

# AGRICULTURE OF FUTURE

# "AGRICULTURE OF FUTURE" TECHNOLOGY OF TEACHING AT THE PRACTICAL LESSON

<b>NUMBER OF STUDENTS: NO MORE THAN 15</b>	<b>TIME OF THE LESSON: 2 HOURS</b>
<b>FORM OF THE LESSON</b>	<b>PRACTICAL WITH ELEMENTS OF RESEARCH AND ANALYZE</b>
<b>PLAN OF THE LESSON</b>	<ol style="list-style-type: none"><li><b>1. PRESENTATION OF THE LESSON PLAN: DEFINITION OF THE SUBJECT AIMS AND EXPECTED RESULTS OF THE STUDENT'S ACTIVITY.</b></li><li><b>2. CHECKING OF HOME TASK (GRAMMAR EXERCISES AND REPORTS)</b></li><li><b>3. STUDY THE TEXT "AGRICULTURE OF FUTURE".</b></li><li><b>4. DISCUSS MEANING OF NEW WORDS.</b></li></ol>
<b>PURPOSE OF THE LESSON</b>	<ol style="list-style-type: none"><li><b>1. CONTRIBUTE TO KNOWLEDGE OF STUDENTS ABOUT "AGRICULTURE OF FUTURE".</b></li><li><b>2. ASSIST THE STUDENTS IN MAKING A CHOICE OF FURTHER POST-GRADUATE STUDY.</b></li><li><b>3. DEVELOP STUDENTS ANALYTICAL SKILLS AND ABILITIES TO MAKE RESEARCH.</b></li></ol>
<b>PEDAGOGICAL TASKS:</b> - <b>DISCUSS THE BEFOREHAND GIVEN TASKS OF MAKING RESEARCH OF 'AGRICULTURE OF FUTURE'</b> - <b>MAKE STUDENTS WORK WITH TEXT VOCABULARY, MATCH APPROPRIATE MEANINGS OF NEW WORDS</b> - <b>DIRECT STUDENTS IN LEARNING THE HANDOUT MATERIALS.</b> - <b>GIVE THE TASK TO ANALYZE AND EXPRESS</b>	<b>RESULTS OF THE STUDENTS ACTIVITY:</b> - <b>COMPREHEND THE TEXT WITH NEW WORDS SO THAT TO BE ABLE TO DISCUSS ITS MAIN ISSUES.</b> - <b>MAKING CONCLUSIONS AND EXPRESS PERSONAL POINT OF VIEW.</b>

<b><i>OWN OPINION - GIVE THE HOME TASK.</i></b>	
<b><i>4. METHODS OF TEACHING 5. FORMS OF TEACHING 6. MEANS OF TEACHING 7. CONDITION OF THE LESSON 8. MONITORING AND MARKS</i></b>	<b><i>VISUAL, SLIDE SHOW, GROUP WORK. TEXT WITH EXERCISES, HANDOUT, DATA TABLES WORKING IN GROUPS. CLASSROOMS, SUFFICIENT NUMBER OF STUDENTS. ORAL CONTROL, MARKING, CORRECTION.</i></b>

# "AGRICULTURE OF FUTURE" TECHNOLOGY OF TEACHING AT THE PRACTICAL LESSON

STEPS, TIME	ACTIVITY	
	PROFESSOR	STUDENTS
<b>1. INTRODUCTION IN TO STUDYING PROCESS (5-10 MIN)</b>	<b>1.1. PRESENTATION OF THE SUBJECT AND MAIN PURPOSE OF THE LESSON</b> <b>1.2. FORMING OF LANGUAGE ATMOSPHERE IN CONNECTION WITH THE ACTUALITY OF THE PRESENT LESSON'S SUBJECT.</b> <b>1.3. PRESENTATION OF THE LESSON PLAN AND THE MARKING SYSTEM.</b>	<b>1.1. LISTEN, ASK QUESTIONS, EXCHANGE OPINIONS.</b> <b>1.2. ORAL SPEECH TRAINING.</b> <b>1.3. TAKING FEEDBACK.</b>
<b>2. ACTUALIZATION OF KNOWLEDGE (10-15 MIN)</b>	<b>2.1. CHECKING HOMEWORK CONCERNED WITH PRESENT LESSON'S SUBJECT</b> <b>2.2. PRESENTATION OF NEW WORDS CONCERNING THE SUBJECT.</b> <b>2.3. CHECKING OF STUDENT'S VOCABULARY ON THE GIVEN TEXT BY DOING EXERCISES.</b>	<b>2.1. REPORT HOME TASKS</b> <b>2.2. FIND OUT NEW WORDS MEANING</b> <b>2.3. EXCHANGE OPINIONS.</b> <b>2.4. LISTEN, WRITE.</b> <b>2.5. SHOW KNOWLEDGE.</b>
<b>3. THE MAIN PART (55-60 MIN)</b>	<b>3.1. EXPLAINING AND SHOWING THE STRUCTURE OF 'AGRICULTURE OF FUTURE'.</b> <b>3.2. GIVING HANDOUT MATERIALS TO MAKE A VISUAL RESEARCH</b> <b>3.3. DIVIDING THE GROUP INTO SUBGROUPS TO ACHIEVE THE BRAINSTORMING EFFECT.</b>	<b>3.1. FULFILL TASKS.</b> <b>3.2. READ, TRANSLATE, ANALYZE AND COMMUNICATE.</b> <b>3.3. LISTEN, READ, DO SOME EXERCISES.</b> <b>3.4. PERSONAL CONCLUSIONS AND PRESENTATION OF THEIR ACTIVITY.</b>
<b>4. CONCLUSION (10-15 MIN)</b>	<b>4.1. RESUME THE RESULTS.</b> <b>4.2. EVALUATE STUDENTS' ACTIVITY.</b>	<b>4.1. LISTEN, WRITE.</b> <b>4.2. ASK QUESTIONS</b>

