

# A matter of, motherland





Dreams give courage for the future. Issues are shaped by solutions. We decided to solve our homeland issue with the courage we got from our dreams.

We have designed a future design in which people and nature will win together, and we have given the leading role to children and young people in this setup.

We want to discover our young talents who do not fit into their container, have unlimited imagination, follow their dreams to change the world, believe in themselves and their ideas, and blend their inspiration with the power of the past and future.

Because we believe that they have the ideas that will save the world.

# My mind is on a piece of Soil

Miracles are hidden in a piece of soil. It takes hearts that trust their dreams to discover these miracles.

Here, ATA (Smart Agriculture Workshops) offer you this opportunity.

All you have to do is combine your imagination with your entrepreneurial spirit!

Spart Agriculture Workshops will be there for you to do this.

We need entrepreneurial children and youth who will produce quality products with advanced technology, integrate technology into agricultural production and develop national agricultural technologies.



#### Who Do We Teach With?

Our staff consists of enthusiastic, experienced, well-equipped educators who follow technology very closely.

We carry out "Trainer Training" for these educators and their trainers who have the appropriate competencies of the relevant institutions.

The trainers who will give the workshop lessons are entitled to give training by getting a certificate at the end of these trainings.

In our student-centered classes, we aim for our children and young people to discover with excitement and learn while having fun.



#### What awaits Students?

Special quality tools for our curious inventors!

Valuable information to be learned from agricultural knowledge, including the most advanced technology, accompanied by competent professionals!

Workshops where they will improve themselves by experiencing their new inventions!

In ATA (Smart Agriculture Workshops), we offer our students an integrated education system, where they can experience both theoretically and practically, and travel to their dreams of the future with our comprehensive curriculum.







We combined agriculture and technology under one roof.

We built a 360-degree design from training areas to materials and application processes. We divided the education curriculum named

"Seed, Sapling and Forest" into two categories as agriculture and technology.

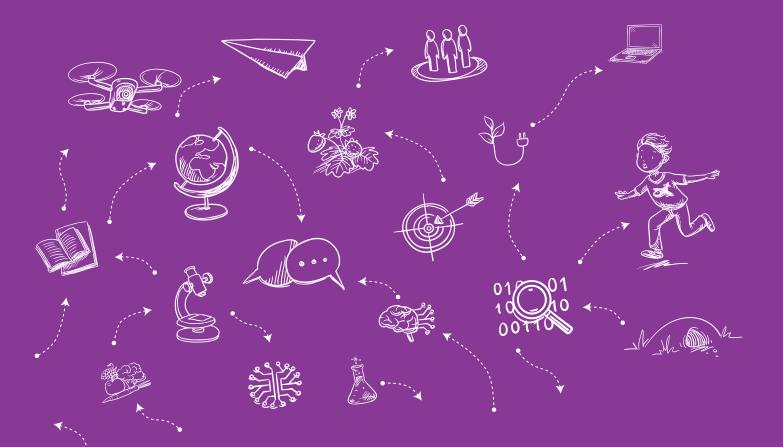
We have prepared the curriculum contents of the ATA (Smart Agriculture Workshops) with our expert trainers.

Our trainings consist of a total of 24 workshops as theoretical and practical applications.

Innovative ideas of our students will turn into seeds with our educational processes that feed on the idea that you can do it.

The journey of these seeds will first come to life as a sapling, then a tree, and eventually together as a huge forest.





# Workshops designing the future

Our Education System gives its students 21st century skills!

ATA (Smart Agriculture Workshop raise the individuals of the future with the education system of the future! Our workshops prepare unique indi viduals with a student-centered education model, who can think innova tively, be based on scientific principles, think critically, collaborate while working, produce technology, collect and interpret data, are skilled in digital literacy, and transform ideas into design, design into prototypes, and prototypes into products.





# CULTUICI HOIS DODS Seed Level



## l'm Learning Agriculture

In this workshop, our students will go on the historical journey of agriculture, which is our 12,000-year-old heritage. They will have the opportunity to examine the process from traditional agriculture to innovative agriculture from the perspective of Agriculture 4.0.

They will embark on a pleasant journey of a sustainable world while discovering agricultural methods and smart agriculture through various events.

## Why Do We Practice Agriculture?

Agriculture means life. It is a miracle that ensures the continuity of life. Agriculture is not just the food that comes to our table, it is the complement of nature and the ecosystem we live in.

In the ATA (Smart Agriculture Workshops), students will meet the story of many agricultural productions from seeds to fabrics, from trees to furniture, and they will discover what they can do in a world that adapts to the ecological cycle, and realize the miraculous value of agriculture.



