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ENGLISH FOR INDUSTRIAL DESIGNERS

Ижевск 2011

Министерство образования и науки Российской Федерации
ГОУВПО «Удмуртский государственный университет»
Факультет профессионального иностранного языка

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English for Industrial Designers

Учебно-методическое пособие

Ижевск 2011

УДК 811.111(075)
ББК 81.432.1-923
Х 172

Рекомендовано к изданию
Учебно-методическим советом УдГУ

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Х 172 **English for Industrial Designers:** учеб.-метод. пособие по английскому языку для бакалавров ИИиД, профиля «Промышленный дизайн»; Ижевск: Изд-во «Удмуртский университет», 2011. 130 с.

Учебно-методическое пособие предназначено для бакалавров профиля «Промышленный дизайн». Пособие включает материал, связанный с общими вопросами дизайна, а также с историей и теорией промышленного дизайна.

Пособие может быть использовано для занятий с магистрами и студентами, получающими дополнительную квалификацию по направлению «Переводчик в сфере профессиональной коммуникации».

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Предисловие

Учебно-методическое пособие предназначено для студентов-бакалавров направления «Дизайн» профиля «Промышленный дизайн». Пособие соответствует программным требованиям Федерального государственного образовательного стандарта.

Актуальность создания данного пособия обусловлена тем, что для бакалавров дизайна не существует узкоспециализированных учебных изданий по английскому языку, посвященных промышленному дизайну.

Целью учебно-методического пособия «English for Industrial Designers» является обучение профессиональному иностранному языку студентов-бакалавров специальности «Промышленный дизайн». Пособие предназначено для обучения чтению и переводу профессиональных текстов, а также для овладения специализированной лексикой и закрепление грамматических явлений, изученных в курсе «General English».

Данная разработка имеет своей целью формирование таких компетенций как способность к обобщению, анализу, восприятию информации, способность логически верно, аргументированно и ясно строить устную и письменную речь, способность адекватно переводить аутентичные тексты с английского языка на русский язык.

Пособие состоит из двух частей: «What is design?» и «Industrial Design». Первая часть охватывает общие вопросы дизайна: история дизайна, терминология, цветовая теория, материалы, стили и т.д. В данном разделе предлагаются термины и выражения, наиболее употребляемые в сфере дизайна. Поэтому здесь рекомендуется обратить особое внимание на овладение лексикой, не забывая о произношении слов. Грамматические упражнения данной части включают в основном задания на закрепление видовременных форм глагола.

Вторая часть связана непосредственно с промышленным дизайном. Здесь представлены тексты об эргономике, автомобильной промышленности, известных дизайнерах и т.д. На данном этапе следует обратить особое внимание на обучение переводу текстов, а также на развитие коммуникативных компетенций в данной области. Грамматические упражнения в этом разделе могут представлять сложность для студентов, поэтому рекомендуется предварительно проработать соответствующий раздел английской грамматики.

Каждый из разделов пособия построен таким образом, чтобы процесс овладения материалом был доступным и в то же время максимально эффективным. В начале урока предлагается ознакомиться с новыми лексическими единицами раздела, отработать их произношение. Далее студентам предложены текст и тренировочные упражнения на закрепление лексики и грамматики текста. Затем следуют задания на понимание текста и на развитие коммуникативных умений. В качестве дополнительного материала предложены разнообразные задания для работы в Интернете (схемы, иллюстрации, образцы эссе и т.д.), которые завершают процесс закрепления полученных знаний и стимулируют интерес к предмету. Таким образом, пособие отличается разнообразием видов и форм упражнений, в то же время сохраняя логичную и доступную структуру изложения.

Пособие может быть использовано на практических и самостоятельных занятиях бакалавров, в учебно-исследовательской работе магистров, а также во время переводческой практики студентов, получающих дополнительную квалификацию по направлению «Переводчик в сфере профессиональной коммуникации».

Автор-составитель

PART ONE
LESSON 1
WHAT IS DESIGN?

Active vocabulary of the lesson:
term – термин
research – исследование
consumer – потребитель
quality – качество
solution – решение
development – развитие, разработка
improvement – улучшение
evaluation – оценка
to deal with – иметь дело/работать с чем-либо/кем-либо
to apply – применять
to satisfy – удовлетворять
to require – требовать
aesthetic – эстетический

I. Read and translate the text and give the main idea.

Design is the planning that lays the basis for the making of every object or system. It can be used both as a noun and as a verb and, in a broader way, it means applied arts and engineering. As a verb, "to design" refers to the process of originating and developing a plan for a product, structure, system, or component with intention. As a noun, "a design" is used for either the final (solution) plan (e.g. proposal, drawing, model, description) or the result of implementing that plan in the form of the final product of a design process. This classification aside, in its broadest sense no other limitations exist and the final product can be anything from socks and jewellery to graphical user interfaces and charts. Even virtual concepts such as corporate identity and cultural traditions such as celebration of certain holidays are sometimes designed. More recently,

processes (in general) have also been treated as products of design, giving new meaning to the term "process design". The person designing is called a designer, which is also a term used for people who work professionally in one of the various design areas, usually also specifying which area is being dealt with (such as a fashion designer, concept designer or web designer). Designing often requires a designer to consider the aesthetic, functional, and many other aspects of an object or a process, which usually requires considerable research, thought, modelling, interactive adjustment, and re-design.

According to video game developer Dino Dini in a talk given at the 2005 Game Design and Technology Workshop held by Liverpool JM University, design underpins every form of creation from objects such as chairs to the way we plan and execute our lives. For this reason it is useful to seek out some common structure that can be applied to any kind of design, whether this be for video games, consumer products or one's own personal life. For such an important concept, the question "What is Design?" appears to yield answers with limited usefulness. Dino Dini states that the design process can be defined as "The management of constraints". He identifies two kinds of constraint, negotiable and non-negotiable. The first step in the design process is the identification, classification and selection of constraints. The process of design then proceeds from here by manipulating design variables so as to satisfy the non-negotiable constraints and optimizing those which are negotiable. It is possible for a set of non-negotiable constraints to be in conflict resulting in a design with no solution; in this case the non-negotiable constraints must be revised. For example, take the design of a chair. A chair must support a certain weight to be useful, and this is a non-negotiable constraint. The cost of producing the chair might be another. The choice of materials and the aesthetic qualities of the chair might be negotiable. Dino Dini theorizes that poor designs occur as a result of mis-

managed constraints, something he claims can be seen in the way the video game industry makes "Must be Fun" a negotiable constraint where he believes it should be non-negotiable.

It should be noted that "the management of constraints" may not include the whole of what is involved in "constraint management" as defined in the context of a broader Theory of Constraints, depending on the scope of a design or a designer's position.

A design process may include a series of steps followed by designers. Depending on the product or service, some of these stages may be irrelevant, ignored in real-world situations in order to save time, reduce cost, or because they may be redundant in the situation.

Typical stages of the design process include:

Pre-production design

1. Design brief or Parti - the beginning statement of design goals.
2. Analysis - analysis of current design goals.
3. Research - investigating similar design solutions in the field or related topics.
4. Specification - specifying requirements of a design solution for a product (product design specification) or service.
5. Problem solving - conceptualizing and documenting design solutions.
6. Presentation - presenting design solutions.

Design during production

1. Development - continuation and improvement of a designed solution.
2. Testing - in-situ testing a designed solution.

Post-production design feedback for future designs

1. Implementation - introducing the designed solution into the environment.

2. Evaluation and conclusion - summary of process and results, including constructive criticism and suggestions for future improvements.

Redesign - any or all stages in the design process repeated (with corrections made) at any time before, during, or after production.

These stages are not universally accepted but do relate typical design process activities. For each activity there are many best practices for completing them.

II. Answer the questions:

1) What does 'process design' presuppose?
2) What spheres of our life does a designer deal with?
3) How do you personally understand Dino Dini's term 'the management of constraints'?
4) What examples of negotiable and non-negotiable constraints can you give?
5) What steps does the design process consist of according to production?
6) Which of the steps do you find most important?
7) Which of the steps would you eliminate?
8) How do you personally understand the word 'feedback'? Why is it vital?

III. True or false:

1) Design and engineering are entirely different notions.
2) Designers are people who work professionally in one of the various design areas.
3) A designer is supposed to only consider the aesthetic aspect of an object.
4) Processes can't be considered as products of design.
5) There are just two stages in design process.
6) Redesign presupposes correcting mistakes that occurred during design process.

7) Implementation is one of the most important stages.
8) Why is evaluation necessary in the end of production?

LEXICAL EXERCISES

I. Make up expressions with the given new words:
design, research, process, consumer, functional, stage, solution, improvement, analysis.

II. Word building. Fill in the gaps in the table below:

Nouns	Verbs	Adjectives	Adverbs
design	…	…	…
…	to improve	…	…
…	…	functional	…
solution	…	…	…
…	…	…	professionally
…	to consume	…	…
…	…	…	recently
analysis	…	…	…
…	to develop	…	…
product	…	…	…
…	…	aesthetic	…
…	to require	…	…
…	…	…	universally

III. Find out words synonymous to:
area, scope, definition, step, cost, drawing, problem, products, to note, to seek.

IV. Find out words antonymous to:
broad, useful, to reduce, poor, possible, whole, best.

V. Translate and remember the following expressions:
top quality, top service, poor quality, poor design, to solve a problem, step by step, to achieve a goal, in a broad sense, common sense.

GRAMMAR EXERCISES

I. Identify verb forms in the following phrases:
can be used, applied art, design is used, are designed, processes have been treated, is called, which area is being dealt with, requires to consider, appears to yield, by manipulating, constraints must be revised, take the design of a chair, can be seen, should be noted, as defined, depending on the scope, do relate, there are many best practices.

II. Make the following sentences negative:
1) The first step in the design process is the identification, classification and selection of constraints.
2) Dino Dini states that the design process can be defined as "the management of constraints".
3) A chair must support a certain weight to be useful, and this is a non-negotiable constraint.
4) For each activity there are many best practices for completing them.
5) The cost of producing the chair might be another.
6) The process of design then proceeds from here by manipulating design variables.
7) He identifies two kinds of constraints, negotiable and non-negotiable.

III. Make up questions:
1) word / mean / does / the / what / design / ?
2) consider / what / have to / designer / a / aspects / does / ?

3) stages / design / process / include / the / what / does / ?
4) what / designers / you / know / do / of / types / ?

IV. Fill in the gaps using the Present Simple Tense:
1) Designers … (consider) lots of aspects.
2) Design … (be) both applied arts and engineering.
3) There … (be) two kinds of constraints.
4) Poor design … (occur) as a result of mismanaged constraints.
5) The design process … (include) several stages.
6) Dino Dini … (use) the term 'constraint'.
7) Not all stages … (be) relevant.
8) Each stage … (consist) of several steps.
9) Redesign … (mean) improvement.
10) Dino Dini … (suppose) that the choice of materials … (to be) negotiable.

DISCUSSION

Prepare a story on the topic. You can choose one of the following:
a) The Role of Arts and Design in Our Life.
b) Main Aspects of Design.
c) Why Did You Decide to Become a Designer?

ADDITIONAL TASKS

Read the proverbs about art and design and learn those that you like most:
http://www.best-quotes-poems.com/design-quotes.html

LESSON 2
THE TERM “DESIGN”

Active vocabulary of the lesson:
ambiguous – (зд.) многозначный
rigorous – строгий
to define – определять
distinction – различие
realm – царство, королевство
applied art – прикладное искусство
to initiate – инициировать
to imply – подразумевать
conscious – сознательный
to convey – передавать
obvious – явный, очевидный

I. Read and translate the text and give the main idea.

The word "design" is often considered ambiguous depending on the application.

Design is often viewed as a more rigorous form of art, or art with a clearly defined purpose. The distinction is usually made when someone other than the artist is defining the purpose. In graphic arts the distinction is often made between fine art and commercial art.

In the realm of the arts, design is more relevant to the "applied" arts, such as architecture and industrial design. In fact today the term design is widely associated to modern industrial product design as initiated by Raymond Loewy and teachings at the Bauhaus and Ulm School of Design (HfG Ulm) in Germany during the 20th Century.

Design implies a conscious effort to create something that is both functional and aesthetically pleasing. For example, a graphic artist may design an advertisement poster. This person's job is to communicate the advertisement message (func-

tional aspect) and to make it look good (aesthetically pleasing). The distinction between pure and applied arts is not completely clear, but one may consider Jackson Pollock's (often criticized as "splatter") paintings as an example of pure art. One may assume his art does not convey a message based on the obvious differences between an advertisement poster and the mere possibility of an abstract message of a Jackson Pollock painting. One may speculate that Pollock, when painting, worked more intuitively than would a graphic artist, when consciously designing a poster. However, Mark Getlein suggests the principles of design are "almost instinctive", "built-in", "natural", and part of "our sense of 'rightness'." Pollock, as a trained artist, may have utilized design whether conscious or not.

II. Answer the questions:

1) What's design?
2) Is there any difference between design and other forms of art?
3) What other forms of art do you know?
4) Why should designers consider both aesthetic and functional aspects? Can you give your own example?
5) Who was the originator of the term design?
6) Can you give your own definition of 'design'?
7) How do you understand the term 'pure art'?

III. True or false:

1) Design is a very vague notion.
2) Design is an extremely rigorous form of art.
3) Design belongs to applied arts.
4) Designers don't care about the attractiveness of the product.
5) Designers hardly ever create anything functional.
6) Designers differ from artists a lot.
7) Design should convey a message.

IV. Make up full sentences:
1) Design is …
2) Design and fine art …
3) Function and aesthetics …
4) Designers are people who …
5) Design was defined by …
6) Design combines …
7) Design is a form of art which …

LEXICAL EXERCISES

I. Give your own definitions of the words:
fine arts, applied art, design, visual arts, pure art, aesthetic.

II. Word building. Fill in the gaps in the table below:

Nouns	Verbs	Adjectives	Adverbs
…	…	ambiguous	…
clarity	…	…	…
relevance	…	…	…
conscience	…	…	…
…	…	distinctive	…
assumption	…	…	…
…	…	…	intuitively

III. Find out words synonymous to:
vague, strict, aim, difference, kingdom, to originate, to ponder, subconsciously, experienced.

IV. Find out words antonymous to:
transparent, similarity, artificial, inexperienced, out-dated.

V. Translate the following expressions and use them in your own situations:
ambiguous notion, applied art, fine arts, relevant information, advertisement poster, obvious difference, to be on one's own right, advertising agency.

GRAMMAR EXERCISES

I. Identify the following verb forms:
is often considered, is often viewed, defined, is defining, initiated by Raymond Loewy, implies, may design, is to communicate, one may consider, does not convey, based, when designing, suggests, trained.

II. Make the following sentences negative:
1) The word "design" is often considered ambiguous.
2) Design implies a conscious effort to create something that is both functional and aesthetically pleasing.
3) Pollock, as a trained artist, may have utilized design whether conscious or not.
4) He worked more intuitively than would a graphic artist.
5) A graphic artist may design an advertisement poster.
6) In graphic arts the distinction is often made between fine art and commercial art.

III. Make up questions:
1) A graphic artist may design an advertisement poster.
2) Design is often viewed as a more rigorous form of art.
3) Mark Getlein suggests the principles of design are "almost instinctive", "built-in", "natural", and part of "our sense of 'rightness'."
4) Design implies a conscious effort to create something that is both functional and aesthetic.

5) Design is more relevant to the "applied" arts, such as architecture and industrial design.
6) This person's job is to communicate the advertisement message and to make it look good.

IV. Fill in the gaps using the Passive Voice and the Present Simple Tense:
1) Design … (to consider) a rigorous form of art.
2) Architecture and industrial design … (to suppose) to be applied arts.
3) Graphic design … (to associate) with advertisements and posters.
4) Designers … (to think) to have intuition.
5) Pollock … (to consider) a trained artist.
6) Designers … (to suppose) to have good intuition and active imagination.
7) He … (to say) to be a gifted artist.
8) They … (to invite) to art galleries and exhibitions rather often.
9) John's projects … (to laugh at) always.
10) They … (to say) to have their own advertising agency.

DISCUSSION

Prepare a report about another sphere of art:
a) Fine Arts; b) Architecture; c) Fashion Design; d) Sculpture.

ADDITIONAL TASKS

Read the following definitions and then give your own ones:
http://en.wikipedia.org/wiki/Art
http://en.wikipedia.org/wiki/Designer
http://en.wikipedia.org/wiki/Artist

LESSON 3
TYPES OF DESIGNERS

Active vocabulary of the lesson:
landscape – ландшафт, пейзаж
skill – навык
lighting – освещение
garments – одежда
freelancer – лицо свободной профессии, внештатник
urban – городской
fiber – нить
yarn – пряжа
space – пространство
team – команда

I. Read and translate the text and give the main idea.
Architectural designer
An architectural designer is an architect that is primarily involved in the design of buildings or urban landscapes, as opposed to the construction documents and management required to construct it. Architectural designers have good creative skills, imagination and artistic talent.
Costume designer
A costume designer is a person whose responsibility is to design costumes for a film or stage production. He or she is considered part of the "production team", alongside the director, scenic and lighting designers as well as the sound designer. The costume designer might also collaborate with a hair/wig master or a makeup designer. In European theatre the role is somewhat different as the theatre designer will design both costume and scenic elements. Costume designers will typically seek to enhance a character's persona, and/or to create an evolving plot of colour, changing social status or period through the visual design of garments and other means of dressing, distorting and

enhancing the body - within the framework of the director's vision.

