



Session Plan

Schools of Specialized Excellence
Delhi Board of School Education



Session Plan
Solar Energy and Drone Technology

Teacher Name		Target Grade	10	Curriculum Component	Applied Learning Module
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Module Title	Introduction to Solar Energy System		
Week Title	Solar Energy and Drone Technology	Week Number	
Important Concepts	<ul style="list-style-type: none">- Introduction to Solar Energy-Types of Solar Energy System- Application of Solar Energy		

Learning Standards	
1. Explain the Basic Introduction to the Solar Energy System.	2. List out the Applications of Solar Energy in our Day-To-Day Life.
3. Describe the Types of Solar Energy Systems & their Significance.	

Inquiry Questions	
1. List out the Appliances that work under Solar Energy.	2. Identify the 3 Reasons Why we should use Solar Energy?

Classroom Inquiry Process	
Day 1: Introduction to Solar Energy	Lesson Aims <ul style="list-style-type: none">1. Explain the Basic Introduction to the Solar Energy System.2. Describe the Types of Solar Energy Systems & their Significance.3. List the Applications of Solar Energy in our Day-To-Day Life4. Activity – To Demonstrate the Working of Residential Solar Power System Activity Title: <ul style="list-style-type: none">1. Ice-breaking on Solar Energy System (10 Mins)2. Introduction to Solar Energy System (10 Mins)3. Types of Solar Energy System (30 Mins)4. Applications of Solar Energy System (20 Mins)5. Activity - To Demonstrate the Working of a Residential Solar Power System (30 Mins)6. Doubt Clarification / Q & A Session (10 Mins)

7. Instructions for taking Home Assignment (10 Mins) (Individual)

Activity Description:

1. **Ice-breaking on Solar Energy System:** At the beginning, show them the Video and Summarize the Scope Installation Cost, Benefits & Government Initiatives towards Solar Energy system to the students.

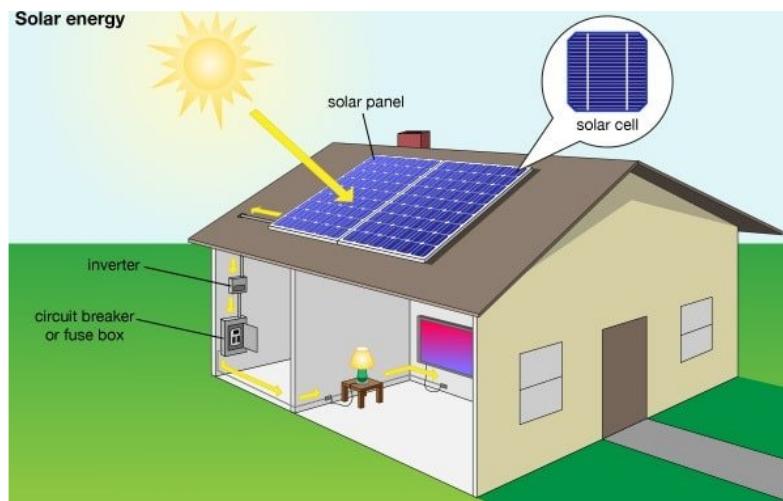
Video: <https://www.youtube.com/watch?v=Fw1SQSek5rk>

2. Introduction to Solar Energy System:

A solar power plant is an arrangement of various solar components, including a solar panel to absorb and convert sunlight into electricity, a solar inverter to convert the electricity from DC to AC while also monitoring the system, solar batteries, and other solar accessories to set up a working system.

The main concern of a solar power plant is to provide complete energy independence while also lowering your electricity costs. It includes both small and large-capacity solar systems ranging from 1kW to megawatts.

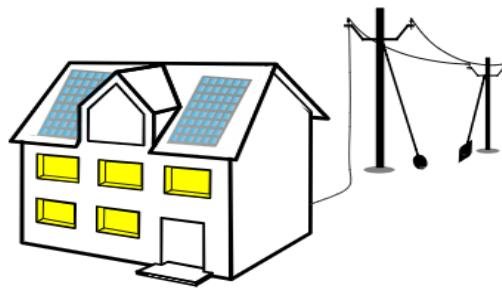
The sun's energy can be converted into electricity through solar photovoltaic (PV) modules (photo = light, voltaic = electricity).



