3RD YEAR · FOUNDATION TRACK

SCIENCE, AGRICULTURE & ENVIRONMENT

AI & Digital Productivity Program

AI for Scientific Research, Agriculture & Environmental Awareness

Learn AI. Explore Science. Create Digital Solutions.

19	120	0
DAYS	HOURS	CODE NEEDED

Science, Agriculture & Environment Stream · 120-Hour Training Program · 19 Days

SECTION 1

Program Overview

This program is designed for Science, Agriculture & Environment students who want practical digital skills and confident use of Artificial Intelligence in their studies and future careers. Every stream learns the same core AI and productivity toolkit; the classroom activities, home assignments and final projects are built around real Science, Agriculture & Environment tasks.

HOW THIS TRACK WORKS

The Foundation Track is **tool-centred**: each day introduces a tool family, shows how it works, and lets students practise it on a Science, Agriculture & Environment task. Every classroom activity has a **Stretch Goal** so fast or curious students always have a harder challenge.

Academic year mapping. For two-year programmes (e.g. M.Sc., M.Com., MBA, B.Ed.), run the Foundation Track in Year 1 and the Advanced Track in Year 2.

TARGET AUDIENCE

B.Sc. / M.Sc. Physics, Chemistry, Mathematics, Statistics, Botany, Zoology, Biotechnology, Microbiology; B.Sc. Agriculture, Horticulture, Forestry; Environmental Science

ENTRY REQUIREMENTS

No programming or technical background required.

Learning Objectives

01 Understand AI and use AI assistants effectively and safely.

02 Research and verify Science, Agriculture & Environment information from credible sources.

03 Analyse long documents and manage PDFs with AI tools.

04 Write professional Science, Agriculture & Environment documents with AI assistance.

05 Create and deliver effective presentations.

06 Design visuals and generate AI images responsibly.

07 Organise information in spreadsheets.

08 Collect original data with Google Forms and visualise it.

09 Map ideas and processes visually.

10 Create short videos with AI voice and music.

11 Manage studies with productivity tools and use AI as a tutor.

12 Build a resume, LinkedIn profile and portfolio, and complete a Science, Agriculture & Environment project.

SECTION 2

Program Structure

Phase	Days	Daily Load	Hours
Classroom Training	Days 1–15	4 hrs/day	**60**
Home Assignments	Days 1–15	2 hrs/day	**30**
Independent Project Development	Days 16–18	8 hrs/day	**24**
Final Project Exhibition	Day 19	6 hrs	**6**
Total	19 Days		**120 Hours**

Learning Journey

1	MODULE 1 **AI Fundamentals & Research Skills**	Days 1–3
2	MODULE 2 **Digital Writing, Presentation & Design**	Days 4–6
3	MODULE 3 **Data Handling & Information Management**	Days 7–9
4	MODULE 4 **Creative Content, Productivity & Career**	Days 10–15
5	PROJECT **Independent Project & Exhibition**	Days 16–19

DAILY FORMAT
4 hours classroom training + 2 hours home assignment, Days 1–15.

STRETCH GOAL
An extra challenge in every activity for students who finish early or already know the basics.

EXPECTED OUTPUT
Every day ends with a concrete deliverable that feeds the final portfolio.

RESPONSIBLE AI RULES FOR SCIENCE, AGRICULTURE & ENVIRONMENT

- Never fabricate, fill in or 'clean up' experimental or field data with AI. Keep an unchanged copy of raw data.
- Check every AI-generated formula, unit, species name and citation against the original source.
- AI is not a reliable crop-disease, yield or weather predictor. Verify with ICAR, KVK and IMD.
- Label AI-generated scientific images as illustrative, not real observations.

DAY 01

MODULE 1 · AI FUNDAMENTALS & RESEARCH SKILLS

Introduction to AI, Prompting & Digital Safety

4 HRS CLASSROOM · 2 HRS HOME

LEARNING OBJECTIVE Introduce AI assistants, effective prompting and essential digital safety through Science, Agriculture & Environment examples.

HOUR 1

Understanding Artificial Intelligence

- What AI, Machine Learning and Generative AI are, at a basic level.
- How AI is changing study and work in Science, Agriculture & Environment.
- What AI can and cannot do well; hallucinations.