Fashion design

Fashion design is the applied art dedicated to clothing and lifestyle accessories created within the cultural and social influences of a specific time. It differs from costume design which is considered to have a built in obsolescence usually of one to two seasons. A season is defined as either autumn/winter or spring/summer. Fashion designers can work in a number of ways. Fashion designers may work full-time for one fashion company, known as in-house designers, which owns the designs. They may work alone or as part of a team. Freelance designers work for themselves, and sell their designs to fashion houses, directly to shops, or to clothing manufacturers.

Graphic design

The term graphic design can refer to a number of artistic and professional disciplines which focus on visual communication and presentation. Various methods are used to create and combine symbols, images and/or words to create a visual representation of ideas and messages. A graphic designer may use typography, visual arts and page layout techniques to produce the final result. Graphic design often refers to both the process (designing) by which the communication is created and the products (designs) which are generated. Common uses of graphic design include magazines, advertisements and product packaging.

Industrial design

Industrial design is an applied art whereby the aesthetics and usability of mass-produced products may be improved for marketability and production. The role of an Industrial Designer is to create and execute design solutions towards problems of form, usability, user ergonomics, engineering, marketing, brand development and sales. The term "industrial design" is often attributed to the designer Joseph Claude Sinel in 1919 (al-

though he himself denied it in later interviews) but the discipline predates that by at least a decade. Its origins lay in the industrialization of consumer products. For instance the Deutscher Werkbund, founded in 1907 and a precursor to the Bauhaus, was a state-sponsored effort to integrate traditional crafts and industrial mass-production techniques, to put Germany on a competitive footing with England and the United States.

Interior design

Interior design or Décor is a profession concerned with anything that is found inside a space - walls, windows, doors, finishes, textures, light, furnishings and furniture. All of these elements are used by interior designers to develop a functional, safe, and aesthetically pleasing space for a building's user. The work of an interior designer draws upon many disciplines including environmental psychology, architecture, product design, and traditional decoration (aesthetics and cosmetics). They plan the spaces of almost every type of building including: hotels, corporate spaces, schools, hospitals, private residences, shopping malls, restaurants, theatres, and airport terminals.

Landscape design

Landscape design is similar to landscape architecture. Landscape Design focuses more on the artistic merits of design, while Landscape Architecture encompasses the artistic design as well as structural engineering. Landscape design and Landscape Architecture, both take into account soils, drainage, climate and other issues, because the survival of selected plants depends on those. The establishment of landscape plants over a period of time is not landscape design, but is considered "landscape management". Landscape design is almost synonymous with garden design. Landscape architecture and landscape design can, and should, embrace garden design, landscape man-

agement, landscape engineering, landscape detailing, landscape urbanism, landscape assessment and landscape planning.

Scenic design

Scenic design is the creation of theatrical, as well as film or television scenery. Scenic designers have traditionally come from a variety of artistic backgrounds, but nowadays, generally speaking, they are trained professionals, often with M.F.A. degrees in theatre arts. The 'stage picture' is the 'look' or physical appearance of the stage for a play, whether in rehearsal or performance. It reflects the way that the stage is composed artistically in regard to props, actors, shapes and colours. The stage picture should express good principles of design and use of space. It should be visually appealing for the audience or should express the show's concept. The stage picture is also crucial for the creation of atmosphere for the audience.

Textile design

Textile design is the process of creating designs for knitted, woven or printed fabrics. Successful textile designers marry a creative vision of what a finished textile will look like with a deep understanding of the technical aspects of production and the properties of fibre, yarn, and dyes. Designs for both woven and printed textiles often begin with a drawing or watercolour sketch of the finished design. Traditionally, drawings of woven textile patterns were translated onto special forms of graph paper called point papers which were used by the weavers in setting up their looms. Today, most professional textile designers use some form of computer-aided design software created expressly for this purpose.

II. Answer the questions:

1) What skills are vital to become an architectural designer?
2) Why does a costume designer have to possess an artistic talent?

3) What's the main difference between costume and fashion designers?
4) What should a fashion designer take into consideration while making a garment?
5) What objects are produced with the help of graphic designers?
6) Why do we need industrial design?
7) What makes industrial design quite a hard discipline to learn?
8) Can you give synonyms to 'landscape design'?
9) What spheres of human activity can textile design production be applied in?

III. True or false:
1) A costume designer is a person who designs clothing and accessories for everyday life.
2) Architectural design has nothing to do with landscape design.
3) A graphic designer works with words and symbols.
4) Industrial design deals with all sorts of products but for consumer goods.
5) An interior designer has to create both functional and beautiful space to please a customer.
6) Scenic designers have no special education and normally come from artistic backgrounds.

IV. Fill in the gaps:
1) Each designer is supposed to have creative ... and active … .
2) He is a … artist, so he works for himself and has no experience of working in a team.
3) In his pictures he depicts both country and … landscapes.
4) Textile designers produce various …, such as cotton, wool, velvet, velveteen, silk.

5) He has a tiny flat, so there is very little … for such a big family.
6) Artists often … their feelings and thoughts in their masterpieces.
7) I think he's too reserved. He can't work in a … .
8) Have you ever … your hair? – No, I like my natural colour.

LEXICAL EXERCISES

I. Make up expressions with the given new words:
skills, team, freelance, technique, creative, audience, advertisement, landscape, brand.

II. Find out words synonymous to:
manufacturer, layout, garment, to focus, to enhance, method, common, to execute, profession, crucial, purpose.

III. Word building. Fill in the gaps in the table below:

Nouns	Verbs	Adjectives	Adverbs
building	…	…	…
…	…	architectural	…
…	to create	…	…
skill	…	…	…
scene	…	…	…
…	…	…	typically
…	…	traditional	…
space	…	…	…
urbanism	…	…	…
…	…	artistic	…

IV. Find out words antonymous to:
full-time, urban, to sell, safe, similar, merit, background.

V. Translate and remember the following phrases:
full-time job, part-time job, freelance artist, makeup artist, consumer goods, craftsmen, shopping mall, target audience.

GRAMMAR EXERCISES

I. Identify the following verb forms:
is primarily involved, is involved, differs, may work, is defined, are used, to create, are generated, is often attributed, founded, take into account, have traditionally come, should be visually appealing.

II. Make the following sentences negative:
1) Architectural designers have good creative skills, imagination and artistic talent.
2) All of these elements are used by interior designers to develop a functional, safe, and aesthetically pleasing space for a building's user.
3) Scenic designers have traditionally come from a variety of artistic backgrounds.
4) It reflects the way that the stage is composed artistically in regard to props, actors, shapes and colours.
5) It should be visually appealing for the audience or should express the show's concept.
6) Designs for both woven and printed textiles often begin with a drawing or watercolour sketch of the finished design.
7) Graphic design often refers to both the process (designing) by which the communication is created and the products (designs) which are generated.

III. Make up questions:
1) graphic / in / be / can / where / applied / design / ?
2) sort / of / for / work / themselves / what / designers / ?
3) what / space / kind / plan / designers / do / interior / of / ?

4) the / design / architecture / between / what / is / landscape / landscape / and / difference / ?
5) textile / use / design / for / do / designers / computer-aided / software / what / ?

IV. Fill in the gaps using modal verbs (need, can, should, must):
1) Designers … read magazines on design and attend art exhibitions as often as possible.
2) Designers … to have job experience.
3) Designers … satisfy the customer's taste first of all.
4) Designers … have no education.
5) Designers … to experiment with their own dwellings.
6) Designers … establish connections.
7) Designers … have computer skills nowadays.
8) Designers … be rude with the client.
9) Designers … follow fashion trends.
10) Designers … speak English well.

DISCUSSION

Prepare a story and tell it in class. Choose among the following:
a) My Favourite Area of Design.
b) Fields of Design Especially Demanded Nowadays.
c) What Skills are Vital for Each Type of Designers?

ADDITIONAL TASKS

Read the article and find out new types of design:
http://www.designcouncil.org.uk/about-design/Types-of-design

LESSON 4
COLOUR

Active vocabulary of the lesson:
colour / color – цвет
hue / shade – оттенок, тон
palette – палитра
multi-coloured – разноцветный
monochromatic – монохромный
achromatic – бесцветный
black-and-white – черно-белый
transparent – прозрачный
translucent – полупрозрачный
colourful – цветной, яркий
bright – яркий
dark green – темно-зеленый
light green – светло-зеленый
yellowish – желтоватый
beige – бежевый
pale – бледный
scarlet – алый
lilac – лиловый, сиреневый
turquoise – бирюзовый
azure – лазурный
jet black – угольно-черный

I. Read and translate the text and give the main idea.

Colour theory

Colour theory encompasses a multitude of definitions, concepts and design applications. As an introduction, here are a few basic concepts.

A colour circle, based on red, yellow and blue, is traditional in the field of art. Sir Isaac Newton developed the first circular diagram of colours in 1666.

Primary colours – red, yellow and blue. In traditional colour theory, these are the 3 pigment colours that can not be mixed or formed by any combination of other colours. All other colours are derived from these 3 hues. Secondary colours – green, orange and purple. These are the colours formed by mixing the primary colours. Tertiary colours – yellow-orange, red-orange, red-purple, blue-purple, blue-green and yellow-green. These are the colours formed by mixing one primary and one secondary colour.

Colour harmony

There are many theories for harmony. Here are some basic formulas.

1) A colour scheme based on analogous colours. Analogous colours are any three colours which are side by side on a 12 part colour wheel, such as yellow-green, yellow, and yellow-orange. Usually one of the three colours predominates.

2) A colour scheme based on complementary colours. Complementary colours are any two colours which are directly opposite each other, such as red and green and red-purple and yellow-green.

3) A colour scheme based on nature. Nature provides a perfect departure point for colour harmony.

When you choose a colour scheme, you're also choosing a mood. Research shows that colours can have a powerful effect on your state of mind: choose the wrong colour for a room and it could make you feel depressed, sluggish, irritable or anxious every time you walk into it. To make your home work for you, it's a good idea to decide which particular feelings and activities you'd like each room to encourage, and then choose your colour schemes accordingly.

White provides a blank canvas and allows your feelings full play. Choose it, if you want to feel open to new ideas and need space to think. Avoid it, if you're feeling unsure or insecure.

Like those one-size clothes, **cream** fits everyone but only really suits a few. Choose it as a calm backdrop to an intense lifestyle. Avoid it, if you feel uninteresting or lacking in sparkle.

Red is a stimulating colour if you're confident and versatile, overpowering if you're not. Bright reds spell sexiness. Choose it, if you're an extrovert in all areas of life. Avoid it, if you tire easily, often feel pressured or irritable or if you suffer from claustrophobia.

Orange is impulsive and friendly. It is often chosen by fatalists who take life as it comes. Choose it if you're outgoing and want to create a sociable atmosphere. Avoid it if you're under stress.

Pink blends caring and passion, hence its romantic associations. Choose it in warm shades for the bedroom. Avoid it in cool pastel tones, if you don't want to blunt your drive and energy.

Yellow is the colour of sunshine and optimism. Yellow is the choice of those who want to compensate for a lack of control in the outside world. Choose it, if you're feeling depressed or mentally sluggish. Avoid it, if you tend to be impulsive or slapdash.

Green is extremely restful and can have a deadening effect in activity areas. Choose it, if you're introverted or bookish. Avoid it, if you're lethargic or withdrawn.

Turquoise combines a soothing effect with a great sense of renewal and energy. Choose it to promote positive relaxation and to help fight insomnia. Avoid it: hardly ever. Such a well-balanced colour can be used anywhere.

Blue appeals to conventional and conformist types. Choose it to bring relaxation and harmony, to calm a driven nature. Avoid it, if you feel passive and unambitious about life.

Violet is a spiritual and meditative colour. Paler shades indicate emotional immaturity. Choose it, if you're extrovert

and to create grand impressions. Avoid it, if you're an introvert in any way.

Brown is colour of achievement, but it can be depressing if the shade is too dark. Choose it, if you're insecure, but lighten it with bright colour accents. Avoid it, if you're easily depressed.

Black is ultimate achievement colour. For those whose lives and personalities are completely formed. Choose it, if you're assured and successful or well on the way there. Avoid it, if you're low on self-confidence or anxious in any way.

Grey expresses achievement if used in darker tones. Lighter ones suggest a need to impress. Choose it in small quantities to make a confident statement. Avoid it over large areas, if you feel uninspired.

II. Answer the questions:

1) What groups of colours are there according to the colour theory?
2) How can you define the word "harmony"?
3) Why is harmony vital in our world?
4) Give an example of a harmonious colour scheme.
5) What colours make you feel secure, confident, calm?
6) Which of the above mentioned colours inspire energy, passion, friendliness, optimism?
7) What is your favourite colour? Why?

III. True or false:

1) There are 5 primary colours.
2) Red and green can be considered complementary colours.
3) If you're not confident enough you should choose white.
4) Cream suits bright personalities.
5) Orange fits easygoing people.
6) Yellow is perfect to cheer you up.
7) Green is a good choice for sluggish people.

8) Sociable people shouldn't wear violet.
9) Black can enhance anxiety.

IV. Fill in the gaps:
The colour of summer is …
The colour of royalty is …
The colour of cleanliness is …
The colour of passion is …
The colour of inexperience is …
The colour of romance is …
The colour of purity is …
The colour of coolness is …
The colour of revolution is …

LEXICAL EXERCISES

I. Make up expressions with the given words:
colour, hue, tone, shade, deep, dark, light, pale, bright.

II. Find out words synonymous to:
hue, colourful, outgoing, sluggish, restful, conventional.

III. Find out words antonymous to:
extrovert, friendly, sociable, dark, black-and-white, pale, anxious, self-confidence.

IV. Translate the following expressions and use them in your own situations:
grand impression, driven nature, intense lifestyle, blank canvas, side by side, ultimate achievement, to make a statement.

V. Word building. Fill in the gaps in the table below:

Nouns	Verbs	Adjectives	Adverbs

application	…	…	…
…	to combine	…	…
…	…	primary	…
harmony	…	…	…
…	…	…	basically
…	…	complementary	…
…	…	colourful	…
…	…	…	accordingly
…	…	sociable	…
…	to achieve	…	…
inspiration	…	…	…
…		dark	…
immaturity		…	…

GRAMMAR EXERCISES

I. Identify the following verb forms:
based, developed, you're choosing, can have, choose it, could make you feel, you'd like, provides, avoid it, is often chosen, don't want to blunt, tend to be, expresses, fits.

II. Make the following sentences negative:
1) There <u>are</u> many theories for harmony.
2) <u>Choose</u> it, if you're feeling depressed or mentally sluggish.
3) Pink <u>blends</u> caring and passion.
4) All other colours <u>are derived</u> from these 3 hues.
5) Research <u>shows</u> that colours can have a powerful effect on your state of mind.
6) Usually one of the three colours <u>predominates</u>.

III. Make up questions:
1) colour / what / colours / groups / theory / there / are / in / of / the / ?

2) circular / developed / of / when / was / diagram / the / colours / first / ?
3) hues / do / know / what / of / you / red / ?
4) colours / which / chosen / be / extroverts / by / should / ?
5) which / aren't / colours / introverts / for / recommended / ?

IV. Fill in the gaps (-ing or -ed):
1) John is an extremely … (to interest) person.
2) She is … (to interest) in painting.
3) Go for a walk if you feel … (to depress).
4) This book is rather sad. I think it's too … (to depress).
5) I love this club. The atmosphere here is very … (to relax).
6) Mary is so calm. She looks … (to relax) all the time.
7) I find strong personalities really … (to inspire).
8) I've always been … (to inspire) by his works.
9) Ann is a good wife. She is so … (to care).
10) Why are you so … (to reserve)? You've got to be more cheerful.

DISCUSSION

Prepare a report about:
a) Colours & Psychology.
b) Colours in Fashion & Design.
c) My Favourite Colours & Hues.

ADDITIONAL TASKS

Do one of the following tests:
http://www.colorquiz.com/
http://www.viewzone.com/luscher.html
http://www.testcolor.com/

LESSON 5
SHAPES

Active vocabulary of the lesson:
shape – форма
metaphor – метафора, образное выражение
to resemble – иметь сходство
curve – кривая линия, изгиб
projection – проекция
etymology – этимология, происхождение слова
elaborate – сложный, искусный
hourglass – песочные часы
cone – конус
bowtie – галстук-бабочка
bullet – пуля
spherical – сферический
mushroom – гриб
pear – груша
circular – круглый
scarab – жук-скарабей

I. Read and translate the text and give the main idea.

Many shapes have metaphorical names, i.e., their names are metaphors: these shapes are named after a most common object that has it. For example, "U-shape" is a shape that resembles the letter U, a bell-shaped curve has the shape of the vertical cross-section of a bell, etc.

These terms may variously refer to objects, their cross sections or projections. Some of these names are "classical terms", i.e., words of Latin or Ancient Greek etymology. Others are English language constructs (although the base words may have non-English etymology). In some disciplines, where shapes of subjects in question are a very important considera-

tion, the shape naming may be quite elaborate, see, e.g., the taxonomy of shapes of plant leaves in botany.

For example: **bell-shaped curve**; **biconic shape,** a shape in a way opposite to the hourglass: it is based on two oppositely oriented cones or truncated cones with their bases joined; **bowtie shape,** in two dimensions; **bow shape; bullet nose,** an open-ended hourglass; **butterfly curve**; **cone** (from the Greek word for « pine cone »); **egg-shaped**, see "oval", below; **fish bladder** or **lens shape** (the latter taking its name from the shape of the lentil seed); **geoid** (from Greek Ge (γη) for "Earth"), the term specifically introduced to denote the approximation of the shape of the Earth, which is approximately spherical, but not exactly so; **heart shape**, long been used for its varied symbolism; **hourglass shape** or **hourglass figure**, the one that resembles an hourglass; **dog bone shape**, an hourglass with rounded ends; **Lune**, from the Latin word for the Moon; **mushroom shape**, which became infamous as a result of the mushroom cloud; **oval** (from the Latin "ovum" for « egg »), a descriptive term applied to several kinds of "rounded" shapes, including the egg shape; **pear shaped**, in reference to the shape of a pear, i.e., a generally rounded shape, tapered towards the top and more spherical/circular at the bottom; **rod**, a 3-dimensional, solid (filled) cylinder; **scarabaeus curve**, resembling a scarab.