#### Factors Affecting Agriculture

Earth is a mysterious world that contains thousands of hidden elements. The balance of this world makes nature and human life sustainable. The amount of water, air and organic matter for the elements in the soil is also very valuable for agriculture.

# Let's Get to know the Plants

If plants were to surround the earth from the outside, the earth would look like a green ball and fragrant scents would spread everywhere. This is perhaps the time to meet plants of millions of varieties!

Our students will meet the special endemic plants in our country and those

ordinary-looking but essentially priceless plants that they see around us all the time but never had the opportunity to meet.

From the moment the plants meet with the soil, they will have the opportunity to closely witness the unique development processes that opened up to the earth.



## Our Minds Are on a Piece of Soil

There is life in the soil. More creatures live in a handful of soil than any human that has ever lived on earth. The continuation of this ecosystem means the continuation of our lives.

In this workshop, we will learn what happens in the unique world of the soil, how it comes into existence, what types of soil exist, what the

plant-specific soil type means and why soil is important in agriculture. Our production adventure will begin with touching the soil and getting to know it.

# Plant Nutrition Technologies

How will we feed the plants while the plants feed us? Plant Nutrition Technologies Workshop will give us the answer and take us on an adventure in the life journey of the ecosystem.

What the plants live, how they are formed, grow, what they are fed until they come to our table... They will observe all of them in the life flow of the plant, get to know digital solutions where agriculture meets technology and establish a connection between life and nature.

# Harvest Time

Can you imagine that a vegetable or fruit you always buy from the market comes to your table with your own production? You can be sure you won't find the taste anywhere! Now is the time to produce!

In the "harvest time" workshop, our students will get acquainted with the concepts of harvest and threshing, obtain crops with their own efforts, learn about the methods of harvesting, technologies developed according to the harvest criteria, and collect the fruits and vegetables of their own production from the branch.

# Plant Protection

How do we protect plants? Do they need protection? Of course there do. These include many internal and external factors. Like animal organisms? Yes, we must protect animals and plants. All living things in the world must live without harming each other and protect each other.

The "Plant Protection" workshop will teach our students how to protect plants from pests, weeds and diseases by experiencing them with activities.



#### Fertilization

A healthy soil means a healthy food and a healthy life. In other words, everything starts with the right fertilization according to the needs of the soil. Soil must be of good quality. Soil must be of good quality. It is possible not to be polluted with wastes, by being sensitive to the environment through recycling, and by taking good care of the soil that heals, nourishes and keeps us alive, which is our food coming from the soil.

In this workshop, they will understand the importance of cooperating for healthy soil and healthy food by participating in the recycling cycle.



## Ancestor Seed

Who wouldn't be curious about the adventure of a tiny seed turning into a big tree in the world? This is a long and difficult journey. It takes patience and effort.

The mysterious properties of seeds will be discovered in this micro world, opened to seed breeding from our centuries-old ancestor seed, and the development process of all plants with their unique and unique beauties will be revealed.



#### Meteorological Stations

If you follow nature's clues, you can solve its puzzle!

To solve this puzzle, you need to know it well and be able to feel every emotion.

I think it's a little sad today, do you think tears will flow from the clouds?

Today it is very happy, look, it is smiling brightly!

So how can you improve your ability to predict weather and weather sentiment?

In this workshop, our students will learn and experience how to become experts in controlling daily weather conditions, their effects on crops and conditions according to the criteria of our plants, and how to benefit from meteorological stations.

#### Greenhouse and Greenhouse Automation Systems

Energy, which we know as the power to change objects, defines a power that nature and humans need to survive.

Every living thing needs endless energy to survive. Infinite, because where energy ends, life cannot be spoken of.

In this workshop where the relationship between agriculture and energy will be questioned, the participants will travel to the world of energy full of secrets. In this workshop, the participant will learn what energy is, how it is formed, what kind of energy exists, what it means to produce energy and why energy is important in agriculture.







÷







JAL (



# Technology WorkshopS

Seed Level



Engineering, physics and technology are in every aspect of our lives. The attraction point of all of them is electronics science. To decipher life's codes, you have to know it.

In Basic Electronics education, students who will take part in applied projects as well as theoretical education will learn the working principle of electronic circuit elements and discover the secrets of electricity.

# Signals and Sensors

The concepts of analog and digital may seem unfamiliar to you now. However, with the "Signals and Sensors Workshop", our students will first turn into experts who have mastery of all aspects of foreign concepts.