HOUR 2

AI Assistants & Prompting

- ChatGPT, Gemini and Claude: chat interfaces, context and follow-ups.
- Prompt structure: role, context, task and output format.
- Improving weak prompts through iteration.

HOUR 3

Digital Safety Essentials

- Strong passwords, password managers and 2-Step Verification.
- Spotting phishing links, fake apps and fake 'free AI' sites.
- Never upload Aadhaar, passwords or confidential records to AI.

HOUR 4 · PRACTICAL ACTIVITY

Scientific AI Assistant Challenge

- Pick a topic: photosynthesis, quantum numbers, soil pH or climate change.
- Send the same prompt to ChatGPT, Gemini and Claude and compare.
- Flag claims needing verification and write a safer, improved prompt.

STRETCH GOAL

Ask each assistant to explain the concept to a school student, an undergraduate and a researcher; note oversimplifications.

TOOLS

ChatGPT, Gemini, Claude, Google Password Manager

HOME ASSIGNMENT · 2 HOURS

- Build a starter guide: 10 tested science/agri prompts plus a digital safety checklist.

EXPECTED OUTPUT

Scientific Prompt & Safety Handbook

DAY 02

MODULE 1 · AI FUNDAMENTALS & RESEARCH SKILLS

AI-Powered Research & Verification

4 HRS CLASSROOM · 2 HRS HOME

LEARNING OBJECTIVE Find, evaluate and verify Science, Agriculture & Environment information using search engines, academic platforms and AI research tools.

HOUR 1

Fundamentals of Digital Research

- General searching vs structured research.
- Keywords, research questions and Google search operators.
- Primary vs secondary sources.

HOUR 2

Academic & Official Sources

- Finding papers and reports on Google Scholar.
- Trusted sources for Science, Agriculture & Environment: Google Scholar, PubMed / NCBI, arXiv, ICAR and KVK publications, IMD, CPCB, data.gov.in.
- Reading abstracts, authors and dates.

HOUR 3

AI-Assisted Research

- Researching with Perplexity, ChatGPT and Gemini, with citations.
- Hallucinations and fake citations: how to catch them.
- Google Lens: copy text from printed pages and check OCR errors.

HOUR 4 · PRACTICAL ACTIVITY

Science Claim Investigation

- Receive a viral claim about a home remedy, crop treatment or climate event.
- Investigate with Google Search, Scholar and Perplexity.
- Compare with two credible sources and record a verdict with evidence.

STRETCH GOAL

Use Google Lens on a printed advisory or textbook page, find the original source and fix OCR errors in symbols and numbers.

TOOLS

Google Search, Google Scholar, Perplexity, ChatGPT, Gemini, Google Lens

HOME ASSIGNMENT · 2 HOURS

- Verify one claim from your own subject: three research questions, three sources, evidence for and against, conclusion.

EXPECTED OUTPUT

Scientific Claim Verification Report

DAY 03

MODULE 1 · AI FUNDAMENTALS & RESEARCH SKILLS

Document Intelligence & PDF Toolkit

4 HRS CLASSROOM · 2 HRS HOME

LEARNING OBJECTIVE Use AI and PDF tools to organise, understand and compare research papers, lab manuals and crop or environmental reports.

HOUR 1

Understanding Long Documents

- Structure of research papers, lab manuals and crop or environmental reports.
- Finding key information quickly in lengthy material.
- Tables, figures, references and appendices.

HOUR 2

Introduction to NotebookLM

- Creating a workspace and uploading sources.
- Source-grounded questions, summaries and comparisons.
- Checking every answer against the original.

HOUR 3

PDF Toolkit

- LightPDF / iLovePDF: merge, split, compress and convert PDFWord.
- OCR for scanned pages and spotting OCR errors.
- Organising documents in Google Drive folders.

HOUR 4 · PRACTICAL ACTIVITY

Two Papers, One Topic

- Upload two research papers or a paper and a lab manual to NotebookLM.
- Extract aim, method, key results and limitations of each.
- Build a comparison table checked against the PDFs.

STRETCH GOAL

Merge, compress and OCR a scanned practical record, then check symbols and units for OCR errors.

TOOLS

NotebookLM, LightPDF, iLovePDF, Google Drive

HOME ASSIGNMENT · 2 HOURS

- Create a research dossier: two paper summaries, a comparison table and 10 Q&As, merged into one compressed PDF.

