide us with our daily requirements of copper. Copper deficiency is usually only found in children suffering from malnutrition and can cause breathing difficulties and skin problems as well as a lack of resistance to disease.

Another health problem linked to a copper deficiency is anaemia. This is a condition that occurs when red blood cells do not carry enough oxygen to the body tissues. Because copper helps absorb iron, which maintains red blood cells, someone with a lack of copper in their system could become anaemic. The symptoms of anaemia include tiredness, weakness and difficulty in thinking clearly.

But it is also important that we don't overdo it. A diet including too much copper can be harmful. It can cause nausea and intestinal disorders as well as reducing resistance to infection. However many people who suffer from rheumatism and arthritis say that wearing a copper bracelet helps to relieve the pain. Some even swear that it helps them get rid of headaches.

Text 4

World Food Problems

The essence of agricultural enterprise is providing food, the right food to sustain people's life and their health. All people must not only have enough to eat, but they must have enough information to know what to eat. A healthy diet is the cornerstone of good health. Many people work in the field of nutrition and meal planning, among them agricultural producers, educators, and students.

Availability of food within a country is often not a problem; it is the lack of purchasing power that is the problem. Incomes in many developing countries are insufficient to purchase a nutritionally adequate diet. In 1990, per capita GNP in the developed countries exceeded \$20 000. Incomes in the developing countries averaged less than \$1 000. The problem lies not only in the low income levels, but also in low growth rates. Too little food and a limited variety of food are serious problems in a great number of developing countries, particularly in Africa. Both problems can usually be traced to resource characteristics, government policies, or both. Hot desert winds, infrequent rains contribute to low yield of a few adapted crops.

It is well known that a lot of the world's people do not live where much of the world's food is produced. Industrial countries produce about half of the world's grain, but they have less than fourth of the world's population. In most cases, it is possible to reduce both chronic and transitory food problems, but solutions can be costly and they require planning.

Text 5

The Story of English

Nearly two thousand years ago the Romans invaded Britain and then stayed there for 400 years. The Britons didn't learn Latin; they continued to speak their Celtic language.

The Angles and the Saxons came from Germany, and spoke a Germanic language. They invaded Britain in the 7th century, and they pushed the Celtic speakers into Scotland and Wales. Today some people in Wales, Scotland and Ireland still speak Celtic languages.

In 1066 William the Conqueror and the Normans invaded England. They came from Normandy in France, and they spoke French. At first the two languages were quite separate. The King and the aristocrats spoke French, and the ordinary people went on speaking Anglo-Saxon. But slowly they mixed, their children played together, and Normans married Anglo-Saxons. And little by little the languages also mixed. The result was English. The grammar (including word order) was mostly Anglo-Saxon, and a lot of words were French.

Chaucer wrote *The Canterbury Tales* in about 1387. It was one of the first books in English.

Text 6

Ecology

1 Ecology is the study of the interactions between organisms and their environment. The biosphere is a closed system. All of the materials essential to life come from within it and must be recycled over and over for life to continue.

2 The biosphere is divided into regions, called biomes, each with unique plant and animal life. A biome is a region with a particular climate and thus a particular type of vegetation and animal life. Precipitation and temperature are the most important climatic factors.

3 Ecosystems are networks consisting of organisms, their environment, and all the interactions that exist between them. Ecosystems consist of biotic (living) and abiotic (nonliving) components. The biotic components are physical and chemical factors needed for life. These are fungi, plants, animals and microorganisms.

4 Each organism operates within a range of tolerance. In all ecosystems one abiotic factor usually limits growth and is therefore called a limiting factor. Rainfall, temperature, sunlight etc. are called abiotic factors.

5 Organic matter produced by living things is called biomass. Productivity is the measure of biomass production. Regions with high productivity, such as tropical rain forests, are important to people because they supply many valuable resources.

Text 7

Parts of Plants

1 There are two main parts of the plant, the root system below the ground and the stem and leaves which are above the ground. In some cases roots are found above ground and stems grow below. The plants have roots, leaves, main stem, flowers.

2 The root fixes the plant in the soil, takes in food and water, and in some cases stores food. The stem supports the leaves and flower which grow out of it, acts as channel between roots and the leaves, taking water and foods from one to the other, and sometimes is used for storage.