They will be able to use tools and programs such as pwm, resistor, led, jumper cable, Arduino Uno, work on systems such as led brightness control, strobe application, and develop prototype products in lighting systems. "Signals and Sensors" will now their expertise!



# Lighting and Engines

Our students will be able to bring together circuit elements / software supported hardware programming tools and create their own designs. Thanks to the hardware programs, they will be able to use the power of the light according to the colors and design the interactive projects he has designed in his own imagination. In this workshop we are pushing the limits of imagination using Arduino!

# **Robotics** - I

How is circuit control provided according to temperature? How to make maximum use of natural heat and light sources? What about using robotic and coding technologies and measuring the amazing effect of air and seeing the right results?

In the "Robotic-I" workshop, where our students will not be able to get enough of learning, they will learn to use technologies that provide the importance and control of temperature in agricultural production.



#### Agricultural Technologies-I

How to control and balance soil and moisture? In this workshop, our students will learn how to operate more efficient and more economical systems with advanced robotic technologies.

They will be able to produce automatic irrigation systems, balance-control these mechanisms and control the equipment in digital environment.

#### Agricultural Technologies-II

We benefit from robotic knowledge in the agricultural field! They will witness the growth stages of plants with a digital perspective and integrate robotic technology into sustainable agricultural practices. In our Agricultural Technologies-II workshop, they will develop systems that can detect the rain without going out and use it efficiently.



#### Artificial Intelligence and Machine Learning

Human needs are unlimited and resources are limited. In our workshops, we teach how to respond to needs with limited resources with innovative applications in technology.

With the machine learning model, we will gain a different perspective in agricultural production and explore the logic of exciting artificial intelligence applications.

# Smart Greenhouse

In order to adapt to seasonal conditions, you need to be able to get along well with the greenhouse system. Our students, who are active in every field, will be able to apply smart greenhouse automations and plant protection systems at the right dose at the right time for maximum efficiency in agriculture.

## **Robotics-II**

The size of the wheels, the power of the engine, the speed of rotation adventure is a job for those who are full of excitement in exploration. Processing and experiencing it with your own hands is the most enjoyable part of this learning adventure.

Our students will set out on the journey of mechatronics and electricity in agricultural productivity, and will perform soldering applications themselves on the tool creation kit, which combines mechanical and electronic sciences in robotic technologies



#### Agricultural Technologies-III

Are you ready to step into the fascinating world of 3D design?In this workshop, they will learn the working principle of 3D, the technology of the future, and will enjoy designing and producing! Most importantly, they will regenerate the soil by participating in the recycling cycle of waste.



# Internet of Things

Access to climate data in any city in the world? Now technology has crossed beyond borders.

In this workshop, you will be able to access the climate data you want by using cloud technology, without the need for any sensors, by coding with blocks.

By connecting puppets and devices, our students will explore the world from where they sit, by developing various warning systems and digital gamification activities with IOT.

## Design and Production

Design your own prototype project by producing with your dreams!

In this workshop, our students will establish their team with strategic technologies in modern agriculture and learn to produce innovative works in cooperation!

**Does ATA** consist of a few circuits, a few seeds and a piece of paper and pencil?

888

0' 1 ( 0 (



#### Of course not!

Smart Agriculture Workshops have an integrated education concept.

We are based on an end-to-end education, from students' material sets to software programs, from experience areas to prototyping processes.

In ATA (Smart Agriculture Workshops), a process that continues with the return of theoretical knowledge to practice and even the implementation of the project is handled.

All products are included in a kit, from digital soil analysis to the microscope through which we examine the soil, and the seed planting robot developed with robotic technologies.

While adopting an innovative agricultural perspective as a principle, we make the pleasure of design and production unlimited for students with prototype products controlled by hydroponics, 3D printers, automation systems.

Efficiency from the workshops is always at the maximum level, each with high quality, useful and compatible materials.



#### How can I join ATA (Smart Agriculture Workshops)?

Any institution with the appropriate level of our curriculum and program, infrastructure and staff can participate in the ATA (Smart Agriculture Workshops). You can contact us by filling out the form on our website as an educational institution. We will get back to you as soon as possible.



Can individual applications be made to ATA (Smart Agriculture Workshops)?

#### Do you have online/ distance training?

Unfortunately, we cannot accept individual applications to our workshops. However, you can follow our online trainings on our website atadukkan.com.



## What are trainers' trainings?

## Can I attend trainers' trainings?

Our trainers, who have the necessary competencies in the institutions where we set up workshops, receive trainer trainings within the scope of our curriculum.