EXPECTED OUTPUT

Digital Scientific Research Dossier

DAY 04

MODULE 2 · DIGITAL WRITING, PRESENTATION & DESIGN

AI-Assisted Writing & Documentation

4 HRS CLASSROOM · 2 HRS HOME

LEARNING OBJECTIVE Create structured, professional Science, Agriculture & Environment documents using AI and digital writing tools.

HOUR 1

Professional Writing Fundamentals

- Formal vs informal writing; reports, notes and emails.
- Structure of a well-written Science, Agriculture & Environment document.
- Writing clearly for different readers.

HOUR 2

Google Docs & MS Word

- Headings, tables, headers, footers and page numbers (quick recap).
- Voice typing in English, Hindi and regional languages.
- Sharing, comments and collaboration.

HOUR 3

AI-Assisted Writing

- Outlines and drafts with AI; Grammarly for grammar, clarity and tone.
- Rewriting for different audiences while keeping your own voice.
- Plagiarism, citations and responsible AI use.

HOUR 4 · PRACTICAL ACTIVITY

Lab Report Makeover

- Receive a messy, unstructured practical write-up.
- Restructure it: aim, apparatus, procedure, observations, result, precautions.
- Use Grammarly and AI for clarity without changing any observed values.

STRETCH GOAL

Dictate an observation note using voice typing, then correct every scientific term and unit.

TOOLS

ChatGPT, Gemini, Google Docs (voice typing), MS Word, Grammarly

HOME ASSIGNMENT · 2 HOURS

- Write a professional lab or field observation report from one of your practicals.

EXPECTED OUTPUT

Professional Scientific Report

DAY 05

MODULE 2 · DIGITAL WRITING, PRESENTATION & DESIGN

Presentation Mastery & Delivery

4 HRS CLASSROOM · 2 HRS HOME

LEARNING OBJECTIVE Plan, design and deliver clear presentations on Science, Agriculture & Environment topics using AI-powered tools.

HOUR 1

What Makes a Good Presentation

- Knowing the audience; one message per slide.
- Storytelling and information hierarchy.
- Choosing visuals, charts and images.

HOUR 2

AI Planning & Presentation Tools

- Generating outlines and slide text with AI.
- Canva, Gamma, Google Slides and PowerPoint.
- Editing and fact-checking generated slides.

HOUR 3

Delivery Basics

- Voice, pace and eye contact.
- Timing a talk and using speaker notes.
- Handling questions confidently.

HOUR 4 · PRACTICAL ACTIVITY

Five-Slide Science Talk

- Turn one research finding into a five-slide outline with AI.
- Design the slides in Canva or Gamma with one chart or diagram.
- Present in 3 minutes and take two questions.

STRETCH GOAL

Deliver the same talk for Class 8 students without any slide having more than 15 words.

TOOLS

Canva, Gamma, Google Slides, PowerPoint, ChatGPT

HOME ASSIGNMENT · 2 HOURS

- Create a 7–10 slide presentation on a scientific, agricultural or environmental topic with verified sources.

EXPECTED OUTPUT

Scientific Presentation

DAY 06

MODULE 2 · DIGITAL WRITING, PRESENTATION & DESIGN

Creative Design & AI Image Generation

4 HRS CLASSROOM · 2 HRS HOME

LEARNING OBJECTIVE Apply design principles and AI image tools to create clear, attractive Science, Agriculture & Environment visuals.

HOUR 1

Design Basics

- Colour, typography, alignment and contrast.
- Composition and visual hierarchy.
- Brand consistency across a set of designs.

HOUR 2

Working in Canva

- Templates, elements, text and layers.
- Free background removal with remove.bg.
- Free images from Unsplash, Pexels and Pixabay; exporting formats.

HOUR 3

AI Image Generation

- Text-to-image prompting: style, composition, lighting, aspect ratio.
- Canva AI, Gemini image generation and Ideogram (text in images).
- Labelling AI images; copyright and attribution.

HOUR 4 · PRACTICAL ACTIVITY

Scientific Illustration & Awareness Poster

- Generate a labelled illustration (cell, circuit, crop cycle) with AI tools.
- Correct every label against the textbook.
- Design an awareness poster on water, soil or biodiversity.

STRETCH GOAL

Use Ideogram for a poster with readable text and compare it with Canva AI.