II. Answer the questions:

1) What types of word building do you know?
2) How did shapes acquire their names?
3) What metaphorical names of shapes did you find most interesting?
4) What shapes named after letters they resemble do you know?
5) What shapes are most widely spread?
6) What other shapes do you know?

7) What shapes do you prefer in your works, garments, patterns etc.?
8) Which shapes are considered popular and modern nowadays?

III. True or false:
1) All shapes have metaphorical names.
2) Most words denoting shapes are of Greek or Latin origin.
3) Mushroom shape got its name after eatable mushrooms.
4) Scarabaeus shape got its name after an exotic beetle.
5) Lune is a word of English origin.
6) Woman's figures can be called 'hourglass' and 'pear shaped'.
7) Dog bone shape is synonymous to rod shape.
8) Human's faces can be heart-shaped.

LEXICAL EXERCISES

I. Tell your groupmate what objects have the following shapes:
oval, hourglass shape, egg shape, V-shape, pear shape.

II. Find out words synonymous to:
origin, to take after, intricate, a few, to mean, ordinary.

III. Find out words antonymous to:
to differ, rare, similar, bottom, empty.

IV. Translate the following expressions and use them in your own situations:
metaphorical name, subject in question, to take into consideration, to resemble parents, descriptive term, to refer to, a word of Greek etymology, on Earth, honeymoon trip.

V. Word building. Fill in the gaps in the table below:

Nouns	Verbs	Adjectives	Adverbs
…	…	metaphorical	…
terminology	…	…	…
reference	…	…	…
…	to project	…	…
…	…	…	oppositely
…	…	…	specifically
…	…	approximate	…
sphere	…	…	…
resemblance	…	…	…
…	…	…	generally
…		exact	…

GRAMMAR EXERCISES

I. Identify the following verb forms:
are named, resembles, may refer to, joined, to denote, varied, rounded, became, applied to, including, resembling.

II. Make up negatives and questions:
1) Many shapes have metaphorical names.
2) These terms may variously refer to objects.
3) A bell-shaped curve has the shape of the vertical cross-section of a bell.
4) The shape naming may be quite elaborate.
5) "U-shape" resembles the letter U.
6) Mushroom shape became infamous as a result of the mushroom cloud.

III. Fill in the gaps using the Past Simple Tense:
1) Who … (to introduce) this term?
2) He … (to become) famous in 1978.

3) I don't know what this word … (to denote) 500 years ago.
4) In her childhood she … (not/to resemble) her parents.
5) Last lesson we … (to learn) new types of word-building.
6) She … (to name) her daughter after a famous actress.
7) I don't really remember when he … (to join) our company.
8) We … (not/to apply) these materials in our project.

DISCUSSION

Prepare a report about:
a) Shapes of Human Body.
b) Formation of English Words.
c) Shapes in Modern Art.
d) Shapes in Fashion.
e) Shapes in Nature.

ADDITIONAL TASKS

Guess your body shape (for girls only!):
http://www.womansmagazine.net/how-to-test-your-body-shape.html
http://en.wikipedia.org/wiki/Female_body_shape

LESSON 6
MATERIALS & STRUCTURES

Active vocabulary of the lesson:
clay – глина
sand – песок
wood – дерево
timber – древесина
rock – зд. камень
synthetic – синтетический
insulation – изоляция
carpentry – плотничество, плотничье дело
plumbing – сантехника, водопровод
lumber – (US) пиломатериалы
glass – стекло
petroleum – нефть
mud – грязь, земля
soil – почва
gravel – гравий
straw – солома
density – плотность
thatch – солома, тростник
plank – доска
board – доска
reinforced concrete – железобетон
bars – брусья
rod – прут, стержень
alloy – сплав
tin – олово
chrome – хром
bullet proof – пуленепробиваемый
film – пленка
cement – цемент

I. Read and translate the text and give the main idea.

Building material is any material which is used for a construction purpose. Many naturally occurring substances, such as clay, sand, wood and rocks, even twigs and leaves have been used to construct buildings. Apart from naturally occurring materials, many man-made products are in use, some more and some less synthetic. Building materials can be generally categorized into two sources, natural and synthetic. Natural building materials are those that are unprocessed or minimally processed by industry, such as lumber or glass. Synthetic materials are made in industrial settings after much human manipulations, such as plastics and petroleum based paints. Both have their uses.

Fabric

Two well known types include the conical tepee and the circular yurt. It has been revived as a major construction technique with the development of tensile architecture and synthetic fabrics. Modern buildings can be made of flexible material such as fabric membranes, and supported by a system of steel cables, rigid framework or internal.

Mud and clay

The amount of each material used leads to different styles of buildings. The deciding factor is usually connected with the quality of the soil being used. Larger amounts of clay usually mean using the cob/adobe style, while low clay soil is usually associated with sod building. The other main ingredients include more or less sand/gravel and straw/grasses.

Rock

There are many types of rock throughout the world all with differing attributes that make them better or worse for particular uses. Rock is a very dense material so it gives a lot of protection too, its main draw-back as a material is its weight and awkwardness. Its energy density is also considered a big draw-

back, as stone is hard to keep warm without using large amounts of heating resources.

Thatch

Thatch is one of the oldest of building materials known; grass is a good insulator and easily harvested. Many African tribes have lived in homes made completely of grasses year round. In Europe, thatch roofs on homes were once prevalent but the material fell out of favour as industrialization and improved transport increased the availability of other materials. Today, though, the practice is undergoing a revival. In the Netherlands, for instance, many of new builds too have thatched roofs with special ridge tiles on top.

Wood

Wood is a product of trees, and sometimes other fibrous plants, used for construction purposes when cut or pressed into lumber and timber, such as boards, planks and similar materials. Wood can be very flexible under loads, keeping strength while bending, and is incredibly strong when compressed vertically. There are many differing qualities to the different types of wood, even among same tree species. This means specific species are better for various uses than others. And growing conditions are important for deciding quality.

Concrete

Concrete is a composite building material made from the combination of aggregate (composite) and a binder such as cement. For a concrete construction of any size, as concrete has a rather low tensile strength, it is generally strengthened using steel rods or bars (known as rebars). This strengthened concrete is then referred to as reinforced concrete. Concrete has been the predominant building material in this modern age due to its longevity, formability, and ease of transport.

Metal

Metal is used as structural framework for larger buildings such as skyscrapers, or as an external surface covering. There are

many types of metals used for building. Steel is a metal alloy whose major component is iron, and is the usual choice for metal structural building materials. It is strong, flexible, and if refined well and/or treated lasts a long time. Corrosion is metal's prime enemy when it comes to longevity. The lower density and better corrosion resistance of aluminium alloys and tin sometimes overcome their greater cost. Brass was more common in the past, but is usually restricted to specific uses or specialty items today.

Other metals used include titanium, chrome, gold, silver. Titanium can be used for structural purposes, but it is much more expensive than steel. Chrome, gold, and silver are used as decoration, because these materials are expensive and lack structural qualities such as tensile strength or hardness.

Glass

Glassmaking is considered an art form as well as an industrial process or material. Clear windows have been used since the invention of glass to cover small openings in a building. They provided humans with the ability to both let light into rooms while at the same time keeping inclement weather outside. Glass is generally made from mixtures of sand and silicates, in a very hot fire stove called a kiln and is very brittle. Very often additives are added to the mixture when making to produce glass with shades of colours or various characteristics (such as bullet proof glass, or light emittance).

Plastic

The term plastics covers a range of synthetic or semi-synthetic organic condensation or polymerization products that can be moulded or extruded into objects or films or fibres. Their name is derived from the fact that in their semi-liquid state they are malleable, or have the property of plasticity. Plastics vary immensely in heat tolerance, hardness, and resiliency. Combined with this adaptability, the general uniformity of composition

and lightness of plastics ensures their use in almost all industrial applications today.

Cement composites

Cement bonded composites are made of hydrated cement paste that binds wood or alike particles or fibres to make pre-cast building components. Various fibrous materials including paper and fibreglass have been used as binders. Wood and natural fibres are composed of various soluble organic compounds like carbohydrates, glycosides and phenolics. These compounds are known to retard cement setting. Therefore, before using a wood in making cement boned composites, its compatibility with cement is assessed.

II. Answer the questions:

1) Which materials are considered natural/synthetic? Give examples.
2) Are fabrics used in modern architecture?
3) Which types of dwelling are built from clay?
4) What's the main disadvantage of rock?
5) What makes thatch a popular building material?
6) Which materials can be made out of wood?
7) Why does wooden architecture remain popular?
8) What factors influence wood quality?
9) What's concrete used for?
10) Why has concrete been wide spread for so long?
11) What's reinforced concrete?
12) What material is used for skyscrapers? Why?
13) Which metals and alloys popular in design do you know?
14) Which are the possible ingredients of glass?
15) What's the history of the term 'plastic'?

III. True or false:

1) Yurts are made from wood.
2) Soil isn't used for building.

3) Thatch is no longer used to build houses.
4) Strengthened concrete is called reinforced.
5) Titanium is as expensive as steel.
6) Glass cannot be bullet proof.

IV. Fill in the gaps:
1) I tend to buy clothes made from natural …, like cotton, wool, silk.
2) This is a high quality furniture, only I don't remember what … it's made from, maybe oak.
3) Most block of flats are built from … or brick.
4) Jane has a cow and two goats, so she has to prepare lots of … for the winter.
5) Pots are normally made from … .

LEXICAL EXERCISES

I. Say which materials are used to build:
a castle, a hut, a yurt, a skyscraper, a cottage, a tower, a shack, a block of flats, a palace.

II. Find out words synonymous to:
textile, timber, gasoline, mud, stone, thatch, hardness, kiln, hue.

III. Find out words antonymous to:
synthetic, rigid, better, advantage, weakness, internal.

IV. Translate the following expressions and use them in your own situations:
rigid framework, deciding factor, main ingredients, large amount, thatched roof, modern age, reinforced concrete, metal alloy, natural fibres, organic compound.

V. Word building. Fill in the gaps in the table below:

Nouns	Verbs	Adjectives	Adverbs
…	…	constructive	…
…	…	…	naturally
…	…	awkward	…
…	…	dense	…
heat	…	…	…
insulation	…	…	…
…	…	available	…
fibre	…	…	…
…	…	…	incredibly
additive	…	…	…
plasticity	…	…	…
binder	…	…	…
…	…	compatible	…

GRAMMAR EXERCISES

I. Identify the following verb forms:
occurring, are made, has been revived, can be made, used, leads, using, is considered, have lived, fell out of favour, improved, is undergoing, made from, has, was, can be used, to make, have been used, before using.

II. Make the following sentences negative:
1) The amount of each material used leads to different styles of buildings.
2) The other main ingredients include more or less sand/gravel and straw/grasses.
3) Titanium can be used for structural purposes, but it is much more expensive than steel.
4) They provided humans with the ability to both let light into rooms while at the same time keeping inclement weather outside.

5) Clear windows have been used since the invention of glass to cover small openings in a building.
6) Plastics vary immensely in heat tolerance, hardness and resiliency.
7) Concrete has been the predominant building material in this modern age due to its longevity, formability, and ease of transport.

III. Translate this story into English. Which words denoting building materials are used here?

Эту квартиру в центре Москвы мы с мужем купили в 1998 году. Квартира была небольшой, двухкомнатной и в жутком состоянии. Нам пришлось переделывать абсолютно всё. У меня не было никакого представления о том, каким будет дизайн. Я только хотела, чтобы и отделка, и мебель были светлых натуральных тонов, а весь интерьер построен на игре света. Дом из песка с элементами хай-тека, уют и металл, тепло и холод. Пол мы сделали из дуба. Потом выбрали краску для стен - кварцевую. Она состоит в основном из песка, и её, как правило, используют для оформления фасадов зданий. После мы купили кровать фирмы Ligne Roset. Поскольку долгое время другой мебели в квартире не было, она выполняла роль и обеденного стола, и рабочего - на ней стоял компьютер, а также роль лавочки, так как сидеть было больше негде. Собственно, после появления кровати у нас впервые возникла идея о декоре в японском стиле. Шторы на окнах мы сделали из ткани, напоминающей натуральный лён. Купили посуду с японским рисунком. На пол в коридор и ванную мы положили плетёные коврики из джута. Ремонт был сделан в рекордные сроки - всего за полтора месяца, очень уж хотелось поскорее въехать в новый дом. Здесь особенно красиво весной и летом в солнечный день - свет играет на стеклянных дверцах кухни, полупрозрачной двери ванной.

IV. Fill in the gaps using the Present Continuous Tense:
1) Jack … (to build) a new brick house now.
2) Wood … (to get) popular again.
3) Rock … (to lose) its popularity.
4) Manufacturers … (to produce) different types of glass nowadays.
5) What fabric … (you / to sew) this dress from?
6) How … (you / to get on) with your house? – I … (still / to buy) brick and other necessary materials.
7) I do love marble. Right now I … (to think) of making marble columns in the hall.
8) Have you ever lived in a mud hut? – Luckily not! We … (to live) in a three-storied brick mansion now.

DISCUSSION

In pairs, make up lists of:
a) Materials Used in Building.
b) Materials Used in Interior Decoration.
c) Materials Used in Industrial Design.
d) Materials Used in Fashion.

ADDITIIONAL TASKS

Look at the following pictures and say which materials were used for these buildings:
http://www.eurekaheritage.org/images/Carson%20Mansion%20pic%2004.JPG
http://www.comicbookmovie.com/images/users/uploads/11631/Batman%206%2015%20Mansion.jpg

LESSON 7
STYLES IN ARCHITECTURE AND DESIGN

Active vocabulary of the lesson:
architecture – архитектура
archaeological – археологический
Renaissance – Возрождение
ancient – старинный, древний
to revive – возродить
gothic – готический
features – черты
pointed arch – стрельчатая арка
vault – свод
flying buttress – аркбутан
cathedral – собор
abbey – аббатство
parish church – приходская церковь
castle – замок
palace – дворец
dwelling – жилище
civic – гражданский
movement – движение, направление
Baroque – барочный
picturesque – живописный
purity – чистота
artistic – художественный

I. What architectural styles do you know? Read the story and say which style you prefer above all.

ARCHITECTURAL STYLES

Classical architecture

Classical architecture is the set of building styles and techniques of Classical Greece, as used in ancient Greece, the Hel-

lenistic period, and the Roman empire. In architectural history, Classical architecture also includes later and modern styles derived from Greek sources, while archaeological usage is more strictly limited to the Classical period. Most of the styles originating in post-renaissance Europe can be described as classical architecture. This broad use of the term is employed by Sir John Summerson in The Classical Language of Architecture. The "elements" of classical architecture have been applied in radically different architectural contexts than those for which they were developed. The classical orders – Doric, Ionic, and Corinthian – have meaning in the stylistic history of 5th century BC Greece, shifting to the developments in 1st century AD Gaul, with the styles revived over and over again since then.

Gothic architecture

Originating in 12th-century France and lasting into the 16th century, Gothic architecture was known during the period as "the French Style" (Opus Francigenum), with the term Gothic first appearing during the latter part of the Renaissance as a stylistic insult. Its characteristic features include the pointed arch, the ribbed vault and the flying buttress. Gothic architecture is most familiar as the architecture of many of the great cathedrals, abbeys and parish churches of Europe. It is also the architecture of many castles, palaces, town halls, guild halls, universities, and to a less prominent extent, private dwellings. It is in the great churches and cathedrals and in a number of civic buildings that the Gothic style was expressed most powerfully, its characteristics lending themselves to appeal to the emotions. A series of Gothic revivals began in mid-18th century England, spread through 19th-century Europe and continued, largely for ecclesiastical and university structures, into the 20th century.

Neoclassical architecture

Neoclassical architecture was an architectural style produced by the neoclassical movement that began in the mid-18th century, both as a reaction against the Rococo style of anti-tectonic

naturalistic ornament, and an outgrowth of some classicizing features of Late Baroque. In its purest form it is a style principally derived from the architecture of Classical Greece and the architecture of Italian Andrea Palladio. Pulteney Bridge, Bath, England, by Robert Adam Siegfried Giedion, whose first book (1922) had the suggestive title Late Baroque and Romantic Classicism, asserted later "The Louis XVI style formed in shape and structure the end of late baroque tendencies, with classicism serving as its framework." In the sense that neoclassicism in architecture is evocative and picturesque, a recreation of a distant, lost world, it is, as Giedion suggests, framed within the Romantic sensibility. Intellectually Neoclassicism was symptomatic of a desire to return to the perceived "purity" of the arts of Rome, the more vague perception ("ideal") of Ancient Greek arts and, to a lesser extent, sixteenth-century Renaissance Classicism, the source for academic Late Baroque.

Art Nouveau

Art Nouveau is an international movement and style of art, architecture and applied art—especially the decorative arts—that peaked in popularity at the turn of the 20th century (1890–1905). The name 'Art nouveau' is French for 'new art', it is also known as Jugendstil, German for 'youth style', named after the magazine Jugend, which promoted it, and in Italy, Stile Liberty from the department store in London, Liberty & Co., which popularized the style. A reaction to academic art of the 19th century, it is characterized by organic, especially floral and other plant-inspired motifs, as well as highly-stylized, flowing curvilinear forms. Art Nouveau is an approach to design according to which artists should work on everything from architecture to furniture, making art part of everyday life.