3. Types of Solar Energy System:

- **On-Grid Solar Energy System:**

- On-grid or grid-tied solar system is a system that works along with the grid. If any excess or deficiency of power can be fed to the grid through net metering.
- Many residential users are opting for an On-grid solar system as they get a chance to enjoy credit for the excess power their system produces and save on their electricity bills.



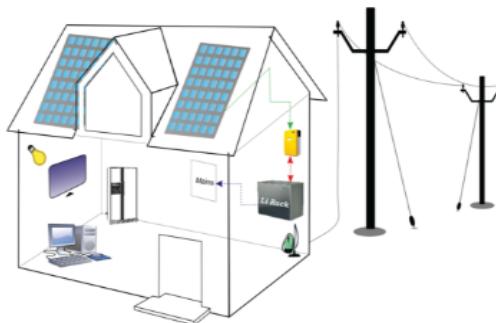
- **Off-Grid Solar Energy System:**

- An off-grid solar system always provides electricity. It requires battery storage and an inverter.
- The addition of an inverter allows the system to convert DC (Direct Current) coming from the batteries into AC (Alternating Current).



- **Hybrid Solar Energy System:**

- A hybrid system is when your solar panels remain connected to the grid's power lines and have a backup battery system to store excess power.
- The sun's energy absorbed by the solar panels goes through an inverter to create usable electricity. From there, electricity goes to your home, your battery, or the grid.



- 4. Applications of Solar Energy System:

- **Solar Water Heating**

- Solar water heating is becoming an eco-friendly alternative to traditional water heaters. Solar water heaters are commonly used in hotels, hospitals, and guest houses.



- **Solar Distillation**

- Solar-distillation method requires ample sunlight to transform saline water into distilled water. Once the solar radiation turns into heat, it creates purified water for cooling purposes.



● Solar Electric Power Generation

- Photovoltaic (PV) cells generate electricity through direct sunlight. There are various electrical benefits to using solar power generation, such as reliability, low maintenance costs, durability, and eco-friendly.
- Solar electric power generation is most beneficial for irrigation, commercial-grid power systems, and public transportation.



5. Activity - To Demonstrate the Working of Residential Solar Power System- Refer to the Activity Sheet & Demonstrate.

Video: <https://www.youtube.com/watch?v=lljwBtYfIAI>

6. Doubt Clarification /Q & A Session- Do the Learning check using these Prompt Questions:

- Mention the Differences between On-Grid & Off-Grid Solar Energy Systems?
- Explain the Benefits of Using Solar Energy in our Home.

7. Take-Home Assignment:

Make a Page Learning Report on the Advantages & Disadvantages of Solar Energy.

Watch This Video: <https://www.youtube.com/watch?v=DOKSEVNPHQI>



	References: Watch This Video: https://www.youtube.com/watch?v=k6veDQ6nWUQ&t=2s
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Session Plan Solar Energy and Drone Technology

Teacher Name		Target Grade	10	Curriculum Component	Applied Learning Module
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Module Title	Understanding structure of Solar Panel		
Week Title	Solar Energy and Drone Technology	Week Number	
Important Concepts	<ul style="list-style-type: none">- Understanding of Solar Panel Structure- Types of Solar Panels- Installation Procedures of Solar Panel		

Learning Standards	
1.	Explain the Solar Panel Structure.
2.	List out the types of Solar Panel Structures.
3.	Demonstrate the Installation of Solar Panels on any Nearby Premises.
4.	Record the Learnings from the Activity Visits.

Inquiry Questions	
1.	What do you know about the Government Initiatives on Solar Energy?
2.	Name one appliance having Solar Panels used.

Classroom Inquiry Process



**Day 2:
Understan
ding
Structure
of Solar
Panel**

Lesson Aims

1. Explain the Solar Panel Structure.
2. List out the types of Solar Panel Structures.
3. Demonstrate the Installation of Solar Panels on any Nearby Premises.
4. Record the Learnings from the Activity Visits.

Activity Title:

1. **Ice-breaking on Solar Panels (10 Mins)**
2. **Introduction to Solar Panel Structure (10 Mins)**
3. **Types of Solar Panel (10 Mins)**
4. **Installation Procedures of Solar Panel (20 Mins)**
5. **Activity Visits-To any Nearby Premises having Solar Panel Installed (50 Mins)**
6. **Doubt Clarification / Q & A Session (10 Mins)**
7. **Instructions for Taking Home Assignment (10 Mins) (Individual)**

Activity Description:

1. **Ice-breaking on Solar Panels:** At the beginning, show them the Devices using solar panels like Calculator, Street LED Lamps. Also, Show them the Amazing Solar Operated Gadgets.