# WHAT IS THE AGRICULTURE?

AGRICULTURE  
IS THE PROCESS OF  
PRODUCING FOOD, FEED,  
FIBER AND OTHER GOODS BY  
THE SYSTEMATIC RAISING OF  
PLANTS AND ANIMALS.



# AGRICULTURAL MACHINES



AIRPLANES, HELICOPTERS, TRUCKS  
AND TRACTORS ARE USED IN  
WESTERN AGRICULTURE FOR  
SEEDING, SPRAYING OPERATIONS FOR  
INSECT AND DISEASE CONTROL,  
AERIAL TOPDRESSING AND  
TRANSPORTING PERISHABLE  
PRODUCTS.



# SOIL

Soil conservation and nutrient management have been important concerns since the 1950s, with the best farmers taking a stewardship role with the land they operate.



**ENVIRONMENTAL  
PROBLEMS.  
SOME OF THE  
NEGATIVE  
EFFECTS**

SURPLUS OF  
NITROGEN AND  
PHOSPHORUS IN  
RIVERS AND LAKES



# ENVIRONMENTAL PROBLEMS. SOME OF THE NEGATIVE EFFECTS

- Detrimental effects of herbicides, fungicides, insecticides, and other biocides
- Conversion of natural ecosystems of all types into arable land
- Consolidation of diverse biomass into a few species
- Soil erosion
- Depletion of minerals in the soil

# *ENVIRONMENTAL PROBLEMS. SOME OF THE NEGATIVE EFFECTS*

- ◉ Particulate matter, including ammonia and ammonium off-gasing from animal waste contributing to air pollution
- ◉ Weeds - feral plants and animals
- ◉ Odor from agricultural waste
- ◉ Soil salination
- ◉ Agriculture is cited as a significant adverse impact to biodiversity in many nations' Biodiversity Action Plans, due to reduction of forests and other habitats when new lands are converted to farming.

# Policy

- ◉ Food safety: Ensuring that the food supply is free of contamination.
- ◉ Food security: Ensuring that the food supply meets the population's needs.
- ◉ Food quality: Ensuring that the food supply is of a consistent and known quality.
- ◉ Conservation
- ◉ Environmental impact
- ◉ Economic stability



# AGRONOMIST'S TASKS

AGRONOMISTS STUDY WAYS TO MAKE SOILS MORE PRODUCTIVE. THEY CLASSIFY SOILS AND TEST THEM TO DETERMINE WHETHER THEY CONTAIN SUBSTANCES VITAL TO PLANT GROWTH. SUCH NUTRITIONAL SUBSTANCES INCLUDE COMPOUNDS OF NITROGEN, PHOSPHORUS, AND POTASSIUM.

# AGRONOMIST'S TASKS

IF CERTAIN SOIL IS DEFICIENT IN THESE SUBSTANCES, FERTILIZERS MAY PROVIDE THEM. AGRONOMISTS INVESTIGATE THE MOVEMENT OF NUTRIENTS THROUGH THE SOIL, AND THE AMOUNT OF NUTRIENTS ABSORBED BY A PLANT'S ROOTS. AGRONOMISTS ALSO EXAMINE THE DEVELOPMENT OF THE ROOTS AND THEIR RELATION TO THE SOIL.