Art Deco

Art Deco was a popular international art design movement from 1925 until the 1940s, affecting the decorative arts such as architecture, interior design, and industrial design, as well as

the visual arts such as fashion, painting, the graphic arts, and film. At the time, this style was seen as elegant, glamorous, functional, and modern. The movement was a mix of many different styles and movements of the early 20th century, including Neoclassical, Constructivism, Cubism, Modernism, Art Nouveau, and Futurism. Its popularity peaked in Europe during the Roaring Twenties and continued strongly in the United States through the 1930s. Although many design movements have political or philosophical roots or intentions, Art Deco was purely decorative. Art Deco experienced a decline in popularity during the late 30s and early 40s, and soon fell out of public favour. It experienced a resurgence with the popularization of graphic design in the 1980s. Art Deco had a profound influence on many later artistic movements, such as Memphis and Pop art. The Empire State Building and The Chrysler Building, both in New York City, are two of the largest and best-known examples of the style.

II. Answer the questions:

1) What's the origin of Classicism?
2) Which architecture elements are considered classical?
3) When did Gothic architecture first appear?
4) Why was Gothic style mainly applied to build ecclesiastical buildings?
5) What's the difference between Classical and Neoclassical architecture?
6) What does the term Art Nouveau mean?
7) What's the main trait of Art Nouveau architecture?
8) What made Art Deco an extremely popular style of the 20th century art?

III. True or false:

1) Classical architecture does not include styles derived from Greece.

2) There are three classical orders.
3) Gothic architecture originated in Germany.
4) Art Nouveau reached its zenith in the 19th century.
5) Art Deco was far from being decorative.

IV. Fill in the gaps:
1) I do love this view! It's so … .
2) My ever favourite … in painting is Classicism.
3) There are lots of magnificent Gothic … in Germany.
4) The Middle Ages were followed by … .
5) Most people admire … art of Greece.

LEXICAL EXERCISES

I. Make up expressions with the given new words:
architecture, Baroque, Renaissance, dwelling, movement, features, purity, ancient, department store, popularity, to revive, picturesque.

II. Find out words synonymous to:
ancient, to derive, abuse, dwelling, characteristics, shopping mall, up-to-date, deep, direction, clean, to come back, far-away.

III. Find out words antonymous to:
earlier, unknown, civic, clear, decline, shallow, close.

IV. Translate the following expressions and use them in your own situations:
applied art, visual arts, decorative arts, floral motifs, characteristic features, to fall out of public favour, profound influence, to a lesser extent.

V. Word building. Fill in the gaps in the table below:

Nouns	Verbs	Adjectives	Adverbs
…	to revive	…	…
…	…	picturesque	…
…	…	pure	…
…	to evoke	…	…
…	to furnish	…	…
popularity	…	…	…
…	…	decorative	…
…	…	…	strongly
…	…	philosophical	…
…	…	functional	…
…	…	archaeological	…
…	to build	…	…
…	…	…	powerfully

GRAMMAR EXERCISES

I. Identify the following verb forms:
includes, include, is limited to, can be described as, is employed, shifting, was known, lending themselves, produced by, peaked in popularity, making, experienced, had a profound influence.

II. Make the following sentences negative:
1) Neoclassical architecture was an architectural style produced by the neoclassical movement that began in the mid-18th century.
2) Its popularity peaked in Europe during the Roaring Twenties and continued strongly in the United States through the 1930s.
3) This broad use of the term is employed by Sir John Summerson in The Classical Language of Architecture.

4) The classical orders have meaning in the stylistic history of 5th century BC Greece, shifting to the developments in 1st century AD Gaul, with the styles revived over and over again since then.

III. Make up questions:
1) did / Nouveau / popular / when / Art / become / ?
2) when / Gothic / appear / where / did / and / architecture / ?
3) classical / orders / how / there / in / are / architecture / many / ?
4) Art / movements / which / affect / did / Deco / artistic / ?
5) in / Art / what / mean / French / does / Nouveau / ?

IV. Fill in the gaps using the Present Perfect Tense:
1) This university … (to build) recently.
2) … you ever … (to see) magnificent palaces of St. Petersburg?
3) We … (not / to study) Gothic architecture yet.
4) Baroque … always … (to be) her favourite style.
5) … you … (to finish) your project yet?

DISCUSSION

I. Work in pairs and discuss the following proverbs:
A man's home is his castle.
East or West, home is best.
Home is where the heart is.
People who live in glass houses should not throw stones.
Charity begins at home.
A rolling stone gathers no moss.
As you make your bed, so you must lie on it.
Do not burn your house to get rid of the mice.
Home is a refuge.

II. Read the dialogue and act it out.

- Could you tell me whether people in Britain prefer to rent houses or buy them?
- On the whole they prefer to buy houses, for several reasons. It is now, after many years, really a British way of life. People think they should buy their house rather than rent their house. They think renting is a waste of money. You're throwing money away. And also, buying a property is a very good investment for your future.
- And what sort of houses do single people tend to choose?
- Single people are usually younger people, and they normally don't have enough money. So they tend to choose smaller properties such as flats, one-, two-bedroom apartments, studio apartments, that sort of thing.
- And young couples?
- Young couples tend to have jobs, so they earn money and therefore can afford bigger properties such as a two-bedroom apartment, small cottages, small houses.
- And what about old people?
- Older people usually buy smaller houses, like bungalows, which are easy to run.
- So which houses are more expensive: old or new houses?
- The older properties tend to be more expensive. Old properties are rare nowadays, and there are far more modern houses than older properties. Also old houses tend to be more picturesque. They've got big fireplaces, and appeal to a lot of people.
- And when people are looking for houses, what specific things do they look for?
- One of the major problems when looking for a house is what somebody can afford. People want a big mansion with lots of land, swimming pool, etc., but can't actually afford it. However they may have two children and they will therefore need three bedrooms. If it's a question of having young children, for example, they will need a garden of some sort for them to play in.

When the children are much older and have passed their driving test and have got cars themselves they will therefore need more parking and a garage. If somebody has, for example, a major hobby as a gardener, they will need a garden shed so they can put all their tools in.
- And finally, if you could choose any house to live in, which would you choose?
- I would choose a house with a long drive. Probably with river frontage and its own mooring for a yacht, a Jacuzzi, sauna, tennis court, indoor swimming-pool.
- So in fact the house isn't very important at all.
- Not at all.

ADDITIONAL TASKS

Look at the following pictures and try to guess their architectural style:
http://basik.ru/images/beautiful_castles/short.jpg
http://dreamvoyage.ru/photos/luara_3.jpg
http://www.teachenglishinasia.net/files/u1/himeji-castle-japan.jpg
http://img.sunhome.ru/UsersGallery/wallpapers/57/15132837.jpg
http://akademia.clan.su/_nw/2/43148.jpg

LESSON 8
COMPUTER-AIDED DESIGN

I. Match the following words with their meanings in the right column:

wire	по почте
gadgets/appliances	база данных
laptop	скачивать
keyboard	напряжение
screen	провод
software	по интернету
to upload	запускать (программу)
voltage	ноутбук
to launch	персональный компьютер
PC	коврик для мыши
power	програмное обеспечение
mouse pad	инструменты
via mail	экран
digital	электроприборы
database	цифровой
tools	клавиатура
to download	загружать
on the net	мощность

II. Read and translate the text and give the main idea.

Computer-aided design (CAD) is the use of computer technology for the design of objects, real or virtual. CAD often involves more than just shapes. As in the manual drafting of technical and engineering drawings, the output of CAD often must convey also symbolic information such as materials, processes, dimensions, and tolerances, according to application-specific conventions. CAD may be used to design curves and figures in two-dimensional ("2D") space; or curves, surfaces,

and solids in three-dimensional ("3D") objects. CAD is an important industrial art extensively used in many applications, including automotive, shipbuilding, and aerospace industries, industrial and architectural design, prosthetics, and many more. CAD is also widely used to produce computer animation for special effects in movies, advertising and technical manuals. The modern ubiquity and power of computers means that even perfume bottles and shampoo dispensers are designed using techniques unheard of by engineers of the 1960s. Because of its enormous economic importance, CAD has been a major driving force for research in computational geometry, computer graphics (both hardware and software), and discrete differential geometry. The design of geometric models for object shapes, in particular, is often called computer-aided geometric design (CAGD).

Current Computer-Aided Design software packages range from 2D vector-based drafting systems to 3D solid and surface modellers. Modern CAD packages can also frequently allow rotations in three dimensions, allowing viewing of a designed object from any desired angle, even from the inside looking out. Some CAD software is capable of dynamic mathematic modelling, in which case it may be marketed as CADD — computer-aided design and drafting.

CAD is used in the design of tools and machinery and in the drafting and design of all types of buildings, from small residential types (houses) to the largest commercial and industrial structures (hospitals and factories).

CAD is mainly used for detailed engineering of 3D models and/or 2D drawings of physical components, but it is also used throughout the engineering process from conceptual design and layout of products, through strength and dynamic analysis of assemblies to definition of manufacturing methods of components. It can also be used to design objects.

CAD has become an especially important technology within the scope of computer-aided technologies, with benefits such as lower product development costs and a greatly shortened design cycle. CAD enables designers to lay out and develop work on screen, print it out and save it for future editing, saving time on their drawings.

Occupations that use CAD include designers, architects, and developers.

Computer-Aided Design is one of the many tools used by engineers and designers and is used in many ways depending on the profession of the user and the type of software in question. There are several different types of CAD. Each of these different types of CAD systems require the operator to think differently about how he or she will use them and he or she must design their virtual components in a different manner for each.

There are many producers of the lower-end 2D systems, including a number of free and open source programs. These provide an approach to the drawing process without all the fuss over scale and placement on the drawing sheet that accompanied hand drafting, since these can be adjusted as required during the creation of the final draft.

3D wire frame is basically an extension of 2D drafting. Each line has to be manually inserted into the drawing. The final product has no mass properties associated with it and cannot have features directly added to it, such as holes. The operator approaches these in a similar fashion to the 2D systems, although many 3D systems allow using the wire frame model to make the final engineering drawing views.

3D "dumb" solids (programs incorporating this technology include AutoCAD and Cadkey 19) are created in a way analogous to manipulations of real world objects. Basic three-dimensional geometric forms (prisms, cylinders, spheres, and so on) have solid volumes added or subtracted from them, as if

assembling or cutting real-world objects. Two-dimensional projected views can easily be generated from the models. Basic 3D solids don't usually include tools to easily allow motion of components, set limits to their motion, or identify interference between components.

3D parametric solid modelling requires the operator to use what is referred to as "design intent". The objects and features created are adjustable. Any future modifications will be simple, difficult, or nearly impossible, depending on how the original part was created. One must think of this as being a "perfect world" representation of the component. If a feature was intended to be located from the centre of the part, the operator needs to locate it from the centre of the model, not, perhaps, from a more convenient edge or an arbitrary point, as he could when using "dumb" solids. Parametric solids require the operator to consider the consequences of his actions carefully.

III. Answer the questions:

1) What is CAD?
2) Which human activities apply CAD?
3) What types of software packages exist in modern computer-aided design?
4) What makes CAD an extremely important technology nowadays?
5) What sort of people use CAD during their work?
6) What's the difference between 3D wire frame and 3D 'dumb' solids?

IV. True or false:

1) All types of designers use CAD.
2) CAD makes product development more expensive.
3) CAD may be used both in two-dimensional and three-dimensional spaces.

4) CADD means computer-aided design and drawing.
5) CAD can only be applied in various spheres of design.

V. Fill in the gaps:
1) The scientists have been doing their … for two years already.
2) Solids are designed in … space.
3) You've got to insert these elements … into the drawing.
4) What types of … are used by modern designers?
5) CAD helps to shorten design …

LEXICAL EXERCISES

I. Make up expressions with the given new words:
virtual, manual, engineering, dimension, surface, solid, curves, power, computational, hardware, software, machinery, to edit, to insert, motion, modelling, drafting.

II. Word building. Fill in the gaps in the table below:

Nouns	Verbs	Adjectives	Adverbs
engineer	…	…	…
…	…	two-dimensional	…
…	to draw	…	…
rotation	…	…	…
user	…	…	…
…	…	…	manually
wire	…	…	…
…	…	parametric	…
geometry	…	…	…
symbol	…	…	…
…	to operate	…	…
occupation	…	…	…
…	…	…	basically

III. Find out words synonymous to:
tool, advantage, widely, to draw, huge, price, profession, comfortable.

IV. Find out words antonymous to:
synthesis, to subtract, static, real, possible, carelessly.

V. Translate the following expressions and use them in your own situations:
two-dimensional space, arbitrary point, in particular, computational geometry, virtual reality, residential buildings, motion picture.

GRAMMAR EXERCISES

I. Identify the following verb forms:
including, unheard of, has been a driving force, allowing viewing of a desired object, may be marketed, is used, has become an especially important technology, enables, to lay out, used by designers, has to be manually inserted, don't include tools, to easily allow, will be simple, was intended to be located, needs to locate it, is sold by DTC, are able to be generated, are ever increasing.

II. Make the following sentences negative:
1) CAD often involves more than just shapes.
2) CAD has been a major driving force for research in computational geometry, computer graphics (both hardware and software), and discrete differential geometry.
3) There are several different types of CAD.
4) Parametric solids require the operator to consider the consequences of his actions carefully.

5) One must think of this as being a "perfect world" representation of the component.

III. Make up questions:

1) do / utilize / programs / what / you / ?
2) objects / using / be / can / what / CAD / designed / ?
3) have / wireless / keyboard / do / a / you / ?
4) much / Internet / you / spend / time / in / do / the / how / ?
5) would / like / what / gadgets / you / to / brand-new / buy / ?

IV. Fill in the gaps using the Present Perfect Continuous Tense:

1) John … (to work) as a programmer for two years now.
2) You … (to sit) in front of the monitor all day! You'd better help me about the house!
3) How long … you … (to fix) your computer? – For a month already.
4) You are so pale! What … you … (to do)? – I … (to type) all day.
5) We … (to study) informatics since we were first-year students.

DISCUSSION

I. Work in pairs and discuss the following topics:

a) Gadgets in Our Life.
b) My Favourite Appliances.
c) Computer Skills and Design Process.

ADDITIONAL TASKS

Read the following essay and write your own one on the problem:

http://www.megaessays.com/viewpaper/103425.html

LESSON 9
HOW TO BECOME A DESIGNER

Active vocabulary of the lesson:
interior decorator – дизайнер интерьера
taste – вкус
in style – в моде
professional – специалист
to deal with – иметь дело/работать с чем-либо
client – клиент
to hire – нанимать
portfolio – портфолио
retailer – розничный торговец
supplier – поставщик
discount – скидка
to purchase – покупать
real estate agent – агент по продаже недвижимости
opportunity – возможность

I. Read and translate the text and give the main idea.

TEN STEPS TO BECOMING AN INTERIOR DECORATOR

1. Train Your Eye

If you're interested in becoming an interior decorator, you probably already have an idea about what good design looks like, or at least what fits your style and taste. However, you can continue to develop this by staying abreast of the trends popular in the industry and watching them change. You'll be able to get a feel for what's out there and what's in style. You can do this by flipping through design magazines or even by attending open houses in wealthy neighbourhoods, art galleries, offices of professionals, etc. Go see what's there and what people like.

2. Get an Education

Even though it's unnecessary for interior decorators to have a formal education, they are expected to know the specifics of the business. This includes space planning, lighting, furniture and decorating styles, use of colour, textures and applications of different types of fabrics, floorings, wall coverings, paint, window treatments, and use and placement of accessories (such as pillows, vases, and art). You can learn all this through books and websites, but the fastest, easiest, and most comprehensive way to ensure you learn the essentials is by taking an interior design course.

3. Practice at Home

It is important to have some decorating experience before experimenting with the homes of others. Most interior decorators will work with their own home in order to gain some experience and develop their style. Even if you only have one room in your house to work with, you should use it to play with. A coat of paint and some new furniture positioning can dramatically change any space. This is simple and easy to do, and recommended before suggesting new ideas to your clients.

4. Volunteer with Friends and Family

Once you've tried a few things out on your own, you may want to consider offering to decorate the homes or offices of your friends and family. This will be a great opportunity for you to not only practice your decorating techniques, but also to expose yourself to working for other people and with their spaces. You have to remember that the most important thing, when it comes to decorating, is to make your client happy. Your friends and family will have input on your designs and you will need to modify them to their personal tastes, which will be excellent practice for dealing with clients who might not be as forgiving as your friends and family.

5. Prepare a Portfolio

Every artist needs a portfolio to showcase their work, and an interior decorator is no different. The purpose of a portfolio is to convince a client or a firm to hire you, so, along with your designs, you should include any other documents (such as letters of recommendation and 'design boards', which are poster boards containing pictures and samples of materials that you use, like fabrics, flooring, wallpaper, etc.) that will convince your future employer (client or firm) of your talents. However, the majority of your portfolio should consist of pictures of work that you have completed. On every job you should be sure to take 'before' and 'after' photos of the rooms that you design. Then, from this group, you should choose 15-20 pictures to present in your portfolio.

6. Get a Job

Even if your ultimate goal is to have a business of your own, starting with a job in the industry can be crucial to your success. It will teach you about the business, not to mention introduce you to clients who, if they like your designs, may stay with you after you move on. Decorating jobs are available in businesses like home builders, furniture and house ware manufacturers, hotel and restaurant chains, retailers (furniture stores, home improvements stores, antique dealers, etc.), and interior design and decorating firms.

7. Start Your Own Business

If you are interested in starting your own business there are a number of things to consider. Initially you will need to decide on business matters such as a company name and whether or not you want to incorporate. You may also begin your solo career by working from home. It will save on the cost of office space, and, since you will be going to clients (they won't be coming to you), it should not interfere with your professionalism.