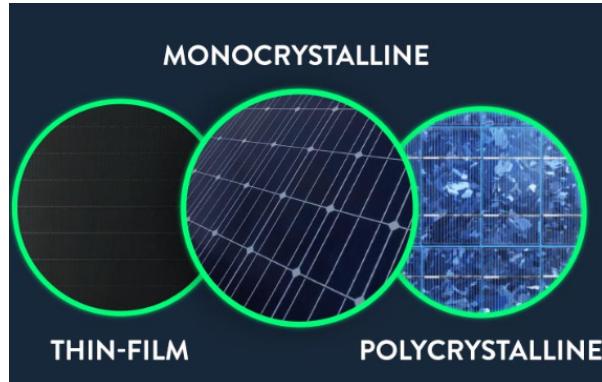
Video: <https://www.youtube.com/watch?v=3NZX9lf0f0U>

2. Introduction to Solar Panel Structure:

- Solar cell panel, solar electric panel, photo-voltaic (PV) module, PV panel or solar panel is an assembly of photovoltaic solar cells mounted in a (usually rectangular) frame, and a neatly organised collection of PV panels is called a photovoltaic system or solar array.
- Solar panels capture sunlight as a source of radiant energy, which is converted into electric energy in the form of direct current (DC) electricity.
- Arrays of a photovoltaic system can be used to generate solar electricity that supplies electrical equipment directly or feeds power back into an alternate current (AC) grid via an inverter system.



3. Types of Solar Panel:



- **Monocrystalline:**

- Monocrystalline Solar Panels are made from single (Mono) crystal (crystalline) silicon solar cells.
- Monocrystalline cells are more expensive, tend to last longer, and have higher efficiencies



- **Polycrystalline:**

- Polycrystalline cells are made from many (Poly) fragments of silicon crystal melted together.

- Polycrystalline solar panels have a lower efficiency and short lifespan.

- Polycrystalline cells can be identified by their blue finish, rectangular shape, and speckles.



- **Thin Film:**

- Thin-film solar panels are thin, flexible, and low in profile. This is because the cells within the panels are roughly 350 times thinner than the crystalline wafers used in monocrystalline and polycrystalline solar panels.
- Thin-film solar panels tend to have lower efficiencies and power capacities compared to crystalline panels.



4. Installation Procedures of Solar Panel:

Step-1: Mount Installation

The first step is to fix the mounts that will support the Solar Panels. It can be Roof-ground mounts or flush mounts, depending on the requirement. This base structure provides support and sturdiness.

Again, the mounting structure must be slightly tilted. The angle of the tilt could be between 18 to 36 Degrees.



Step 2: Install the Solar Panels

Next step is to fix the solar panels with the mounting structure. This is done by tightening nuts and bolts. Care is taken to secure the whole structure properly so that it is sturdy and lasts long.

Step-3: Do Electrical Wiring

Next step is to do the electrical wiring. The panels can be electrically connected in the following series:

1. **Series Connection:** In this case, the Positive (+) Wire of one PV module is connected to the Negative (-) Wire of another module. This type of wiring increases the voltage match with the battery bank.
2. **Parallel Connection:** In this case, Positive (+) to Positive (+) and Negative (-) to Negative (-) connection is done. This type of wiring voltage of each panel remains the same.

Step-4: Connect the System to Solar Inverter

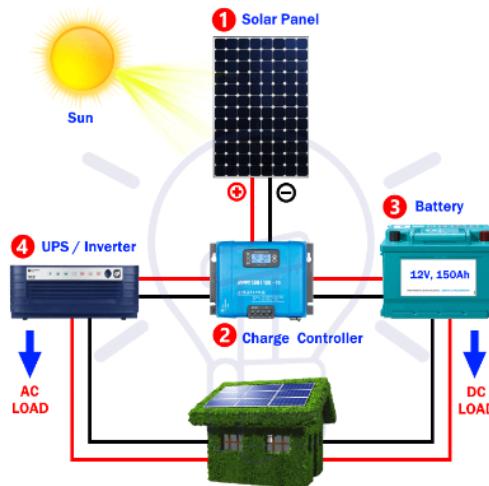
Next step is to connect the system to a solar inverter. The solar inverter is then connected to the Solar Battery and Grid input to produce electricity.