3 The leaves are green, thin and arranged on the stem so that they get as much light and air as possible. Inside the leaf are veins which strengthen it and carry water and foods.

4 The flower only appears at certain times in the in the life of the plant. The stamens, the male part of the flower, produce pollen which fertilize the female part of the flower, and this leads to the formation of a seed which ripens on the plant.

Text 8

Canada – Natural Paradise

Canada is the second biggest country in the world. Canada covers almost 4 million square miles. Half of that is forest. You can see eagles, grizzly bears, polar bears and caribou. You can camp, drive, swim, canoe, climb, walk, ride horses and go fishing.

There are about 40,000 polar bears in the world, most of them in Canada. The polar bear is the biggest in the bear family. They weigh up to 500 kilos. They eat grass and seaweed (морская водоросль), but their favourite food is seals. They wait near holes in the ice and catch the seals.

They have hair on their feet. And they can run at 40 km/hr on the ice. They are very dangerous for seals and for humans!

The Blue Whale is believed to be the largest animal at up to 33 meters in length and 181 metric tons in weight. Scientists estimate that Blue Whales can live for at least eighty years. Whales are no longer killed today along the coasts of the USA and Canada. Boats still look for whales and follow them. But people in the boats want live whales, not dead ones. Whale-watching is the big new craze for tourists in North America. From a small boat you can even touch these friendly monsters.

Text 9

Traditional Meals in Britain

The usual meals in Britain are breakfast, lunch, tea and supper. Breakfast is generally a bigger meal than they have on the continent, though some English people like a continental breakfast of rolls, butter and coffee. But the usual English breakfast is porridge or cornflakes with milk or cream and sugar bacon and eggs, marmalade made from oranges with buttered toasts and tea or coffee. For a change you can have a boiled egg, cold ham or, perhaps, fish.

People in Britain generally have lunch about one o'clock. A businessman in London usually finds it impossible to come home for lunch, and so he goes to a café or restaurant, but if he is making lunch at home, he has cold meat, potatoes, salad and pickles with a pudding of fruit to follow. Sometimes people have a mutton chop or steak and chips followed by biscuits or cheese, and some people like glass of light beer with lunch.

Afternoon tea you could hardly call a meal but it is a sociable sort of thing as friends often come in for a chat while they have their cup of tea with a cake or biscuit.

Some people also have "high tea". They have it between five and six o'clock.

Text 10

The Platypus

In the rivers of south-eastern Australia, you can find an animal called a "platypus" (утконос). The platypus is one of the strangest animals in the

world. It exists only in Australia and belongs to a group of animals called “monotremes”.

When Europeans first saw an example of the animal in the 1700s, they thought it was a joke. They hadn’t seen anything like it before and they refused to believe that it was a real animal.

A second example arrived from Australia, and then more, and the scientists realized that this unusual creatures was real.

Today, the platypus lives in the waters around south-east Australia. It is not very rare, but some people worry that water pollution could be a problem as the water around Sydney gets dirtier. We still don’t know much about this mysterious animal and we have a lot to learn.

Text 11

The Tower of London

The Tower of London has become one of the most recognizable symbol of the city of London, and of Britain as a whole. It was built by William the Conqueror in 1078 and the construction of the Tower took 20 years from start to finish.

The height of the Tower (almost 30 metres) and the thickness of the walls made it a perfect prison. Famous prisoners held in the Tower include Elizabeth (later Queen Elizabeth I) and King Edward V.

In the thirteenth century, King Henry III added many buildings to the Tower, including a church and even a zoo.

Today, many thousands of visitors come to the Tower each year and learn all about the history of this interesting place.

Text 12

Camel

Camels are famous because they can walk further across deserts than other kind of animal. They can travel for days in places where temperatures are as high as 40 degrees and where the rainfall can be as low as 20 mm per year. They often carry heavy loads in these conditions, but people don’t only use them for transportation. Camels also produce milk, and because they can weigh as much as 700 kilograms, they also provide a lot of meat. So camels have many great qualities, but how many of us would describe camels as beautiful?

Camels have a large hump, strange knees, skinny legs and ugly teeth. They are not beautiful. But not everyone agrees. Once a year, people bring their camels to an area of land in Abu Dhabi. They are here to find the most beautiful camel. There are around 24000 camels in the competition which lasts ten days and the judges have to find the best for the final day.