8. Establish Relationships with Suppliers

As an interior designer, you will get up to a 50% discount on the materials you use when you purchase them directly from suppliers. Suppliers are companies that provide the products and services that you need to decorate and include manufacturers of furniture, wall coverings, flooring, fabrics, etc. as well as contractors who do painting, carpentry, and installation. You need to know the right people and have good relationships with them because their materials and services help to create your designs and will be utilized in the homes of your clients.

9. Get Clients

In order to get new clients you need to market yourself and your designs. The best way to do so is to network with professionals who can refer business to you. Word of mouth is one of the most effective selling strategies, and if you can get real estate agents, architects, antique dealers, art dealers, home renovators, and similar authorities on homes to tout your designs, you will not only gain a good reputation, but clients as well. Other effective marketing strategies include creating your own website with photos of your work and getting publicity in the 'homes' section of your local newspaper. Keep in mind that you have a wide range of potential clients: home builders, new home buyers, wealthy homeowners, professional couples, advertising agencies, art galleries, bed and breakfasts, boutique stores, corporate head offices, hotels, law firms, restaurants, spas, and many other types of businesses.

10. Grow as a Professional

What is popular in the interior design industry is constantly changing. Trends ebb and flow with the tastes of professional designers and clients. It is important to stay on top of the current industry events and fashions because your clients will. It is easy to do this by attending trade shows, reading design magazines, and joining professional organizations. Along with varying styles, techniques and technologies are constantly shifting

as well, which is another reason to be aware of industry modifications. Your final step in growing your career, if you choose to do so, is to gain interior design certification, and thereby create new possibilities and opportunities when it comes to designing a home.

II. Answer the questions:

1) How can a future designer acquire style and taste?
2) Does an interior decorator need proper education nowadays?
3) Why is it considered best for a beginner to choose first clients among friends and family?
4) What does a portfolio look like?
5) How can a designer start his or her own business?
6) How can you attract new clients?
7) What other recommendations to become a successful designer can you give?

III. True or false:

1) A designer doesn't need a formal education.
2) You don't need to work with your home because it's a waste time.
3) Only artists and models really need a portfolio to promote themselves.
4) You'd better have a job experience in design area even if you're planning to start your own business.
5) You've got to grow professionally if you want to be a well-to-do designer.

IV. Read the text and render its ideas in English:

Кое-что современное вызывает у людей старшего поколения настоящий ужас. К примеру, стили хай-тек, конструктивизм, минимализм, функционализм, то есть все то, что предполагает наличие странных вещей и большого количества свободного пространства, чаще всего выбирают

люди молодые, как мы говорим – современные. Отсюда и вытекает понятие «современный дизайн», и анализировать его без отрыва от современных людей просто невозможно, да и глупо.

Сегодня человек стал гораздо более привередливым, нежели был когда-то. Он привык много и плодотворно работать, а потому стремится качественно отдыхать. Современный молодой человек – специалист ли, менеджер ли – как правило, хорошо начитан и осведомлен, что постоянные стрессы без умения расслабляться приведут к ранней потере здоровья и огромным проблемам. Так что интерьер квартир, в которых он живет, и интерьер ресторанов, в которых он отдыхает, начинают играть очень важную роль. Сегодня современный дизайн интерьера квартир обязательно должен быть гораздо более широким, нежели понятие «мой дом – моя крепость».

Современный дизайн обязан отвечать массе стандартов, которые на первый взгляд кажутся несовместимыми, особенно если учесть то перечисление современных стилей в дизайне, которое было выше. Вы считаете, что удобной и комфортной может быть только лишь мягкая классика? В таком случае, вы просто ошибочно полагаете, что хай-тек – это нагромождение металлических трубок, и уверены, что стеклянные стулья или железные скамейки обязательно будут жесткими и острыми по краям. Современный дизайн, как и любой другой, обязан быть удобным, ведь создается он для человека, а жить в дисгармонии с собой готовы, разве что, мазохисты. Следовательно, студии дизайна интерьера должны были решить, каким способом сделать такие материалы, как металл и стекло, удобными для человека, комфортными для его жизни и применимыми в интерьере квартиры.

LEXICAL EXERCISES

I. Make up expressions with the given new words:
to supply, to decorate, to market, to deal with, to purchase, to hire, to employ, to gain, to be able, to ensure.

II. Find out words synonymous to:
to purchase, opportunity, to offer, excellent, crucial, goal, to persuade, sample, store, to tout, to gain.

III. Find out words antonymous to:
majority, failure, to save, the best, similar, wealthy.

IV. Translate the following expressions and use them in your own situations:
current events, ebb and flow, to learn the essentials, restaurant chain, retail and wholesale, solo career, the right people, real estate agent.

V. Word building. Fill in the gaps in the table below:

Nouns	Verbs	Adjectives	Adverbs
education	…	…	…
…	to decorate	…	…
experience	…	…	…
…	to supply	…	…
…	…	professional	…
purchaser	…	…	…
…	to market	…	…
…	…	opportune	…
…	…	…	directly
…	…	…	ultimately
…	to recommend	…	…
…	…	unnecessary	…

GRAMMAR EXERCISES

I. Identify the following verb forms:
you're interested, interested in becoming, can continue, you'll be able, go see, includes, by taking an interior design course, will work, once you've tried, you may want to consider, you should be sure, by working from home, in order to get, should consist.

II. Make the following sentences negative:
1) You will be able to get a feel for what's out there and what's in style.
2) Every artist needs a portfolio to showcase their work, and an interior decorator is no different.
3) You have to remember that the most important thing, when it comes to decorating, is to make your client happy.
4) You can do this by flipping through design magazines or even by attending open houses in wealthy neighbourhoods, art galleries, and offices of professionals.
5) You need to know the right people and have good relationships with them because their materials and services help to create your designs and will be utilized in the homes of your clients.

III. Make up WH-questions:
1) You can learn all this through books and websites.
2) You may also begin your solo career by working from home.
3) You should choose 15-20 pictures to present in your portfolio.
4) Suppliers provide the products and services that you need to decorate.
5) They are expected to know the specifics of the business.
6) You will get up to a 50% discount on the materials you use when you purchase them directly from suppliers.

7) In order to get new clients you need to market yourself and your designs.
8) The majority of your portfolio should consist of pictures of work that you have completed.

IV. Fill in the gaps using modal verbs (should, may, to be to, must, need, shall):
1) Professional designers … be aware of the latest trends.
2) Designers … argue with customers, and definitely they … be rude with them.
3) Mary … to meet with her client at 6, but unfortunately she was late.
4) … the walls be painted? – This would be great!
5) He … be a good designer, but I'm not sure.
6) The ceiling … to be whitewashed, and the walls … be wall-papered.
7) You … repair my door. That's an order!
8) … you … any tips on interior decoration? – Thanks, but I … do without your advice.

DISCUSSION

I. Prepare reports on the following topics:
a) Famous Design Schools in Russia and Abroad.
b) How to Become an Industrial/Graphic Designer.
c) Tips From Famous Designers.

ADDITIONAL TASKS

Read the tips that can help you make your future career:
http://www.cvtips.com/career-choice/how-to-build-your-career.html
http://careerplanning.about.com/od/careerchoicechan/tp/Career-Choice.htm

LESSON 10
FAMOUS DESIGNERS

Active vocabulary of the lesson:
can – консервная банка
road sign – дорожный знак
advertisement – реклама
trolley – тележка
spacecraft – космический корабль
stamp – марка
to make one's fortune – разбогатеть
eye-appeal – привлекательность
attractive – привлекательный
phoney – фальшивый, поддельный
garbage – мусор
to pollute – загрязнять

I. Read and translate the text and give the main idea.

RAYMOND LOEWY

You've probably never heard of Raymond Lowey, but if you drive a car, buy a can of soup, smoke a cigarette, follow picture-only road signs or look at advertisements, then Loewy has influenced you. What we expect from the outside of a car, the inside of a plane or ship, the colour of a trademark or the general style and feel of most things in shops can be traced back to the ideas of this Frenchman, who was born in 1893.

Loewy designed the classic Coca-Cola bottle, the supermarket trolley, the Shell and BP symbols and the inside of the Apollo spacecraft. He has designed everything from the Kennedy memorial stamp to the interior of Concorde. When he arrived in New York to make his fortune in 1919 he had a business card with this slogan: "Between two products equal in

prices, function and quality, the better looking will outsell the other."

One of his early designs was a refrigerator which looked so attractive yet functional that eye-appeal became its prime selling point – a factor which has never left the domestic product field. His 1920s' drawings of cars predicted the shapes of the 1980s, and when he sold a collection of his design studies in 1981 he claimed that they were the most remarkable collection of a single person's work since Leonardo da Vinci.

VICTOR PAPANEK

Victor Papanek is a designer and author of *Design For The Real World*. He believes that ideas are cheap and plentiful, and he gives away many of his designs to UNESCO. This is an extract from his book:

"There are professions more harmful than industrial design, but only a very few of them. And possibly only one profession is phonier. Advertising design, in persuading people to buy things they don't need, with money they don't have, in order to impress others who don't care, is probably the phoniest field in existence today. Industrial design, by concocting the tawdry idiocies hawked by advertisers, comes a close second. Never before in history have grown men sat down and seriously designed electric hairbrushes, rhinestone-covered file boxes, and mink carpeting for bathrooms, and then drawn up elaborate plans to make and sell these gadgets to millions of people. Before (in the 'good old days'), if a person liked killing people, he had to become a general, purchase a coal-mine, or else study nuclear physics. Today, industrial design has put murder on a mass-production basis. By designing criminally unsafe automobiles that kill or maim nearly one million people around the world each year, by creating whole new species of permanent garbage to clutter up the landscape, and by choosing materials and processes that pollute the air we breathe, designers have

become a dangerous breed. And the skills needed in these activities are taught carefully to young people. USE: 'Does it work?' A vitamin bottle should dispense pills singly. An ink bottle should not tip over."

II. Answer the questions:

1) Why can we call Raymond Loewy a prolific designer?
2) What country does he come from?
3) When did he arrive in New York?
4) What remarkable artists and architects did he compare himself to?
5) Have you ever heard of Raymond Loewy? What else do you know about this fantastic designer?
6) What book on design was written by Victor Papanek?
7) Look through the extract from his book once again and say if you agree to these ideas or not. Why?
8) Tell your partner about a famous industrial designer, his biography and achievements.

III. True or false:

1) Raymond Loewy was a famous landscape designer.
2) He was born in Germany.
3) Loewy proclaimed the importance of eye-appeal.
4) He also collected paintings of famous artists.
5) Victor Papanek considered designers harmless people.
6) He was a designer and had nothing to do with literature.

IV. Fill in the gaps:

1) Ann is an extremely … woman. She is a real … .
2) Apollo … was built in the USA.
3) Mike moved to LA to become an actor and make his … .
4) Have you ever collected … ?
5) There's so much … in the streets. Cans, packages, bottles are everywhere.

6) There are also lots of ecological problems. Factories … air, water, soil.

LEXICAL EXERCISES

I. Put the following words into several groups according to their meaning ("Appliances", "Consumer goods" etc.)
car, road sign, plane, ship, trademark, advertisement, trolley, symbol, spacecraft, stamp, interior, slogan, price, quality, refrigerator, eye-appeal, shape, drawing, electric hairbrush, file box, carpeting, gadget, coal-mine, garbage, package, alarm-clock.

II. Word building. Fill in the gaps in the table below:

Nouns	Verbs	Adjectives	Adverbs
…	…	…	fortunately
prediction	…	…	…
…	…	memorial	…
…	to claim	…	…
…	…	dangerous	…
…	…	permanent	…
…	…	…	seriously
harm	…	…	…
…	to exist	…	…
...	...	domestic	...
...	to persuade	...	...
pollution	...	...	...
...	...	electric	...
...	...	...	carefully

III. Find out words synonymous to:
to affect, interior, to become rich, good-looking, main, numerous, passage, appliance, to buy.

IV. Find out words antonymous to:
to sell, the outside, ugly, expensive, to dissuade, simple, temporary.

GRAMMAR EXERCISES

I. Identify the following verb forms:
have never heard, drive, buy, has influenced, can be traced back, was born, to make his fortune, had, will outsell, was, became, has never left, don't need, by concocting, had to become, by designing, should dispense.

II. Make the following sentences negative:
1) Loewy designed the classic Coca-Cola bottle.
2) He believes that ideas are cheap and plentiful.
3) One of his early designs was a refrigerator.
4) He has designed everything from the Kennedy memorial stamp to the interior of Concorde.
5) He had to become a general.
6) He claimed that they were the most remarkable collection of a single person's work since Leonardo da Vinci.
7) Eye-appeal became its prime selling point.
8) He had a business card with this slogan: "Between two products equal in prices, function and quality, the better looking will outsell the other."

III. Make up questions:
1) Loewy designed the supermarket trolley.
2) He gives away many of his designs to UNESCO.
3) He sold a collection of his design studies in 1981.
4) His 1920s' drawings of cars predicted the shapes of the 1980s.
5) You've probably never heard of Raymond Lowey.

IV. Fill in the gaps using the Passive Voice and the Past Simple Tense:

1) When … this designer … (to bear)?
2) These two gadgets … (to invent) five years ago.
3) Lots of appliances … (to design) by Leonardo da Vinci.
4) Where … the first car … (to build)?
5) When … this book … (to translate)?
6) I don't think these items … (to make) ten years ago.
7) Why … you … (not / to invite) to the opening of the new exhibition?
8) What … this gadget … (to make) from?

DISCUSSION

I. Work in pairs and discuss the following topics:

a) My Favourite Designer.
b) Famous Designers of the Present Day.
c) The Most Controversial Designer.

II. Prepare a report about a designer. Tell about his life, education, achievements, ideas.

ADDITIONAL TASKS

Do you want to become famous? If so, read this article:
http://www.wikihow.com/Become-Famous

PART TWO
LESSON 1
INDUSTRIAL DESIGN

Active vocabulary of the lesson:
industrial design – промышленный дизайн
aesthetics – эстетика
engineering – машиностроение
machine – машина
circuit – схема (электронная)
texture – текстура
psychology – психология

I. Read and translate the text and give the main idea.

Industrial design is an applied art, whereby the aesthetics and usability of products may be improved for marketability and production. The role of an industrial designer is to create and execute design solutions towards problems of engineering, usability, marketing, brand development and sales.

Industrial designers are a cross between a mechanical engineer and an artist. They study both function and form, and the connection between product and the user. They do not design the gears or motors that make machines move, or the circuits that control the movement. And usually, they partner with engineers and marketers, to identify and fulfil needs, wants and expectations.

Industrial design is the professional service of creating and developing concepts and specifications that optimize the function, value and appearance of products and systems for the mutual benefit of both user and manufacturer.

Although the process of design may be considered ‘creative’, many analytical processes also take place. In fact, many industrial designers often use various design methodologies in their creative process. Some of the processes that are

commonly used are user research, sketching, comparative product research, model making, prototyping and testing. These processes can be chronological, or as best defined by the designers and other team members. Industrial designers often utilize 3D software, computer-aided industrial design and CAD programs to move from concept to production. Product characteristics specified by the industrial designer may include the overall form of the object, the location of details with respect to one another, colours, texture, sounds, and aspects concerning the use of the product ergonomics. Additionally the industrial designer may specify aspects concerning the production process, choice of materials and the way the product is presented to the consumer at the point of sale. The use of industrial designers in a product development process may lead to added values by improved usability, lowered production costs and more appealing products. However, some classic industrial designs are considered as much works of art as works of engineering: the iPod, Coke bottle, and VW Beetle are frequently-cited examples.

Industrial design has no focus on technical concepts, products and processes. In addition to considering aesthetics, usability and ergonomics, it can also encompass the engineering of objects, usefulness as well as usability, market placement, and other concerns as seduction, psychology and the affectionate attachment of the user to the object. These values and accompanying aspects on which industrial design is based can vary, both between different schools of thought and among practicing designers.

Product design and industrial design can overlap into the fields of user interface design, information design and interaction design. Various schools of industrial design and product design may specialize in one of these aspects, ranging from pure art colleges to mixed programs of engineering and design, to related disciplines like exhibit design and interior design.

II. Answer the questions:

1) What's the main role of industrial designers?
2) Why can industrial design be considered both engineering and art?
3) What sort of problems does industrial design solve?
4) Which analytical processes take place in design?
5) Why is it vital for a designer to have computer skills?
6) What role do industrial designers play in a product development process? What features of a product do they take into consideration?

III. True or false:

1) Industrial design has nothing in common with art.
2) Industrial designers study only function and form.
3) Industrial designers considerably improve a product development process.
4) Industrial design's main concern is technical aspect of the product.
5) Industrial design, like any other type of design, is a purely creative process.

IV. Fill in the gaps:

1) Industrial design is …
2) Industrial designers solve the problems of …
3) The process of industrial design is both … and …
4) Industrial designers need to have computer skills, e.g. …

LEXICAL EXERCISES

I. Find out words synonymous to:

to collaborate, to improve, usually, to reduce, attractive, to quote, to cover, sphere, to learn, to perform, masterpiece.

II. Word building. Fill in the gaps in the table below:

Nouns	Verbs	Adjectives	Adverbs
expectation	…	…	…
…	…	…	mutually
…	to vary	…	…
…	to compare	…	…
…	to locate	…	…
…	…	additional	…
concern	…	…	…
…	to interact	…	…
…	to relate	…	…
exhibition	…	…	…

III. Find out words antonymous to:
rarely, to raise, damage, to stay, synthetical.

IV. Translate the following expressions and use them in your own situations:
cross-cultural communication, mutual benefit, comparative studies, value added tax (VAT), in detail, to lower costs, work of art.