Step-5: Connect Solar Inverter, and Solar Batteries

Next step is to connect the solar inverter and the solar battery. The battery is needed in an off-grid solar system to store electricity backup.

Step: 6: Start Solar Inverter

Now that all the electrical wiring and connections are done, it is time to start the inverter switch ON the Main Switch of the Home. Most solar inverters will have a digital display to show you stats regarding the generation and usage of solar units.



Watch This Video: https://www.youtube.com/watch?v=OGnf_awxJDg

5. Activity Visits-To any Nearby Premises having Solar Panel Installed:

- Visit to any nearby premises having Solar Panel Systems & Record the Learnings like Types of Solar panels used, Components of Solar Energy Systems, and Benefits. (**OR**)
- Show them this Video & List out the steps.

Video: <https://www.youtube.com/watch?v=IB8q20QX6bA>

6. Doubt Clarification /Q & A Session- Do the Learning check using these Prompt Questions:

- Identify the type of Solar Panel used in the Activity Visits.



	<ul style="list-style-type: none">● Explain any one Safety Precautions to be taken While doing Solar Panel Installation. <p>7. Take-Home Assignment:</p> <ul style="list-style-type: none">● Make a one Page Learning Report on How Solar Panels are Made. <p>Watch This Video: https://www.youtube.com/watch?v=alQFVKYLwT0 https://www.youtube.com/watch?v=l-pFukZICOg</p> <p>References</p> <p>Watch this Video: https://www.youtube.com/watch?v=hkT2fvZ9C5g</p>
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Session Plan
Solar Energy and Drone Technology

Teacher Name		Target Grade	10	Curriculum Component	Applied Learning Module

Module Title	Industrial Visit		
Week Title	Solar Energy and Drone Technology	Week Number	
Important Concepts	<ul style="list-style-type: none">- Selection of Solar Panels and Mounting Structure- Safety Precautions to be followed while Installation- Net-Metering		

Learning Standards	
1.	Select / Specify the Solar Panels and their Mounting Structure.

2. Demonstrate the safety Precautions to be followed While Installation.

3. Discuss the Concept of Net-Metering.

Inquiry Questions	
1.	Explain any one Safety Precautions to be taken While installing a Solar Panel at home.

2. List out the Premises having Solar Panels?

Classroom Inquiry Process	
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**Day 3:
Hands-on
activity with
Solar Panel**

Lesson Aims

1. Activity: Select / Specify the Solar Panels and their Mounting Structure.
2. Activity: Demonstrate the safety Precautions to be followed While Installation.
3. Discuss the Concept of Net-Metering.

Activity Title:

1. Briefing on Industrial Visit (20 Mins)
2. Activity: Prepare a checklist needed for an Industrial Visit. (20 Mins)
3. Activity: Identify the Solar Components Connected (20 Mins)
4. Activity: List the Safety Precautions to be followed (20 Mins)
5. Concept of Net-Metering (20 Mins)
6. Doubt Clarification / Q & A Session (10 Mins)
7. Instructions for Taking Home Assignment (10 Mins) (Individual)

Activity Description:

1. Briefing on Industrial Visit:

At the beginning, show them the Video to brief them about Safety Precautions to follow before proceeding to Industrial Visit.

Video: <https://www.youtube.com/watch?v=OPs4MQOIZAQ>

2. Activity: Prepare a checklist needed for an Industrial Visit:

Prepare a checklist needed for an Industrial Visit in your Handouts.

Refer to this Link: <http://www.sunspring.in/trip/checklist.htm>

3. Activity: Identify the Solar Components Connected:

- Identify and List the Solar Components Connected in your Handouts

4. Activity: List the Safety Precautions to be followed:

- Listing Out the Solar Components Connected in your Handouts

5. Concept of Net-Metering:

- Net metering allows residential and commercial customers who generate their electricity from solar power to sell the electricity they aren't using back into the grid.
- Net metering is a billing mechanism that credits solar energy system owners for the electricity they add to the grid.