TOOLS

Canva (incl. Canva AI), Gemini, Ideogram, remove.bg, Unsplash / Pexels / Pixabay

HOME ASSIGNMENT · 2 HOURS

- Design a visual pack: one illustration, one infographic and one awareness poster, each labelled 'AI-assisted' where relevant.

EXPECTED OUTPUT

Scientific Visual Communication Package

DAY 07

MODULE 3 · DATA HANDLING & INFORMATION MANAGEMENT

Spreadsheet Fundamentals

4 HRS CLASSROOM · 2 HRS HOME

LEARNING OBJECTIVE Use spreadsheets to organise, calculate and manage Science, Agriculture & Environment information.

HOUR 1

Understanding Spreadsheets

- Rows, columns, cells and data types.
- Entering data and building structured tables.
- Formatting numbers, dates and units.

HOUR 2

Essential Functions

- SUM, AVERAGE, MIN, MAX, COUNT and COUNTA.
- IF and COUNTIF.
- Cell references, all without programming.

HOUR 3

Managing Information

- Sorting, filtering and removing duplicates.
- Data validation and drop-downs.
- Asking AI to explain a formula, then checking it yourself.

HOUR 4 · PRACTICAL ACTIVITY

Lab & Field Data Organisation

- Enter a set of lab readings or crop/weather records into Sheets.
- Calculate averages, ranges and simple counts.
- Flag missing or suspicious values without editing the raw data.

STRETCH GOAL

Use data validation to stop impossible values (e.g. pH above 14) from being entered.

TOOLS

Microsoft Excel, Google Sheets, ChatGPT

HOME ASSIGNMENT · 2 HOURS

- Build a data workbook for one experiment or field observation: raw sheet, working sheet and summary.

EXPECTED OUTPUT

Scientific Data Management Workbook

DAY 08

MODULE 3 · DATA HANDLING & INFORMATION MANAGEMENT

Digital Data Collection with Google Forms

4 HRS CLASSROOM · 2 HRS HOME

LEARNING OBJECTIVE Design digital questionnaires, collect original data responsibly and prepare it for analysis.

HOUR 1

Survey Design

- Survey objectives and target respondents.
- Open and closed questions; rating scales.
- Avoiding biased, leading and confusing questions.

HOUR 2

Building in Google Forms

- Multiple-choice, checkbox, short and long answers.
- Sections, required questions and validation.
- Form design and response settings.

HOUR 3

Responses & Responsible Collection

- Linking Forms to Google Sheets.
- Consent and anonymity.
- Collect only what you need; keep data safe.

HOUR 4 · PRACTICAL ACTIVITY

Campus Environment Survey

- Design a Google Form on campus waste, water use or energy habits (or farmer practices).
- Pilot it with classmates and remove biased questions.
- Link responses to Sheets.

STRETCH GOAL

Add a section that records observations (e.g. tree count, bin count) alongside opinions.

TOOLS

Google Forms, Google Sheets, ChatGPT

HOME ASSIGNMENT · 2 HOURS

- Collect at least 15 consented responses and bring the dataset to Day 9.

EXPECTED OUTPUT

Original Environmental Survey Dataset

DAY 09

MODULE 3 · DATA HANDLING & INFORMATION MANAGEMENT

Data Visualisation & Insights

4 HRS CLASSROOM · 2 HRS HOME

LEARNING OBJECTIVE Turn the data collected on Day 8 into charts and clear, evidence-based observations.

HOUR 1

Understanding Data

- Qualitative and quantitative data.
- Mean, median, mode and percentages.
- Spotting patterns and outliers.

HOUR 2

Choosing the Right Chart

- Bar, line, pie charts and histograms.
- Matching the chart to the question.
- Recognising misleading charts.

HOUR 3

Building Visual Reports

- Creating and formatting charts in Sheets and Excel.
- An introduction to pivot tables.
- Using AI to interpret results while checking the maths yourself.

HOUR 4 · PRACTICAL ACTIVITY

Read Your Own Data

- Chart your Day 8 survey data (or provided IMD/crop data).
- Choose the right chart for each question.
- Write three observations with their limits.

STRETCH GOAL

Build a pivot table comparing two groups (e.g. hostel vs day scholars) and state one insight.

TOOLS

Google Sheets, Excel, ChatGPT, Gemini

HOME ASSIGNMENT · 2 HOURS

- Prepare a one-page visual report with three charts and three evidence-based observations.