GRAMMAR EXERCISES

I. Identify the following verb forms:
may be improved, to create, partner, specified, is presented, may lead, improved, are considered, has, is based, practicing, can overlap, ranging, related.

II. Make the following sentences negative:
1) They study both function and form, and the connection between product and the user.
2) Industrial designers are a cross between a mechanical engineer and an artist.

3) Industrial design has no focus on technical concepts, products and processes.
4) The use of industrial designers in a product development process may lead to added values by improved usability, lowered production costs and more appealing products.

III. Fill in the gaps using *either … or, neither … nor, both … and, so do I, neither do I:*
1) Industrial designers study … function … form.
2) Industrial design focuses on … technical concepts … products.
3) I'm working in the sphere of industrial design. – … I.
4) I'm not really good at computers. - … I.
5) If you want to be a successful designer, you've got to have … a good education … a considerable experience in this area.

DISCUSSION

Work in pairs and discuss the following topics:
a) The Role of Industrial Design in Modern Life.
b) The Task of an Industrial Designer.
c) Spheres of Industrial Design.
d) Skills and Knowledge Necessary to Become an Industrial Designer.

ADDITIONAL TASKS

Read the article and speak out on it:
http://ezinearticles.com/?Industrial-Design-as-a-Profession&id=1046344

LESSON 2
ERGONOMICS

Active vocabulary of the lesson:
ergonomics – эргономика
interaction – взаимодействие
principle – принцип
efficient – эффективный
equally – равнозначно
utility – практичность, польза
feedback – отклик, реакция
preconceived – предвзятый
durability – прочность, долговечность
value – ценность, важность
willingly – добровольно

I. Read and translate the text and give the main idea.

Ergonomics derives from two Greek words: *ergon*, meaning 'work', and *nomoi*, meaning 'natural laws', to create a word that means the science of work and a person's relationship to that work.

The International Ergonomics Association has adopted this technical definition: ergonomics (or human factors) is the scientific discipline concerned with the understanding of interactions among humans and other elements of a system, and the profession that applies theory, principles, data and methods to design in order to optimize human well-being and overall system performance.

At its simplest definition ergonomics literally means the science of work. So ergonomists, i.e. the practitioners of ergonomics, study work, how work is done and how to work better.

It is the attempt to make work better that ergonomics becomes so useful. And that is also where making things comfortable and efficient comes into play. Ergonomics is com-

monly thought of in terms of products. But it can be equally useful in the design of services or processes.

It is used in design in many complex ways. However, what you, or the user, is most concerned with is, “How can I use the product or service, will it meet my needs, and will I like using it?” Ergonomics helps define how it is used, how it meets your needs and most importantly if you like it. It makes things comfy and efficient.

Comfort is much more than a soft handle. Comfort is one of the greatest aspects of a design’s effectiveness. Comfort in the human-machine interface and the mental aspects of the product or service is a primary ergonomic design concern. Comfort in the human-machine interface is usually noticed first. Physical comfort in how an item feels is pleasing to the user. If you do not like to touch it you won't. If you do not touch it you will not operate it. If you do not operate it, then it is useless.

The utility of an item is the only true measure of the quality of its design. The job of any designer is to find innovative ways to increase the utility of a product. Making an item intuitive and comfortable to use will ensure its success in the marketplace. Physical comfort while using an item increases its utility. The mental aspect of comfort in the human-machine interface is found in feedback. You have preconceived notions of certain things. A quality product should feel like it is made out of quality materials. If it is light weight and flimsy you will not feel that comfortable using it.

The look, feel, use and durability of a product help you make a mental determination about a product or service. Basically it lets you evaluate the quality of the item and compare that to the cost. Better ergonomics mean better quality which means you will be more comfortable with the value of the item.

Efficiency is quite simply making something easier to do. Efficiency comes in many forms however. Reducing the

strength required makes a process more physically efficient. Reducing the number of steps in a task makes it quicker (i.e. efficient) to complete. Reducing the number of parts makes repairs more efficient. Reducing the amount of training needed, i.e. making it more intuitive, gives you a larger number of people who are qualified to perform the task. Imagine how inefficient trash disposal would be if your teenage child wasn't capable of taking out the garbage. What? They're not? Have you tried an ergonomic trash bag?

Efficiency can be found almost everywhere. If something is easier to do you are more likely to do it. If you do it more, then it is more useful. Again, utility is the only true measure of the quality of a design. And if you willingly do something more often you have a greater chance of liking it. If you like doing it you will be more comfortable doing it. So the next time you hear the term ergonomics you will know what it means to you. And I hope that is a comforting thought.

II. Answer the questions:

1) What does the word ‘ergonomics’ mean?
2) What’s the modern definition of this term?
3) Why is comfort considered one of the most important aspects of design?
4) Why do comfortable things seem to be of better quality?
5) How do you personally understand the word ‘efficiency’?
6) Can you give your own definition of ‘ergonomics’ in terms of quality and efficiency?

III. True or false:

1) Ergonomics derives from two Latin words.
2) Ergonomics can not be applied in terms of processes.
3) Comfort of a product can be both physical and mental.
4) Ergonomics has nothing to do with quality of a product.
5) Efficiency is making something more difficult to do.

IV. Fill in the gaps:
1) I do love this new sofa. It's so … .
2) She has always been extremely hard-working. I think she'll become an … housewife.
3) I doubt … of this cell phone. It looks so light and flimsy.
4) Every writer needs … from his or her readers.
5) I need to take … before I start to sew the jacket.

LEXICAL EXERCISES

I. Make up expressions with the given new words:
ergonomics, feedback, durability, value, well-being, comfy, utility, efficient, principle.

II. Word building. Fill in the gaps in the table below:

Nouns	Verbs	Adjectives	Adverbs
…	…	scientific	…
performance	…	…	…
…	…	…	commonly
…	…	…	equally
…	…	efficient	…
effectiveness	…	…	…
…	to please	…	…
…	to increase	…	…
weight	…	…	…
…	…	valuable	…
…	…	intuitive	…
comfort	…	…	…

III. Find out words synonymous to:
efficient, data, to optimize, attempt, commonly, goods, complex, primary, real, to guarantee, trash.

IV. Find out words antonymous to:
physical, true, useful, to destroy, to decrease, efficient, to fancy, indifferent.

V. Translate the following expressions and use them in your own situations:
law and order, to adopt a child, General Practitioner (GP), common people, to meet one's needs, to take measurements, furniture item.

GRAMMAR EXERCISES

I. Identify the following verb forms:
derives, meaning, has adopted, concerned with, the understanding, is commonly thought of, will ensure, have, should feel, using, lets, hear, reducing, imagine.

II. Make the following sentences negative:
1) Ergonomics derives from two Greek words.
2) Efficiency can be found almost everywhere.
3) The International Ergonomics Association has adopted this technical definition.
4) Reducing the strength required makes a process more physically efficient.
5) Better ergonomics mean better quality which means you will be more comfortable with the value of the item.

III. Make up questions:
1) word / mean / what / the / does / ergonomics / ?
2) the / of / term / you / know / do / this / definition / ?
3) helps / quality / understand / the / of / is / what / you / high / product / that / ?
4) an / aspect / design / is / important / comfort / of / ?
5) forms / utility / mentioned / what / in / story / are / of / the / ?

IV. Fill in the gaps. Every sentence contains the forms of the Present Simple and Future Simple Tenses.

1) If you … (to want) to become an industrial designer you … (to have) to learn lots of things including ergonomics.
2) The product … (to be) of high quality if the designer … (to concern) both comfort and ergonomics.
3) … you return an item if it … (to turn out) faulty?
4) What products … you … (to produce) if you … (to work) as an industrial designer?
5) What sphere of design … you … (to work) in if you … (to have) a chance.

V. Translate into English:

Наши отношения с предметным миром не могут быть ограничены любованием эстетическими достоинствами внешней формы. Практическое назначение предметов, обращение с ними требует своего осмысления, особенно на производстве, где успех дела во многом зависит от того, как приспособлена машина к возможностям человека и его особенностям. Вопросами проектирования удобных орудий труда, быта, а в целом – созданием комфортной предметно-пространственной среды для самых различных процессов жизнедеятельности человека является эргономика.

Термин "*эргономика*" был принят в Англии в 1949г., когда группа английских ученых основала эргономическое исследовательское общество. Члены этого общества ставили задачу по решению проблемы рациональной организации труда.

Эргономика сложилась как комплексная дисциплина на стыке ряда технических наук и психологии, физиологии, гигиены, анатомии, биомеханики, антропологии, биофизики. В ее задачи входит всестороннее изучение функциональных особенностей и

возможностей человека в процессе его жизнедеятельности и взаимодействии с окружающими предметами.

Она представлена тремя составляющими – *антропометрией*, исследующей строение человеческого тела с учетом половых, возрастных, этнических, профессиональных и других особенностей, *инженерной психологией*, рассматривающей взаимосвязь человека и техники для обеспечения наилучших условий и результатов труда, и *психологией восприятия*, изучающей особенности и закономерности зрительного и тактильного восприятия окружающего предметного мира и т.д.

DISCUSSION

Work in pairs and discuss the following topics:

a) The Role of Ergonomics in Design.
b) Aspects of Ergonomics.
c) My Project in Terms of Ergonomics.

ADDITIONAL TASKS

Look at these, translate inscriptions and use these rules in your everyday life:

http://www.midpenchiro.com/uploads/Image/WorkstationErgonomics.gif
http://rochesterchiro.files.wordpress.com/2008/11/ergonomics.jpg
http://www.ec4physio.com/images/ergonomics.gif

LESSON 3
PRODUCT DEVELOPMENT

Active vocabulary of the lesson:
overall – полный, общий
threat – угроза
competitor – конкурент
spy – шпион
insight – понимание
brainstorming – решение проблемы путем мозговой атаки
forecast – прогноз
target – цель, целевой
pressure – давление
estimate – оценивать
to launch – запускать (проект)
revenue – доход
promotion – продвижение
impact – влияние

I. Read and translate the text and give the main idea.

In business and engineering, new product development (NPD) is the term used to describe the complete process of bringing a new product or service to market. There are two parallel paths involved in the NPD process: one involves the idea generation, product design and detail engineering; the other involves market research and marketing analysis. Companies typically see new product development as the first stage in generating and commercializing new products within the overall strategic process of product life cycle management used to maintain or grow their market share.

Idea Generation is often called the "fuzzy front end" of the NPD process. Ideas for new products can be obtained from basic research using a SWOT analysis (Strengths, Weaknesses, Opportunities & Threats), Market and consumer trends, com-

pany's R&D department, competitors, focus groups, employees, salespeople, corporate spies, trade shows, or Ethnographic discovery methods (searching for user patterns and habits) may also be used to get an insight into new product lines or product features.

Idea Generation or Brainstorming of new product, service, or store concepts - idea generation techniques can begin when you have done your OPPORTUNITY ANALYSIS to support your ideas in the Idea Screening Phase (shown in the next development step).

Idea Screening - the screeners should ask several questions:

Will the customer in the target market benefit from the product? What is the size and growth forecasts of the market segment/target market? What is the current or expected competitive pressure for the product idea? What are the industry sales and market trends the product idea is based on? Is it technically feasible to manufacture the product? Will the product be profitable when manufactured and delivered to the customer at the target price?

Concept Development and Testing

Who is the target market and who is the decision maker in the purchasing process? What product features must the product incorporate? What benefits will the product provide? How will consumers react to the product? How will the product be produced most cost effectively? Prove feasibility through virtual computer aided rendering, and rapid prototyping. What will it cost to produce it?

Testing the Concept by asking a sample of prospective customers what they think of the idea.

Business Analysis - estimate likely selling price based upon competition and customer feedback.

Beta Testing and Market Testing - produce a physical prototype or mock-up, test the product (and its packaging) in typical usage situations, conduct focus group customer interviews or

introduce at trade show, make adjustments where necessary, produce an initial run of the product and sell it in a test market area to determine customer acceptance.

Technical Implementation - new program initiation, finalize quality management system, resource estimation, requirement publication, publish technical communications such as data sheets, engineering operations planning, department scheduling, supplier collaboration, logistics plan, resource plan publication, program review and monitoring, what-if planning.

Commercialization (often considered post-NPD) - launch the product, produce and place advertisements and other promotions, fill the distribution pipeline with product, critical path analysis is most useful at this stage.

New Product Pricing - impact of new product on the entire product portfolio, value analysis (internal & external), competition and alternative competitive technologies, differing value segments (price, value, and need), product costs (fixed & variable), forecast of unit volumes, revenue, and profit.

II. Answer the questions:

1) What is NPD?
2) What stages does NPD include?
3) What does SWOT stand for?
4) How do you understand the term ‘brainstorming’?
5) What questions do screeners ask?
6) What is post-NPD stage?

III. Fill in the gaps:

1) Brainstorming is …
2) Mock-up is …
3) The ‘fuzzy front end’ is …
4) Screening is …
5) Technical implementation includes …

LEXICAL EXERCISES

I. Make up expressions with the given new words:
market, price, benefit, profit, competitor, customer, spy, trade, schedule, promotion, estimation, technique, threat, value, volume.

II. Word building. Fill in the gaps in the table below:

Nouns	Verbs	Adjectives	Adverbs
…	to generate	…	…
strategy	…	…	…
…	to compete	…	…
…	…	…	technically
delivery	…	…	…
…	…	…	effectively
…	to adjuct	…	…
…	to estimate	…	…
commerce	…	…	…
…	…	entire	…

III. Find out words synonymous to:
chance, phase, prediction, to send, pluses, influence, variable, income.

IV. Find out words antonymous to:
last, partner, unreal, disadvantages, slow, unlikely.

V. Translate the following expressions and use them in your own situations:
company's shareholders, department store, weather forecast, current events, to deliver post, target market, to make a decision, to launch a project, fixed price.

GRAMMAR EXERCISES

I. Identify the following verb forms:
used to describe, may be used to get, have done, to support, shown, should ask, by asking, think of, can begin.

II. Make the following sentences negative:
1) New product development (NPD) is the term used to describe the complete process of bringing a new product or service to market.
2) There are two parallel paths involved in the NPD process.
3) Ideas for new products can be obtained from basic research using a SWOT analysis.
4) The screeners should ask several questions.

IV. Fill in the gaps using Unreal Conditionals:
1) If I … (to be) a designer I … (to produce) consumer goods.
2) If I … (to have) lots of ideas I … (to sell) them to designers.
3) If I … (to have) a million I … (to have) my own company.
4) If I … (to own) a company I … (to hire) talented students.
4) If I … (can) draw well I … (to become) an engineer.

DISCUSSION

Work in pairs and think out strategies to develop the following products:
a) cell phone; b) desk; c) electric kettle; d) road car; e) airplane.

ADDITIONAL TASKS

Study this diagram and retell the text above with its help:
http://www.adept-plm.com/images/npd_f2b_process.gif

LESSON 4
CHAIR: DESIGN & ERGONOMICS

Active vocabulary of the lesson:
size – размер
to recline – отклоняться, откидываться
to support – поддерживать
height – высота
lumbar – поясничный
collision – столкновение
rocking chair – кресло-качалка
cushion – подушка
padding – набивка
flexible – гибкий
wicker – прутья для плетения
density – плотность
measurement – размер
knees – колени
heels – пятки
inch – дюйм
popliteal – подколенный

I. Read and translate the text and give the main idea.

Chair design considers intended usage, ergonomics (how comfortable it is for the occupant), as well as non-ergonomic functional requirements such as size, stackability, foldability, weight, durability, stain resistance and artistic design. Intended usage determines the desired seating position. "Task chairs", or any chair intended for people to work at a desk or table, including dining chairs, can only recline very slightly; otherwise the occupant is too far away from the desk or table. Dental chairs are necessarily reclined. Easy chairs for watching television or movies are somewhere in between depending on the height of the screen.

Ergonomic design distributes the weight of the occupant to various parts of the body. A seat that is higher results in dangling feet and increased pressure on the underside of the knees ("popliteal fold"). It may also result in no weight on the feet which means more weight elsewhere. A lower seat may shift too much weight to the "seat bones" ("ischial tuberosities").

A reclining seat and back will shift weight to the occupant's back. This may be more comfortable for some in reducing weight on the seat area, but may be problematic for others who have bad backs. In general, if the occupant is supposed to sit for a long time, weight needs to be taken off the seat area and thus "easy" chairs intended for long periods of sitting are generally at least slightly reclined. However, reclining may not be suitable for chairs intended for work or eating at table.

The back of the chair will support some of the weight of the occupant, reducing the weight on other parts of the body. In general, backrests come in three heights: Lower back backrests support only the lumbar region. Shoulder height backrests support the entire back and shoulders. Headrests support the head as well and are important in vehicles for preventing "whiplash" neck injuries in rear-end collisions where the head is jerked back suddenly. Reclining chairs typically have at least shoulder height backrests to shift weight to the shoulders instead of just the lower back.

Some chairs have foot rests. A stool or other simple chair may have a simple straight or curved bar near the bottom for the sitter to place his or her feet on. Some chairs have two curved bands of wood (also known as rockers) attached to the bottom of the legs. They are called rocking chairs.

A kneeling chair adds an additional body part, the knees, to support the weight of the body. A sit-stand chair distributes most of the weight of the occupant to the feet. Many chairs are padded or have cushions. Padding can be on the seat

of the chair only, on the seat and back, or also on any arm rests and/or foot rest the chair may have.

Padding will not shift the weight to different parts of the body (unless the chair is so soft that the shape is altered). However, padding does distribute the weight by increasing the area of contact between the chair and the body. A hard wood chair feels hard because the contact point between the occupant and the chair is small. The same body weight over a smaller area means greater pressure on that area. Spreading the area reduces the pressure at any given point. In lieu of padding, flexible materials, such as wicker, may be used instead with similar effects of distributing the weight. Since most of the body weight is supported in the back of the seat, padding there should be firmer than the front of the seat which only has the weight of the legs to support. Chairs that have padding that is the same density front and back will feel soft in the back area and hard to the underside of the knees.