Text 13

Reading books

Reading plays a very important role in the life of people. It educates a person, enriches his intellect. Books help to mould a person's character, from his moral values. Besides, books bring pleasure and delight. It's a wonderful way of spending spare time. Sometimes we read the same book again and again. Thanks to books we learn to express our thoughts and feelings more exactly. The book is faithful and understanding friend.

Books appeared ages ago and took different forms. The oldest form is probably the roll (30-40 centuries B.C.). It appeared in Ancient Egypt, and was as well used in Ancient Greece. The Egyptians used papyrus, brush and red and black ink to draw hieroglyphs, which at first meant things and animals and then started to mean sounds. Another ancient form was codex where pages were put one on another. The form of codex was used in Mesopotamia (where the pages were made of clay), Rome and other countries. The Chinese invented paper, before this important invention people used different materials, mostly skins of animals. The books were copied by hand and cost a whole fortune. Later the printing press was invented so the books became popular and rather cheap. The first printed book was produced in Korea in the 8th century. In China the printing press began to work in the 11th century, in Europe – in the 15th century.

There are many genres of books around us. They can be divided into fiction and non-fiction books.

Non-fiction books contain real information and are used for education and work. They are reference books, dictionaries, atlases, biographies and autobiographies, scientific reports, textbooks and encyclopedias.

Fiction books are written to give pleasure. This word is mostly used when we speak about stories, novels and romances. «War and Peace» by Leo Tolstoy is an example of fiction. But the young usually prefer fantasy books and science fiction. The difference between them is the following: fantasy books usually describe the events and countries in the form of a

legend and narrate about the past. A good example of fantasy is «Conan the Barbarian»; science fiction books describe events in the future, the characters and places are given as imaginary and usually take place in the future. «Starship Troopers» by Heinlein, «Stainless Steel Rat» (Крыса из нержавеющей стали) by Harry Harrison are examples of the style.

References

1. Klekovkina, Ye. Practice tests for the Russian State Exam / Ye. Klekovkina, Malcolm Mann, Steve Taylore-Knowels. – Macmillan Education, Oxford OX4 3PP, 2010. – 247 p.
2. ru.wikipedia.org/wiki/Ветеринария
3. en.wikipedia.org/wiki/Food_technology
4. Данилова, Л.Ю. Agriculture Challenging Opportunities. учебное пособие по английскому языку для студентов сельскохозяйственных вузов. – Ижевск: ФГОУ ВПО Ижевская ГСХА, 2007. – 214 с.
5. en.wikipedia.org/wiki/List_of_pig_breeds
6. www.nda.agric.za/docs/pigs1/breeding.htm
7. Никонова, Н.А. Английский язык. Программа, учебно-тематический материал, тесты, грамматический справочник, тексты для дополнительного чтения по специальности, словарь (для студентов биотехнологического факультета специальностей «Технология производства и переработки сельскохозяйственной продукции» и «Зоотехния»). – Ульяновск: ГСХА, 2009. – 152с.
8. [en.wikipedia.org/wiki/Cows_\(band\)](http://en.wikipedia.org/wiki/Cows_(band))
9. simple.wikipedia.org/wiki/Cattle
10. en.academic.ru/dic.nsf/enwiki/6636494
11. en.wikipedia.org/wiki/Poultry_farming

Содержание

Unit 1 Career in agriculture.....	3
Unit 2 The world of animals	17
Unit 3 Cattle	33
Unit 4 Pigs	46
Unit 5 Poultry-farming	57
Unit 6 Meat.....	67
Unit 7 Milk	80
Unit 8 Veterinary service	92
Training texts.....	104
References.....	119

Светлана Юрьевна Дмитриева
Эльмира Мяхмутовна Карпузова

English for technologists and veterinarians
Английский язык для технологов и ветеринаров

Учебное пособие

Компьютерная верстка Э.М. Карпузовой

Сдано в производство

Формат 60x84 1/16

Бумага Гознак Print

Усл. печ. л. 7

Тираж 100 экз.

Заказ №

РИО ПГАУ

440014 г. Пенза, ул. Ботаническая, 30