5. Doubt Clarification /Q & A Session- Do the Learning check using these Prompt Questions:

- Mention the Benefits of Net-Metering?
- Explain any one safety Precaution to be taken while doing this Activity?

6. Take-Home Assignment:

Make a one Page Learning Report on Industrial visits like Organization structure, Industry Safety Standards in your Handouts.

References

Watch This Video: https://www.youtube.com/watch?v=5_IFz7FEZ9E
<https://www.youtube.com/watch?v=7MIIS4DpMcM>

Session Plan Solar Energy and Drone Technology

Teacher Name		Target Grade	10	Curriculum Component	Applied Learning Module
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Module Title	Introduction to Drone Technology		
Week Title	Solar Energy and Drone Technology	Week Number	
Important Concept	<ul style="list-style-type: none">- Introduction to Drone Technology-Rules & Regulations-Working Principle & Components of Drone-Types of Drones-Applications of Drones		

Learning Standards
<ol style="list-style-type: none">1. Explain the basic Introduction to Drone Technology.2. Describe the Working Principles & Components of Drones and their types.3. Interpret the Real-world Applications of Drones.

Inquiry Questions
<ol style="list-style-type: none">1. What do you know about the term "Aerodynamics"?2. List the Applications of Drones in the Medical Field?3. What is the significance of having a Drone Pilot License / Certification?

Classroom Inquiry Process	
Day 4: Introduction to Drone Technology	<p>Lesson Aims</p> <ul style="list-style-type: none">1. Explain the basic Introduction to Drone Technology.2. Describe the Working Principles & Components of Drones and their types.3. Interpret the Real-world Applications of Drones. <p>Activity Title:</p> <ul style="list-style-type: none">1. Ice-breaking on Drones (10 Mins)2. Introduction to Drone Technology (15 Mins)3. Working Principle & Components of Drone (30 Mins)4. Types of Drones (20 Mins)5. Applications of Drones (25 Mins)6. Doubt Clarification / Q & A Session (10 Mins)7. Instructions for taking Home Assignment (10 Mins) (Individual) <p>Activity Description:</p>

1. **Ice-breaking on Drones:** At the beginning, show them the Video of "Bharat Drone Mahotsav" Launched by the Honorable Prime Minister of India & Summarize the Scope of the Students
Videos: <https://www.youtube.com/watch?v=mCs0ZOanyZc>
<https://www.youtube.com/shorts/yXW-IZ17m8o>

2. Introduction to Drone Technology:

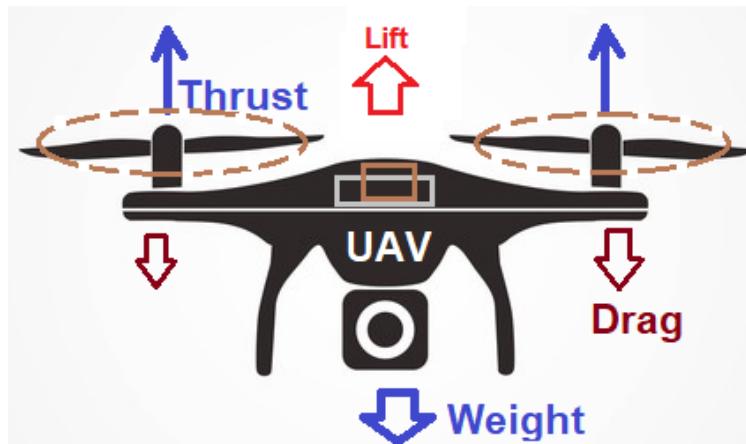
A drone is a flying robot, and in a technological context, it is an unmanned aircraft, also formally known as unmanned aerial vehicles (UAVs) or unmanned aircraft systems (UAS).

Drones can control Remotely or fly autonomously through software-controlled flight plans in their Control systems working in conjunction with onboard sensors and GPS.

The drones are equipped with different state-of-the-art technology such as infrared cameras, GPS, and lasers (consumer, commercial and military UAV). Drones are controlled remotely by using ground control systems (GSC) and are referred to as ground cockpits.