Actual chair dimensions are determined by measurements of the human body or anthropometric measurements. The two most relevant anthropometric measurements for chair design is the popliteal height and buttock popliteal length.

For someone seated, the popliteal height is the distance from the underside of the foot to the underside of the thigh at the knees. It is sometimes called the "stool height." The term "sitting height" is reserved for the height to the top of the head when seated. For American men, the median popliteal height is 16.3 inches and for American women it is 15.0 inches. The popliteal height, after adjusting for heels, clothing and other issues is used to determine the height of the chair seat. Mass produced chairs are typically 17 inches high.

For someone seated, the buttock popliteal length is the horizontal distance from the back most part of the buttocks to the back of the lower leg. This anthropometric measurement is

used to determine the seat depth. Mass produced chairs are typically 15-17 inches deep.

II. Answer the questions:

1) What types of chairs do you know?
2) Why should dining chairs be reclined but slightly?
3) What sorts of chairs need reclining? What for?
4) Why is it vital to consider the occupant's weight when making a chair?
5) What function do backrests perform?
6) Do you have a rocking chair in your bungalow?
7) Which anthropometric measurements are relevant for chair design?
8) Do you know the term for 'stool height'?
9) Do you know the term for 'seat depth'?

III. True or false:

1) 'Task chairs' are all chairs except dining chairs.
2) Reclining is necessary if the chair is intended for long periods of sitting.
3) Rocking chairs have no footrests.
4) The popliteal height determines the seat depth.
5) Paddings are only used for comfort.

IV. Fill in the gaps:

1) This fabric is very soft and … resistant.
2) Jack is not very tall. He is of medium … .
3) You need to take better care of yourself. Your blood … is too high.
4) She is so glamorous. She can't do without her little black dress and high … .
5) Jane's made three nice … for the sofa.

LEXICAL EXERCISES

I. Make up expressions with the given new words:
anthropometric, flexibility, resistance, durability, occupant, density, weight, height, back, chair, padding, headrests.

II. Word building. Fill in the gaps in the table below:

Nouns	Verbs	Adjectives	Adverbs
…	to fold	…	…
…	…	durable	…
…	…	resistant	…
…	…	…	slightly
…	to occupy	…	…
…	to suit	…	…
…	…	…	typically
…	…	additional	…
…	to press	…	…
density	…	…	…
horizon	…	…	…
...	to distribute	...	...
...	to weigh	...	...
height	...	...	...
...	...	long	...
rest	...	...	...
distance	...	...	...

III. Find out words synonymous to:
various, tension, period, nevertheless, region, also, normally, extra, to alter, in lieu of, relevant.

IV. Find out words antonymous to:
slightly, for a short time, upper, simple, firm, curved.

V. Translate the following expressions and use them in your own situations:
blood pressure, medium height, to take a seat, in lieu of, hard wood, in the distance, human being, on foot, to put on / lose weight.

GRAMMAR EXERCISES

I. Identify the following verb forms:
considers, intended, may also result, will shift, reducing, have, curved, kneeling, may be used, has, are determined, is reserved.

II. Make the following sentences negative:
1) Backrests come in three heights.
2) Ergonomic design distributes the weight of the occupant to various parts of the body.
3) Actual chair dimensions are determined by measurements of the human body or anthropometric measurements.
4) Chairs that have padding that is the same density front and back will feel soft in the back area and hard to the underside of the knees.
5) Some chairs have foot rests.

III. Make up different types of questions:
1) The term "sitting height" is reserved for the height to the top of the head when seated.
2) Shoulder height backrests support the entire back and shoulders.
3) A reclining seat and back will shift weight to the occupant's back.
4) Ergonomic design distributes the weight of the occupant to various parts of the body.

IV. Fill in the gaps using *There is / There are:*

1) There … two main anthropometric measurements for chair design.
2) In my room there … a rocking chair and two armchairs.
3) Centuries ago there … no so many nuances in furniture design.
4) When I build my own house, I'll furnish it the way I want: there … be oak chairs, mahogany tables and other luxurious furniture items.
5) I'll buy this house even if there … no facilities.

DISCUSSION

I. Work in pairs and discuss the following topics:

a) My Favourite Furniture Items.
b) The History of The Chair.
c) Innovations in Modern Furniture Design.
d) My Own Furniture Design.

II. Find out information and tell about the history of the following furniture items:

a) Sofa.
b) Wall unit.
c) Armchair.
d) Desk.
e) Dressing table.

LESSON 5
OLYMPUS INDUSTRIAL

Active vocabulary of the lesson:
remote control – пульт управления
equipment – оборудование
ease – легкость
robust – прочный, крепкий
cohesive – связующий
refined – изящный
frame – кадр

I. Read and translate the text and give the main idea.

Olympus Industrial, the world leader in remote visual inspection equipment, has launched i-SPEED a high speed video (HSV) system that provides a slow-motion view of high speed events. Designed with PDD, the aim was to develop a product with improved portability, functionality and ease of use, at the forefront of its specification.

PDD developed the industrial design to create a visual brand language across the three components of the system: camera, display unit and remote control. The design needed to reflect the sophistication of the technology and be robust enough for use in industrial environments. Careful handling of design details, materials and finishes resulted in a cohesive and refined system image.

PDD worked closely with the Olympus team to understand end-user requirements and to optimise the ergonomics of the three different units. The camera can be configured with either the remote control, display unit or connected to a PC. This flexibility and ease of use make the system suitable for general and advanced users alike. Just power on and the system

is ready to capture high speed events at up to 33.000 frames per second.

II. Answer the questions:
1) What device is presented in this ad?
2) What parts does it consist of?
3) What makes it different from other devices of the kind?
4) What innovations did industrial designers introduce when making this camera?
5) Now, having read this ad, would you buy this product? Why?
6) What would you personally add into this camera if you were its designer?

III. True or false:
1) The aim of the industrial designers was to make an attractive device.
2) Designers worked separately from Olympus team.
3) This camera can be connected to a computer.
4) This camera is made especially for advanced users.

LEXICAL EXERCISES

I. Make up expressions with the given new words:
brand, equipment, to handle, user, portable, ease, speed, sophistication.

II. Find out words synonymous to:
distant, aim, simplicity, block, strong, experienced, to catch, shot.

III. Find out words antonymous to:
separately, primitive, careless, rigid, beginner, to turn off, low.

IV. Word building. Fill in the gaps in the table below:

Nouns	Verbs	Adjectives	Adverbs
…	to equip	…	…
…	…	careful	…
sophistication	…	…	…
…	to require	…	…
…	…	cohesive	…
portability	…	…	…
…	to function	…	…
…	…	flexible	…
…	…	suitable	…

GRAMMAR EXERCISES

I. Identify the following verb forms:
has launched, worked, make, to capture, needed, improved, was to develop, developed, advanced, can be configured.

II. Make the following sentences negative:
1) PDD developed the industrial design to create a visual brand language across the three components of the system.
2) Power on and the system is ready to capture high speed events at up to 33.000 frames per second.
3) The camera can be configured with either the remote control, display unit or connected to a PC.
4) Careful handling of design details, materials and finishes resulted in a cohesive and refined system image.
5) The aim was to develop a product with improved portability, functionality and ease of use, at the forefront of its specification.
6) The design needed to reflect the sophistication of the technology.

III. Make up four types of questions:
1) PDD worked closely with the Olympus team.
2) The design needed to reflect the sophistication of the technology and be robust enough for use in industrial environments.
3) This flexibility and ease of use make the system suitable for general and advanced users alike.

IV. Fill in the gaps:
1) The supervisor approved … this idea.
2) The new camera consists … three units.
3) We've been congratulated … the launch of the project.
4) Are you good … drawing?
5) What's this designer famous … ?
6) We're really optimistic … the future of the firm.
7) Nowadays people are accustomed … comfort.
8) Are you allergic … this varnish?

DISCUSSION

Work in pairs and develop the ad campaign of:
a) washing machine; b) iron; c) laptop; d) walkman.

ADDITIONAL TASKS

Read this article and say which smartphone you would personally choose:
http://www.articlealley.com/article_930917_45.html

LESSON 6
AUTOMOTIVE DESIGN

Active vocabulary of the lesson:
automotive – автомобильный
vehicle – транспортное средство
motorcycle – мотоцикл
truck/lorry – грузовик
coach – вагон
van – фургон
gadgetry – аппаратура, техника
satellite – спутник, спутниковый
digital – цифровой
surface – поверхность
passenger – пассажир
leather – кожа
carpet – ковер

I. Read and translate the text and give the main idea.

Automotive design is the profession involved in the development of the appearance, and to some extent the ergonomics of motor vehicles or road vehicles. This most commonly refers to automobiles but also refers to motorcycles, trucks, buses, coaches, and vans.

The functional design and development of a modern motor vehicle is typically done by a large team from many different disciplines. Automotive design in this context is primarily concerned with developing the visual appearance or aesthetics of the vehicle, though it is also involved in the creation of the product concept. Automotive design is practiced by designers who usually have an art background and a degree in industrial design or transportation design.

The task of the design team is usually split into three main aspects: exterior design, interior design, and colour and

trim design. Graphic design is also an aspect of automotive design; this is generally shared amongst the design team.

Design focuses not only on the isolated outer shape of automobile parts, but concentrates on the combination of form and function, starting from the vehicle package. The aesthetic value will need to correspond to ergonomic functionality and utility features as well. In particular, electronic components and parts will give more challenges to automotive designers who are required to update on the latest information and knowledge associated with emerging vehicular gadgetry, particularly dash-top mobile devices, like GPS navigation, satellite radio, HD radio, mobile TV, MP3 players, video playback and smart-phone interfaces. Though not all the new vehicular gadgets are to be designated as factory standard items, but some of them may be integral to determining the future course of any specific vehicular models.

The stylist responsible for the design of the exterior of the vehicle develops the proportions, shape, and surfaces of the vehicle. Exterior design is first done by a series of digital or manual drawings. Progressively more detailed drawings are executed and approved. Clay (industrial plasticine) and or digital models are developed from, and along with the drawings. The data from these models are then used to create a full sized mock-up of the final design (body in white). With 3 and 5 axis CNC Milling Machines, the clay model is first designed in a computer program and then "carved" using the machine and large amounts of clay. Even in times of high-class 3d software and virtual models on powerwalls the clay model is still the most important tool to evaluate the design of a car and therefore used throughout the industry.

The stylist responsible for the design of the vehicle interior develops the proportions, shape, placement, and surfaces for the instrument panel, seats, door trim panels, headliner, pillar trims, etc. Here the emphasis is on ergonomics and the com-

fort of the passengers. The procedure here is the same as with exterior design (sketch, digital model and clay model).

The colour and trim (or colour and materials) designer is responsible for the research, design, and development of all interior and exterior colours and materials used on a vehicle. These include paints, plastics, fabric designs, leather, grains, carpet, headliner, wood trim, and so on. Colour, contrast, texture, and pattern must be carefully combined to give the vehicle a unique interior environment experience. Designers work closely with the exterior and interior designers.

II. Answer the questions:

1) Can you give the definition to 'automotive design'?
2) What three main aspects does automotive design include?
3) What new gadgets are modern cars equipped with?
4) What aspects of the vehicle exterior design do you know?
5) What does design of a vehicle start with?
6) What responsibilities does the colour and trim designer have?
7) How can graphic and automotive design be connected?

III. True or false:

1) Automotive design is only concerned with developing the visual appearance or aesthetics of the vehicle.
2) Design of the vehicle exterior has bigger emphasis on ergonomics than any other aspect.
3) Automotive designers start with making a sketch and clay models.
4) When making a vehicle, teams of designers work separately.
5) Clay models are losing their popularity in the 21st century.

IV. Fill in the gaps:

1) There are lots of … and appliances in modern houses: electric kettles, trash disposals, juicers, mixers and mincers, … television.
2) John has always loved big cars, so now he's driving a … .
3) How many … can this plane take? – About 400 people.
4) … designers are still making … models of their future cars.
5) He draws … from nature, people, animals and new places.

LEXICAL EXERCISES

I. Word building. Fill in the gaps in the table below:

Nouns	Verbs	Adjectives	Adverbs
motor	…	…	…
…	to inform	…	…
…	…	vehicular	…
…	to integrate	…	…
…	…	…	progressively
…	to carve	…	…
…	…	responsible	…
emphasis	…	…	…
…	…	digital	…
…	…	plastic	…
leather	…	…	…
…	…	…	carefully
…	…	…	closely

II. Make up expressions with the given new words:

bumper, tire, spoiler, vehicle horn, windscreen, wing mirror, seat belts, car alarm, steering wheel, air conditioning, hand brake, gear stick, speedometer, night vision, sunroof, windscreen wiper, headlamp.

III. Find out words synonymous to:
truck, road, to split, aspect, to improve, device, mobile phone, instrument, accent.

IV. Find out words antonymous to:
exterior, modern, in particular, large, the same, to approve, separately.

V. Translate the following expressions and use them in your own situations:
degree in design, 3d software, steering wheel, to draw inspiration, challenging job, satellite TV, vehicular gadgetry, exterior design, in particular.

GRAMMAR EXERCISES

I. Identify the following verb forms:
involved, refers to, is practiced by, focuses, will need to correspond, are used to create, include, is done, are created, must be combined to give, work.

II. Make the following sentences negative:
1) This refers to automobiles but also refers to motorcycles, trucks, buses, coaches, and vans.
2) Exterior design is first done by a series of digital or manual drawings.
3) The stylist responsible for the design of the vehicle interior develops the proportions, shape, placement, and surfaces for the instrument panel, seats, door trim panels, headliner, pillar trims.
4) The aesthetic value will need to correspond to ergonomic functionality and utility features as well.
5) The design team also develop graphics for items such as: badges, decals, dials, switches, kick or tread strips, liveries.

III. Make up questions:
1) do / draw / inspiration / where / your / you / ?
2) do / have / you / driver's / license / a / ?
3) you / made / clay / of / ever / car / a / a / have / model / ?
4) vehicular / you / what / do / gadgets / know / ?
5) would / to / in / future / sort / what / car / have / the / like / you / of / ?

IV. Fill in the gaps using Complex Object:
1) I've heard him … (to buy) a new lorry.
2) I want you … (to fix) my car's bumper as soon as you can!
3) He saw her … (to drive) that car at a high speed.
4) We expect this company … (to build) a new model of cars.
5) She'd like him ... (to give) her a car as a present.
6) We heard them … (to talk) to new clients.
7) I'd like you … (to go) to the exhibition with me.
8) I saw him … (to repair) his motorcycle.

DISCUSSION

Work in pairs and discuss the following topics:
a) The Role of Automotive Design in Modern Life.
b) The Car of My Dream.
c) Automotive Design in Russia and Abroad.

ADDITIONAL TASKS

Read these articles about locomotive design and retell in class:
http://en.wikipedia.org/wiki/Locomotive
http://www.southernsteamtrains.com/manual/locodesign.htm

LESSON 7
FERRARI

Active vocabulary of the lesson:
to found – основывать
race car – гоночная машина
amateur – любитель
headquarters – штаб-квартира
to prohibit – запрещать
aircraft – воздушное судно
competition – соревнование
works – завод
engine – двигатель
auction – аукцион
lap – круг (гоночный)

I. Read and translate the text and give the main idea.

Ferrari S.p.A. is an Italian sports car manufacturer based in Maranello, Italy. Founded by Enzo Ferrari in 1929, as Scuderia Ferrari, the company sponsored drivers and manufactured race cars before moving into production of street-legal vehicles as Ferrari S.p.A. in 1947. Throughout its history, the company has been noted for its continued participation in racing, especially in Formula One, where it has had great success.

Enzo Ferrari never intended to produce road cars when he formed Scuderia Ferrari (literally "Ferrari Stable", and usually used to mean "Team Ferrari", it is correctly pronounced [skuderia]) in 1928 as a sponsor for amateur drivers headquartered in Modena. Ferrari prepared, and successfully raced, various drivers in Alfa Romeo cars until 1938, when he was hired by Alfa Romeo to head their motor racing department.

In 1941, Alfa Romeo was confiscated by the Fascist government of Benito Mussolini as part of the Axis Powers' war effort. Enzo Ferrari's division was small enough to be unaf-

fected by this. Because he was prohibited by contract from racing for four years, the Scuderia briefly became Auto Avio Costruzioni Ferrari, which ostensibly produced machine tools and aircraft accessories. Also known as SEFAC (Scuderia Enzo Ferrari Auto Corse), Ferrari did in fact produce one race car, the Tipo 815, in the non-competition period. It was the first actual Ferrari car (it debuted at the 1940 Mille Miglia), but due to World War II it saw little competition. In 1943 the Ferrari factory moved to Maranello, where it has remained ever since. The factory was bombed by the Allies in 1944 and rebuilt in 1946, after the war ended, and included a works for road car production.

The first Ferrari road car was the 1947 125 S, powered by a 1.5 L V12 engine; Enzo Ferrari reluctantly built and sold his automobiles to fund Scuderia Ferrari. While his beautiful and fast cars quickly gained a reputation for excellence, Enzo maintained a famous distaste for his customers.

In 1988, Enzo Ferrari oversaw the launch of the Ferrari F40, the last new Ferrari to be launched before his death later that year, and arguably one of the most famous supercars ever made.

On May 17, 2009 in Maranello, Italy, a 1957 250 Testa Rossa (TR) was auctioned, by RM Auctions and Sotheby's, for $12.1 million — a world record at that time for the most expensive car ever sold at an auction. That record is now held by a Bugatti Atlantic which sold for over $28 million.