#### Are ATA (Smart Agriculture Workshops) paid?

Smart Agriculture Workshops is a social enterprise. It was implemented in our country to develop national agricultural technologies and to raise awareness of agriculture. The project has unique educational materials, special kits and application laboratories. Therefore, there is a fee in the institutions where it will be implemented.



Our Training Centers

We Turn Dreams into Actionable Realities! We believe that original ideas and young minds will save the world! Our training centers have been specially designed so that our students can develop themselves by producing one-to-one.

Our training areas have been carefully prepared as places that can be transformed into products with different concepts, knowledge and imagination, where designs and prototypes can be used, and where the results will be realized with advanced applications.

We offered our students an aesthetic environment with architectural designs, nature-friendly, comprehensive agriculture and technology development products toaccompany their journey of discovery.

We implemented our digital workshops with the latest technology and modern equipment.

We have created a unique environment with circuit development products, additive production technologies and soilless farming systems.

In ATA (Smart Agriculture Workshops), there is an active, learner-centered classroom environment in each workshop.

We offer a project-based education model with activities and practices accompanying the discovery of the agricultural story from farm to table.

Together with the new generation of children and youth, who are integrated with soil and seeds, respectful to nature, who believe in the technology-based miracles of production, we will sow the seeds with digital technologies by breathing the soil, and together we will raise our new inventors in an environment where labor and love are blended with technology.

#### **Educational Institutions**

Upon the request of our educational institutions, we make installations if infrastructure and educational staff of the institution are sufficient. For now, our pilot implementations continue in Ankara and Burdur provinces.



#### **Science Centers**

Upon the request of our science centers where thematic trainings can be given, wehave designed our curriculum for science centers. Our installations continue in Erzurum and Gaziantep provinces.





#### Libraries

New generation libraries now have Smart Agriculture Workshops and our products..





#### **Camp Model**

We held Turkey's first Smart Agriculture Camp in Osmaniye Youth Camp belonging to the Ministry of Youth and Sports.



# FIRST IN THE MORIDE

#### Agricultural Technologies Board Game

We are waiting for you to the platform where our board games, products, online training and kits we have developed as ATA Shop, ATA (Smart Agriculture Workshops).

Agricultural Technologies Board Game

For more info: atadukkan.com



#### Leader Farmer Agricultural Technologies Board Game

With Leader Farmer, the world's first Agricultural Technologies Board Game we prepared as part of the ATA Project, you will learn by having fun and get lost in the interesting world of agriculture and technology!



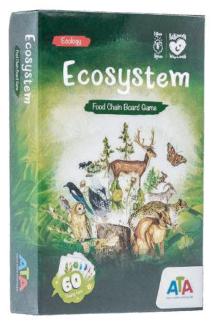


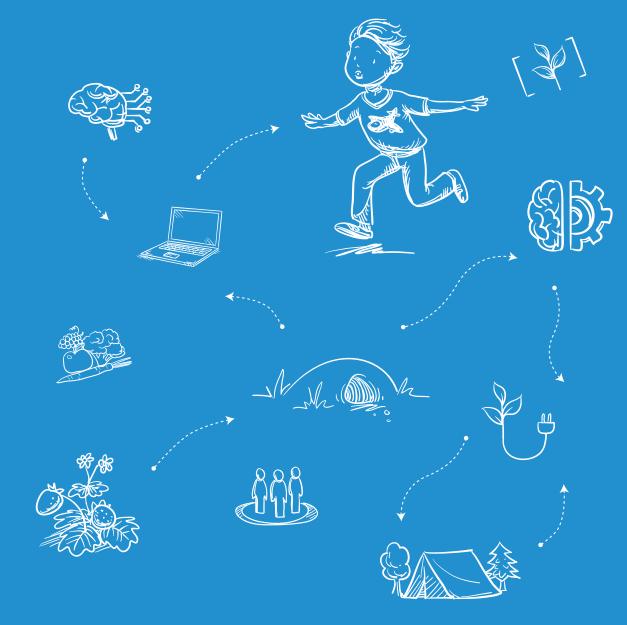
#### Agricultural Technologies Activity Book

We have prepared Turkey's first Agricultural Technologies Activity Book, developed for children aged 4 and above, specially for our children with the theme of "Read, Paint, Code" and educational activities.

#### Ecosystem Food Chain Board Game

The Ecosystem Food Chain allows players to distinguish between living and non-living things and discover the basic needs of living things. We have specially designed it for explorers who internalize the love and protection of nature to grow up as individuals sensitive to theirenvironment and perceiving the whole.







SMART AGRICULTURE WORKSHOPS



bilgi@usturlab.com.tr
0542 206 1009
usturlab.com.tr
Istanbul/ Turkey