3. Working Principle and Components of Drone:





- Fluid dynamics plays a significant role in the design and development of aircraft and drones. It has a similar working principle to the aerodynamics of aircraft.
- Enough upward force is required to lift the vehicle against gravity which is named Lift.
- Thrust is a force created to move the vehicle or body in motion. These forces can be studied using the kinematic laws of fluid flows

Introduction to Airfoil Technology:

- An **airfoil** (American English) or **aerofoil** (British English) is the cross-sectional shape of an object whose motion through a gas is capable of generating significant lift, such as a wing, a sail, or the blades of a propeller, rotor, or turbine.

Types of Air Foil

Working Principle:

- The lift on an airfoil is primarily the result of its angle of attack. When oriented at a suitable angle, the airfoil deflects the oncoming air (for fixed-wing aircraft, a downward force), resulting in a force on the airfoil in the direction opposite to the deflection.
- This force is known as aerodynamic force and can be resolved into two components: lift and drag.
- Most foil shapes require a positive angle of attack to generate lift, but cambered airfoils can generate lift at zero angles of attack. This "turning" of the air in the vicinity of the airfoil creates curved streamlines, resulting in lower pressure on one side and higher pressure on the other.
- This pressure difference is accompanied by a velocity difference via Bernoulli's principle, so the resulting flowfield about the airfoil has a higher average velocity on the upper surface than on the lower surface.

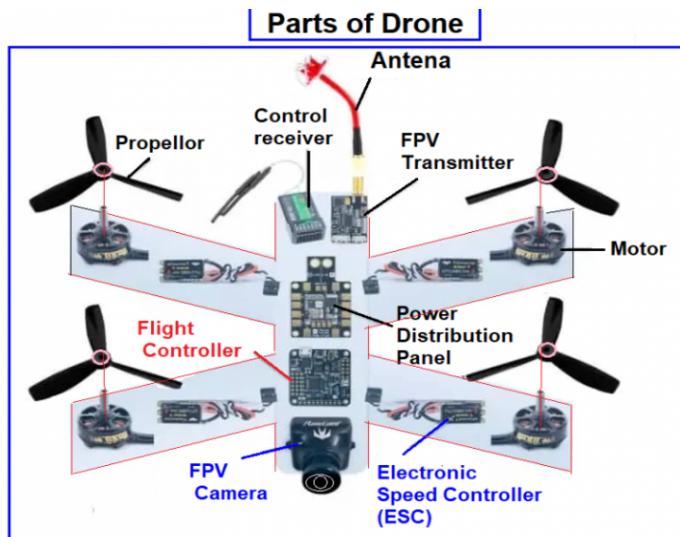
In fluid dynamics, **Bernoulli's principle** states that an increase in the speed of a fluid occurs simultaneously with a decrease in static pressure or a decrease in the fluid's potential energy.

Watch This Video:

<https://www.youtube.com/watch?v=w78JT6azrZU>

Components of Drone:

- **Mechanical Design**
 - a. Rigid body dynamics to study the motion and forces acting on drones
 - b. Strength of materials
 - c. Low-weight and rigid materials are selected for drones
- **Electronics and Electrical Components:**
- d. An electric motor with and without a brush is required to drive the propellers,
- e. Electronic Speed Controller
- f. Flight controller unit and computer processors
- **Radio Communication:** transmitter and receiver for radio signals
- **Battery:** Low weight and high-power wattage battery
- **Software-based interface:** Performs data collection and analysis using mobile or computer



4. Types of Drones:

- Multi-Rotor Drones

These are the easiest and cheapest option for getting an 'eye in the sky.' It also provides greater control over position and framing, and hence they are perfect for aerial photography and surveillance.



- [Fixed-Wing Drones](#)

A fixed-wing drone has one rigid wing that is designed to look and work like an aeroplane, providing lift rather than vertical lift rotors. Hence, this drone type only needs the energy to move forward and not to hold itself in the air. This makes them energy efficient.



- [Single-Rotor Drones](#)

Single-rotor drone types are strong and durable. They look similar to actual helicopters in structure and design. A single rotor has just one rotor, like one big spinning wing, plus a tail rotor to control direction and stability.



- [Fixed-Wing Hybrid VTOL](#)

Hybrid VTOL drone types merge the benefits of fixed-wing and rotor-based designs. This drone type has rotors attached to the fixed wings, allowing it to hover and take off and land vertically.

One example of a fixed-wing hybrid VTOL is Amazon's Prime Air delivery drone.