EXPECTED OUTPUT

Data Visualisation Report

DAY 10

MODULE 4 · CREATIVE CONTENT, PRODUCTIVITY & CAREER

Visual Thinking & Process Mapping

4 HRS CLASSROOM · 2 HRS HOME

LEARNING OBJECTIVE Organise and communicate Science, Agriculture & Environment ideas and processes visually.

HOUR 1

Visual Thinking

- Why visuals help understanding.
- Mind maps and concept maps.
- Brainstorming and grouping ideas.

HOUR 2

Timelines & Flowcharts

- Flowcharts and decision trees in diagrams.net.
- Timelines and step-by-step processes.
- Symbols, arrows and clear labels.

HOUR 3

Diagrams with Canva, Miro & AI

- Canva and Miro diagram templates.
- Asking AI to draft a diagram outline.
- Checking and correcting AI-generated steps.

HOUR 4 · PRACTICAL ACTIVITY

Process Visually Explained

- Pick a process: an experiment, a life cycle or a crop cycle.
- Draw it as a flowchart in diagrams.net.
- Create a matching concept map of key terms.

STRETCH GOAL

Ask AI to draft the flowchart steps, then find and fix at least two errors using your textbook.

TOOLS

diagrams.net, Canva, Miro (optional), ChatGPT

HOME ASSIGNMENT · 2 HOURS

- Create a visual learning resource: one flowchart and one concept map for a syllabus topic.

EXPECTED OUTPUT

Scientific Process Map

DAY 11

MODULE 4 · CREATIVE CONTENT, PRODUCTIVITY & CAREER

AI Content Creation: Video, Voice & Music

4 HRS CLASSROOM · 2 HRS HOME

LEARNING OBJECTIVE Produce short educational Science, Agriculture & Environment content using AI-assisted scripting, video, voice and music tools.

HOUR 1

Content Planning

- Audience and purpose of digital content.
- Scripts and storyboards with AI.
- Titles, captions and hooks.

HOUR 2

Video Creation & Editing

- Canva Video, Clipchamp and CapCut: trim, text, transitions, captions.
- Short AI clips with Google Flow or Kling AI (free tier).
- Combining stock footage and your own clips.

HOUR 3

AI Voice & Music

- ElevenLabs voiceover or self-recorded narration.
- Suno for jingles and background music.
- Usage rights, free-plan limits and labelling AI content.

HOUR 4 · PRACTICAL ACTIVITY

60-Second Science Explainer

- Script and storyboard a 60-second explainer with AI.
- Edit in CapCut or Canva Video with captions and a voiceover.
- Add a short Suno science jingle (disclosed).

STRETCH GOAL

Produce a version in a regional language with checked subtitles.

TOOLS

Canva Video, Clipchamp, CapCut, Google Flow / Kling AI, ElevenLabs, Suno, ChatGPT

HOME ASSIGNMENT · 2 HOURS

- Create a 60–90 second science, agri or environment explainer video.

EXPECTED OUTPUT

Science Explainer Video

DAY 12

MODULE 4 · CREATIVE CONTENT, PRODUCTIVITY & CAREER

Personal Productivity & Digital Organisation

4 HRS CLASSROOM · 2 HRS HOME

LEARNING OBJECTIVE Manage studies, tasks and resources with digital productivity tools.

HOUR 1

Personal Productivity

- Time management, goals and priorities.
- Daily, weekly and monthly planning.
- Breaking big tasks into steps.

HOUR 2

Notion & Trello

- Notion pages, databases and planners.
- Trello boards, cards and deadlines.
- Choosing the right tool for the job.

HOUR 3

Google Workspace Organisation

- Google Drive folders, naming and sharing.
- Google Calendar reminders.
- Google Keep for quick notes and checklists.

HOUR 4 · PRACTICAL ACTIVITY

Research & Lab Workspace

- Build a Notion workspace: practical tracker, assignment tracker, exam timetable.
- Add a reading list for papers.
- Organise lab files in Drive folders.

STRETCH GOAL

Use a Notion database with a 'due this week' filtered view.

TOOLS

Notion, Trello, Google Drive, Google Calendar, Google Keep, ChatGPT

HOME ASSIGNMENT · 2 HOURS

- Set up your workspace and use it to plan one real academic week.