Scuderia Ferrari won a Formula One driver's title in 2007, with Kimi Räikkönen. Alberto Ascari gave Ferrari its first Drivers Championship a year later. Ferrari is the oldest team in the championship, and the most successful: the team holds nearly every Formula One record. As of 2008, the team's records include 15 World Drivers Championship titles, 16 World Constructors Championship titles, 209 Grand Prix victo-

ries, 4925.27 points, 622 podium finishes, 203 pole positions, and 218 fastest laps in 776 Grands Prix contested.

II. Answer the questions:

1) When was Scuderia Ferrari founded?
2) When did Enzo Ferrari build his first road car? Why?
3) Why did the company have to produce machine tools?
4) Did Ferrari manage to produce any race cars during the non-competition period?
5) What notable Ferrari drivers do you know?
6) What's the most expensive car ever sold?

III. True or false:

1) Scuderia Ferrari means 'Team Ferrari'.
2) Enzo Ferrari built his works to produce both race and road cars.
3) Ferrari used to produce aircraft accessories.
4) The Ferrari factory is based in Rome.
5) Ferrari is the oldest team in Formula One.

IV. Fill in the gaps:

1) Soccer is … football.
2) Do you know who won the … ?
3) The new project was … in 2007.
4) You mustn't smoke here. It's absolutely … .
5) Ferrari is a world-known manufacturer of … cars.
6) Don't retell this text in detail. You'd better do it in … .
7) This company has reasonably … its reputation.
8) Which … won the championships? – Ferrari, as usual.

LEXICAL EXERCISES

I. Make up expressions with the given new words:
race car, supercar, road car, machine tools, engine, racing, driver, motorsport, team, competition, contest, lap, pole position, to launch, to win.

II. Find out words synonymous to:
sports car, to form, long-lasting, to forbid, because of, factory , perfection, client.

III. Find out words antonymous to:
to allow, professional, to fire, modestly, willingly, to defeat, slow.

IV. Word building. Fill in the gaps in the table below:

Nouns	Verbs	Adjectives	Adverbs
…	…	…	literally
…	…	…	correctly
…	…	…	successfully
division	…	…	…
…	…	ostensible	…
…	to compete	…	…
excellence	…	…	…
argument	…	…	…
auction	…	…	…
…	…	expensive	…

V. Translate the following expressions and use them in your own situations:
throughout the history, amateur artist, prohibited by law, to launch a project, ever since, to found a company, due to smth, to win a competition.

GRAMMAR EXERCISES

I. Identify the following verb forms:
based, founded, sponsored, before moving, has been noted, has had, is correctly pronounced, was hired, was prohibited, did produce, oversaw, to be launched, ever made, ever sold, is now held.

II. Make the following sentences negative:
1) The company has been noted for its continued participation in racing.
2) In 1943 the Ferrari factory moved to Maranello.
3) Scuderia Ferrari won a Formula One driver's title in 2007.
4) Enzo Ferrari oversaw the launch of the Ferrari F40.
5) Ferrari did in fact produce one race car.
6) Ferrari prepared, and successfully raced, various drivers in Alfa Romeo cars until 1938.

III. Make up questions:
1) The team holds nearly every Formula One record.
2) Auto Avio Costruzioni Ferrari ostensibly produced machine tools and aircraft accessories.
3) Alberto Ascari gave Ferrari its first Drivers Championship a year later.
4) In 1941, Alfa Romeo was confiscated by the Fascist government of Benito Mussolini.
5) Enzo maintained a famous distaste for his customers.
6) It has had great success.
7) The Scuderia briefly became Auto Avio Costruzioni Ferrari.
8) Enzo Ferrari reluctantly built and sold his automobiles to fund Scuderia Ferrari.

IV. Fill in the gaps using Complex Subject:
1) He is said … (to buy) Ferrari last month.

2) They are supposed … (to build) a new supercar now.
3) This racer is said … (to win) the championship next year.
4) Ferrari is considered … (to be) one of the fastest cars in the world.
5) He is thought … (to save) money for two years now to buy a new Ferrari.
6) She is said … (to buy) a new car last week.
7) His motorboat is thought … (to steal) by his neighbour a year ago.
8) The motor company is said … (to sell) next year.

DISCUSSION

I. Work in pairs and discuss the following topics:
a) Best Cars of The Present.
b) How to Build a Supercar.
c) Cars of The Future.

II. Prepare a story about a car of your dream. Use the following expressions:
I would like …, I'm willing to have …, If I had … I would …, I wish …, I'd love to … .

ADDITIONAL TASKS

Look at these photos and say what you like/dislike about these cars:
http://www.novate.ru/files/masha/lamborgini_versace.jpg
http://grandlimo.ru/upload/items/314-original.jpg
http://kpoccobep.su/wp-content/uploads/2009/08/jeep-grand-cherokee-srt8.jpg
http://nano-portal.ru/upload/iblock/d0c/zhig_lunni_style.gif

LESSON 8
HISTORY OF AUTOMOBILE DESIGN IN THE USA

Active vocabulary of the lesson:
saturation – насыщение, насыщенность
annual – ежегодный
to convince – убеждать
obsolescence – устаревание
integrity – целостность
to surpass – превосходить
aeronautical – авиационный
array – множество

I. Read and translate the text and give the main idea.

In the United States, automotive design reached a turning point in 1924 when the American national automobile market began reaching saturation. To maintain unit sales, General Motor's head Alfred P. Sloan Jr. suggested annual model-year design changes to convince car owners that they needed to buy a new replacement each year, an idea borrowed from the bicycle industry (though Sloan usually gets the credit, or blame). Critics called his strategy planned obsolescence. Sloan preferred the term "dynamic obsolescence". This strategy had far-reaching effects on the auto business, the field of product design, and eventually the American economy. The smaller players could not maintain the pace and expense of yearly restyling. Henry Ford did not like the model-year change because he clung to an engineer's notions of simplicity, economics of scale, and design integrity. GM surpassed Ford's sales in 1931 and became the dominant company in the industry thereafter. The frequent design changes also made it necessary to use a body-on-frame rather than the lighter, but less flexible, monocoque design used by most European automakers.

One very well-known American auto stylist is Harley Earl, who brought the tailfin and other aeronautical design references to auto design in the 1950s. He is joined among legendary designers by Gordon Buehrig, responsible for the Auburn 851 and iconic Cord 810 and 812 (hence also the Hupmobile Skylark and the Graham Hollywood). Another notable designer who had a markedly different style was Chrysler group's designer Virgil Exner, an early pioneer of Cab forward (a.k.a.Forward look) design in mid-1950s later adapted by rest of the industry. He is also credited with introducing the pointed tail fins in the 1956 Plymouth Belvedere later adapted by all other Detroit studios. Personal injury litigation had a dramatic effect on the design and appearance of the car in the 20th century. Raymond Loewy was responsible for a number of Studebaker vehicles, including the Starlight (including the iconic bulletnose). Richard A. Teague, who spent most of his career with the American Motor Company, originated the concept of using interchangeable body panels so as to create a wide array of different vehicles using the same stampings. He was responsible for such unique automotive designs as the Pacer, Gremlin, Matador coupe, Jeep Cherokee, and the complete interior of the Eagle Premier.

II. Answer the questions:

1) When did American automotive design become oversaturated?
2) What idea did General Motor’s head suggest to cope with the situation?
3) Why did Henry Ford disapprove of this plan?
4) What famous American auto stylists do you know?
5) Who designed the style of the world-known Jeep Cherokee?

III. True or false:
1) Sloan did not borrow his ideas.
2) Henry Ford did not support Sloan's innovation.
3) Ford's company has never been surpassed by other motor companies.
4) Harley Earl was a famous American hair stylist.

IV. Fill in the gaps:
1) Cord 810 was designed by … .
2) Cab forward was designed by … .
3) Bulletnose was designed by … .
4) Pacer was designed by … .
5) Forward look is actually … .
6) Virgil Exner worked for … .

LEXICAL EXERCISES

I. Word building. Fill in the gaps in the table below:

Nouns	Verbs	Adjectives	Adverbs
…	…	obsolescent	…
…	…	dynamic	…
…	…	annual	…
…	to saturate	…	…
icon	…	…	…
integrity	…	…	…
…	to appear	…	…
adaptation	…	…	…
…	…	complete	…
…	…	…	eventually

II. Find out words synonymous to:
to propose, to persuade, impact, finally, crucial, range, director.

III. Find out words antonymous to:
to dissuade, to praise, complexity, unknown, common.

IV. Translate the following expressions and use them in your own situations:
to reach a turning point, to get the credit, far-raching effect, design integrity, notable designer, dramatic effect, unique design.

GRAMMAR EXERCISES

I. Identify the following verb forms:
reached, to maintain, needed, borrowed, gets, planned obsolescence, could not maintain, did not like, is credited, including, using.

II. Make the following sentences negative. Mind irregular verbs.
1) The American national automobile market began reaching saturation.
2) Richard A. Teague spent most of his career with the American Motor Company.
3) He was responsible for such unique automotive designs as the Pacer, Gremlin etc.
4) The frequent design changes also made it necessary to use a body-on-frame rather than the lighter, but less flexible, monocoque design used by most European automakers.
5) Personal injury litigation had a dramatic effect on the design and appearance of the car in the 20th century.
6) GM surpassed Ford's sales in 1931 and became the dominant company in the industry thereafter.

III. Make up questions:
1) Automotive design reached a turning point in 1924.
2) GM surpassed Ford's sales in 1931.

3) Raymond Loewy was responsible for a number of Studebaker vehicles.

IV. Fill in the gaps using phrasal verbs (*to give up, to give in, to take up, to take off, to think out, to take over, to go on/to keep on, to put on, to put up with, to look for*):

1) This idea is half-baked. Why didn't you … it … properly?
2) The designer had to … a new task.
3) What are you doing here? – I've been … my tools. I've lost them and can't find anywhere.
4) If you can't cope with the task, you've got to … trying anyway and never …
5) We were driving very fast, but finally were …
6) Our director is pretty strange, but we have to … with his whims.
7) The young designer was … the project, although he was rather experienced in that area.
8) I was very persistent, but finally I had to …
9) … this dress! It's gonna look lovely on you!
10) He … smiling, although he was insulted and humiliated.

DISCUSSION

Prepare reports about:

a) The History of French Automobile Industry.
b) The History of Russian Automobile Industry.
c) The History of Automobile Business in Italy.

LESSON 9
HENRY FORD

Active vocabulary of the lesson:
prominent – известный
franchise – привилегия
controversy – полемика
transmission – коробка передач
cylinder – цилиндр
spring – пружина
corrosion – коррозия
aluminum – алюминий
duralumin – дюралюминий
vanadium – ванадий
to withstand – выдерживать
plywood – фанера
fuel – топливо
charcoal – древесный уголь

I. Read and translate the text and give the main idea.

Henry Ford (July 30, 1863 – April 7, 1947) was a prominent American industrialist, the founder of the Ford Motor Company, and sponsor of the development of the assembly line technique of mass production. His introduction of the Model T automobile revolutionized transportation and American industry. As owner of the Ford Motor Company, he became one of the richest and best-known people in the world. He is credited with "Fordism", that is, mass production of inexpensive goods coupled with high wages for workers. Ford had a global vision, with consumerism as the key to peace. His intense commitment to systematically lowering costs resulted in many technical and business innovations, including a franchise system that put a dealership in every city in North America, and

in major cities on six continents. Ford left most of his vast wealth to the Ford Foundation but arranged for his family to control the company permanently.

He was known worldwide especially in the 1920s for a system of Fordism that seemed to promise modernity, high wages and cheap consumer goods, but his anti-Semitism in the 1920s has been a source of controversy.

The Model T was introduced on October 1, 1908. It had the steering wheel on the left, which every other company soon copied. The entire engine and transmission were enclosed; the four cylinders were cast in a solid block; the suspension used two semi-elliptic springs. The car was very simple to drive, and easy and cheap to repair. It was so cheap at $825 in 1908 (the price fell every year) that by the 1920s, a majority of American drivers had learned to drive on the Model T.

Ford's most successful aircraft was the Ford 4AT Trimotor — called the “Tin Goose” because of its corrugated metal construction. It used a new alloy called Alclad that combined the corrosion resistance of aluminium with the strength of duralumin. The plane was similar to Fokker's V.VII-3m, and some say that Ford's engineers surreptitiously measured the Fokker plane and then copied it. The Trimotor first flew on June 11, 1926, and was the first successful U.S. passenger airliner, accommodating about 12 passengers in a rather uncomfortable fashion. Several variants were also used by the U.S. Army. Henry Ford has been honoured by the Smithsonian Institution for changing the aviation industry.

Henry Ford long had an interest in materials science and engineering. He enthusiastically described his company's adoption of vanadium steel alloys and subsequent metallurgic R&D work.

Ford long had an interest in plastics developed from agricultural products, especially soybeans. He cultivated a relationship with George Washington Carver for this purpose. Soy-

bean-based plastics were used in Ford automobiles throughout the 1930s in plastic parts such as car horns, in paint, etc. This project culminated in 1942, when Ford patented an automobile made almost entirely of plastic, attached to a tubular welded frame. It weighed 30% less than a steel car and was said to be able to withstand blows ten times greater than could steel. Furthermore, it ran on grain alcohol (ethanol) instead of gasoline. The design never caught on.

Ford was interested in engineered woods ("Better wood can be made than is grown") (at this time plywood and particle board were little more than experimental ideas); corn as a fuel source, via both corn oil and ethanol; and the potential uses of cotton. Ford was instrumental in developing charcoal briquettes, under the brand name "Kingsford". His brother in law, E.G. Kingsford, used wood scraps from the Ford factory to make the briquettes. Ford was a prolific inventor and was awarded 161 U.S. patents.

II. Answer the questions:

1) What company was founded by Henry Ford?
2) What revolutionary car did he introduce?
3) How do you understand the term “Fordism”?
4) What other spheres was Ford interested in?
5) What contribution into materials science did he make?
6) Do you know any other American motor companies?

III. True or false:

1) Henry Ford was a great American inventor.
2) He had nothing to do with aircrafts.
3) Besides being an inventor, Ford was also a talented businessman.
4) His Model T had a steering wheel on the right.
5) Ford was never interested in agriculture.

IV. Fill in the gaps:
1) Workers are on a strike because of low … .
2) His book was greatly criticized and became a source of … .
3) Spoons and forks made from … are light but rather harmful.
4) We're running out of … . We've got to go to a petrol station.
5) Alclad is an … used by Ford for his 'Tin Goose'.
6) Stainless … is used to produce lots of goods.

LEXICAL EXERCISES

I. Make up expressions with the given new words:
to invent, patent, fuel, alloy, prominent, prolific, wages, controversy, tin, corrosion.

II. Word building. Fill in the gaps in the table below:

Nouns	Verbs	Adjectives	Adverbs
industrialist	…	…	…
…	to revolutionize	…	…
…		…	…
consumerism	to own	…	…
…	…	low	…
…	…	…	permanently
…	…	controversial	…
…	…	…	…
…	to steer	…	enthusiastically
metal	…	…	…
…	…	agricultural	…

III. Find out words synonymous to:
prominent, rich, cost, constantly, horticulture, strong, to fix, to cope with, moreover, petrol, timber, via.

IV. Find out words antonymous to:

war, unknown, misery, on the right, fragile, minor, weakness, more.

V. Translate the following expressions and use them in your own situations:
prominent personality, global vision, key to success, to lower costs, major cities, metal alloy, corrosion resistant, passenger airline, aviation industry, prolific inventor.

GRAMMAR EXERCISES

I. Identify the following verb forms:
became, had, including, was known, has been a source, were cast, to repair, had learned, has been honoured, for changing, developed, caught.

II. Make the following sentences negative:
1) His introduction of the Model T automobile revolutionized transportation and American industry.
2) Ford had a global vision, with consumerism as the key to peace.
3) Ford left most of his vast wealth to the Ford Foundation but arranged for his family to control the company permanently.
4) The entire engine and transmission were enclosed.
5) It ran on grain alcohol instead of gasoline.

III. Make up questions:
1) Soybean-based plastics were used in Ford automobiles throughout the 1930s.
2) The Trimotor first flew on June 11, 1926.
3) His brother in law used wood scraps from the Ford factory to make the briquettes.

IV. Fill in the gaps:

1) Ford is considered one of the … (prolific) designers in the world.
2) I guess this idea is … (good) than that one.
3) I think it's the … (bad) design I've ever seen!
4) I'm sure it's the … (fast) car in the world.
5) Your car is definitely … (fast) than his. No wonder, his car is on its last legs.
6) The sketch is much … (good) than the previous one!
7) The more, the … (good).
8) The last, but not the … (little).

DISCUSSION

I. Work in pairs and discuss the following topics:

a) Ford's Key to Success.
b) Great American Inventors.
c) How to Become a Successful Businessman.

II. Prepare a report about other American inventors.

ADDITIONAL TASKS

Read articles about modern Ford cars and decide which one is the best for you:

http://www.ford.com/cars/focus/2012/features/
http://www.ford.com/cars/fiesta/features/
http://www.ford.com/cars/fusion/features/

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26. URL:http://www.ford.com/cars/fiesta/features/

Учебное издание

Халиуллина Диля Альфредовна
English for Industrial Designers
Учебно-методическое пособие

Компьютерный набор и верстка: Д.А.Халиуллина, О.А.Рудницкая

Напечатано в авторской редакции с оригинал-макета заказчика

Подписано в печать 04.04.11.
Печать офсетная. Формат 60x84 1/16.
Усл. печ. л. 7,61. Уч-изд. л. 7,5.
Тираж 30 экз. Заказ № …..

Издательство «Удмуртский университет»
426034, Ижевск, Университетская, 1, корп.4