5. Applications of Drones:

● Aerial Photography & Videography

- It allows for photography of amazing flexibility and scope while for the cinematographer, the ability to do long continuous shots, panning and framing a chosen subject the entire time.



● Firefighting

- Drones provide better access to dangerous areas, enabling firefighters to assess blazes, see through dense smoke and make critical decisions quickly.
- By providing aerial views and 3D maps of land and water masses, UAVs also provide rapid assessments of natural disaster areas to facilitate the deployment of resources by aid agencies.



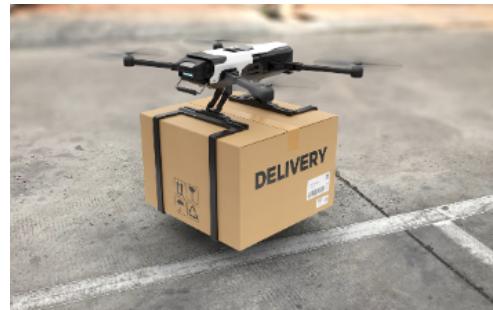
- **Agriculture**

- Crop Spraying, Crop Monitoring, Predict Weather Patterns



- **Product Delivery**

- Drones can be sent up at a much faster rate, allowing the cargo to be delivered in a much shorter amount of time.
 - Increases delivery radius by skipping roads, traffic, and the need to stop for breaks etc.
 - Lowers delivery costs by removing, or partly removing, the need for a driver and delivery vehicle.



6. Doubt Clarification /Q & A Session- Do the Learning check using these Prompt Questions:

1. Explain the types of the Soldering Processes.
2. Explain the Functions of Tools Required to do Soldering.



	<p>7. Take-Home Assignment</p> <p>In your Handouts, list out the Procedures to get a Drone Pilot License in India.</p> <p>Watch This Video: https://www.youtube.com/watch?v=WTyh4e1RMEQn</p> <p>References</p> <p>Watch This Video: https://www.youtube.com/watch?v=ANVnSFHkhBE https://www.youtube.com/watch?v=Qxb7RT6h184</p> <p>▶ How do Wings generate LIFT?</p>
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Session Plan
Solar Energy and Drone Technology

Teacher Name		Target Grade	10	Curriculum Component	Applied Learning Module

Module Title	Case study on Drone Technology		
Week Title	Solar Energy and Drone Technology	Week Number	
Important Concepts	- Drones in Military Operations - Drone's Civilian Opportunities - A case study on Drone's Eco-Friendly Agriculture		

Learning Standards
Discuss the Impact of Drones on Military Operations.
Describe the Emerging Drone's Civilian Opportunities.
Analyze the Case Study on Drone Eco-Friendly Agriculture.

Inquiry Questions
1. Give one reason why we need to get a Drone Pilot License for a commercial Purpose. 2. Give me an Industrial application of Drones



Classroom Inquiry Process

Day 5: Case study on Drone Technology	<p>Lesson Aims</p> <ol style="list-style-type: none">1. Discuss the Impact of Drones on Military Operations.2. Describe the Emerging Drone's Civilian Opportunities.3. Activity-Analyze the Case Study on Drone's Eco-Friendly Agriculture. <p>Activity Title:</p> <ol style="list-style-type: none">1. Ice-breaking on Drone's Military Operations (10 Mins)2. Impact of Drones on Military Operations (20 Mins)3. Introduction to Emerging Drone's Civilian Opportunities (30 Mins)4. Hands-On-Activity-Harnessing the power of drones for sustainable agriculture (40 Mins)5. Doubt Clarification / Q & A Session (10 Mins)6. Instructions for taking Home Assignment (10 Mins) (Individual) <p>Activity Description:</p> <ol style="list-style-type: none">1. Ice-breaking on Drone's Military Operations: At the beginning, show them the Video Related to the Application of Drones. <p>Watch This Video:</p> <p>https://www.youtube.com/watch?v=HpOtDTG2XGQ</p> <ol style="list-style-type: none">2. Impact of Drones on Military Operations:<ul style="list-style-type: none">• In the armed forces, UAVs can be used in executing several missions such as transportation, search and rescue, electronic warfare and signals intelligence, battle damage assessment, surveillance and reconnaissance and attacking an enemy target. <p>Better Reconnaissance, Surveillance, and Target Acquisition (RSTA):</p> <p>Drones provide real-time information on targets' positions, terrain, and enemy movements to commanders on the ground.</p> <ul style="list-style-type: none">• Compared to high-altitude aircraft, drones can take closer footage without compromising the quality of both photos and video.
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Predator Drone

Reduced Cost & Increased Convenience:

- Drones are cheaper than conventional aircraft in terms of both price and maintenance. Because drones are unmanned, they also reduce the risk of pilots being injured mid-flight.
- Compared to conventional aircraft, drones are faster and easier to deploy.



Rainbow Drone

Command and Control:

- Drones can relay crucial information on enemy movements, locations, and positions of strategic targets. This information allows commanders to be more efficient and make better decisions when in the field.

Yabhon United

Combat and Combat Support:

- Unmanned vehicles play a huge role in performing combat and combat support missions. Built-in targeting software allows operators to hit their targets with greater precision and accuracy.



Military Drones

Target Practice:

- UAVs can be used for target practice or for training exercises by operators to improve their accuracy. Drones' built-in targeting software is customizable to detect and respond to targets automatically.



Hunter Drone

Logistics:

- Drones can be used as military-industrial couriers and assist in delivering valuable supplies and equipment. They can also help evacuate injured personnel.



Watch this video: <https://www.youtube.com/watch?v=OcJIngr3sf4>

3. Introduction to Emerging Drone's Civilian Opportunities:

- Civilian applications of UAVs can be grouped into four major categories: commercial, civil, security and scientific.
- Most of these applications involve monitoring, communications, and imaging.

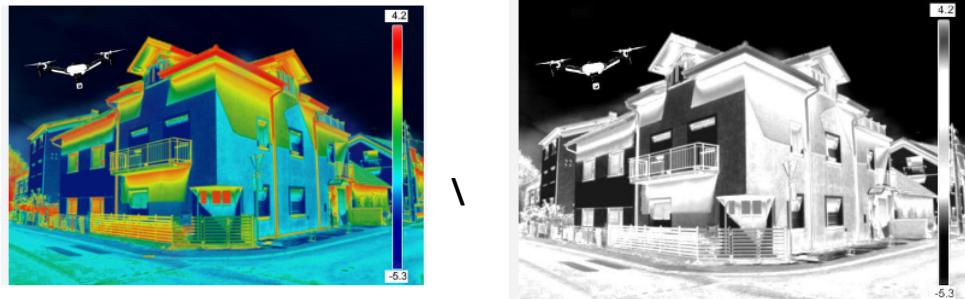
Fully Autonomous Flights— Surveying and monitoring large areas can be difficult using traditional means. However, drones with pre-programmed flight paths can turn this into a hands-free routine.



Highly-Detailed 3D Mapping— Built-in AI and integrated software can help in various functions, from search and rescue to 3D mapping. The processed data can even be sent and shared in real time.



Geotagging and Thermal Detection– Drones are surprisingly useful in the agriculture industry since they can tag, monitor, and predict plant health.



Watch this Video: <https://www.youtube.com/watch?v=ozyQvYYBKfk>

4. Hands-On-Activity- Harnessing the power of drones for sustainable agriculture



Introduction to India's Initiatives: Union Budget on Drone Shakti

- The Drone Shakti scheme and the INR 120 crore PLI scheme for drones and drone components will help increase domestic manufacturing and create employment. The fundamental aim of the industry is to generate a supplier ecosystem for the industry in India.
- Kisan Drones are already being utilized for crop assessments, land records and insecticide spraying and are projected to usher in a new era of technology in agriculture and farming.

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Activity: Prepare a Report Consisting of Types of Agriculture Drones used in Agriculture & their features. Also, Forecast India's agriculture at @2030 using Technologies.

Watch This Video: <https://www.youtube.com/watch?v=yrfKPmMz0Zo>

5. Doubt Clarification /Q & A Session- Do the Learning check using these Prompt Questions:

- Explain the advantages of drones used in the Agriculture Field?
- Give one application of drones used in the Transportation Field.

6. Take-Home Assignment

Make a one Page Learning Report (Types of drones & their Features) on Most Advanced Military Drones.

Watch This Video: <https://www.youtube.com/watch?v=p4np2YFojcs>

References

Watch This Video: <https://www.youtube.com/watch?v=EGH70XdlwsQ>
https://www.youtube.com/watch?v=n_i_BX1ZVgQ



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