EXPECTED OUTPUT

Academic Research Workspace

DAY 13

MODULE 4 · CREATIVE CONTENT, PRODUCTIVITY & CAREER

AI as a Personal Learning & Language Assistant

4 HRS CLASSROOM · 2 HRS HOME

LEARNING OBJECTIVE Use AI to learn difficult Science, Agriculture & Environment concepts, practise and communicate in multiple languages.

HOUR 1

AI as a Tutor

- Explanations at different difficulty levels.
- Examples, analogies and follow-up questions.
- Checking AI explanations against textbooks.

HOUR 2

Learning Through Practice

- Quizzes, practice questions and mock tests.
- Flashcards with Quizlet or NotebookLM.
- Revision schedules.

HOUR 3

Language Assistance

- Grammar, vocabulary and spoken practice.
- Google Translate and Bhashini for Indian languages.
- Checking translations, especially technical terms.

HOUR 4 · PRACTICAL ACTIVITY

Become Your Own Science Teacher

- Pick a tough concept (e.g. Hardy-Weinberg, entropy, nitrogen cycle).
- Learn it with AI at three levels and verify against the textbook.
- Create 15 practice questions and flashcards.

STRETCH GOAL

Ask AI to play a strict examiner and defend your understanding for five rounds.

TOOLS

ChatGPT, Gemini, NotebookLM, Google Translate, Bhashini, Quizlet (optional)

HOME ASSIGNMENT · 2 HOURS

- Prepare a study kit: explanation, examples, 15 Q&As, 10 flashcards and a revision plan.

EXPECTED OUTPUT

Personal Science Learning Toolkit

DAY 14

MODULE 4 · CREATIVE CONTENT, PRODUCTIVITY & CAREER

Career Readiness & Professional Identity

4 HRS CLASSROOM · 2 HRS HOME

LEARNING OBJECTIVE Use AI and digital tools for career planning, applications and a professional online presence.

HOUR 1

Career Opportunities

- Careers for Science, Agriculture & Environment students: research assistant, lab and QC roles, agri-extension, environmental consultancy, science communication.
- Identifying strengths and skill gaps.
- Reading real job descriptions.

HOUR 2

Resume & LinkedIn

- ATS-friendly resume structure; improving content with AI.
- Creating and improving a LinkedIn profile.
- Writing a short professional biography.

HOUR 3

Professional Communication & Portfolio

- Professional email in Gmail: subject, attachments, signature.
- Cover letters.
- A simple portfolio in Google Sites or Canva.

HOUR 4 · PRACTICAL ACTIVITY

Science Career Mock Interview

- Pick a role: lab assistant, QC analyst, agri-field officer or research intern.
- Analyse a real job description with AI.
- Practise answers in a mock interview.

STRETCH GOAL

Tailor your resume to two different science job postings and note what changed.

TOOLS

ChatGPT, Gemini, Canva, Google Docs, Gmail, LinkedIn, Google Sites

HOME ASSIGNMENT · 2 HOURS

- Prepare a resume, LinkedIn profile, professional bio and a basic Google Sites portfolio.

EXPECTED OUTPUT

Science Career Kit

DAY 15

MODULE 4 · CREATIVE CONTENT, PRODUCTIVITY & CAREER

Innovation Challenge & Final Project Planning

4 HRS CLASSROOM · 2 HRS HOME

LEARNING OBJECTIVE Identify a real Science, Agriculture & Environment problem and plan a digital solution using the tools learned.

HOUR 1

Identifying Real Problems

- Observing problems in Science, Agriculture & Environment and the community.
- Understanding the target audience.
- Choosing a problem worth solving.

HOUR 2

Idea Generation

- Brainstorming solutions with AI.
- Evaluating ideas for impact and effort.
- Defining objectives and users.

HOUR 3

Project Planning

- Choosing tools and deliverables.
- A realistic three-day plan.
- Project documentation and AI-use disclosure.

HOUR 4 · PRACTICAL ACTIVITY

Science Project Pitch

- Present a problem statement from science, agriculture or environment.
- Explain the solution, audience and tools.
- Get instructor approval.

STRETCH GOAL

Ask AI to argue why the project might fail, and fix your plan for the strongest objection.

TOOLS

ChatGPT, Gemini, Canva, Google Docs, Google Sheets, Notion

HOME ASSIGNMENT · 2 HOURS

- Write the project proposal: title, problem, objectives, audience, tools, deliverables and a three-day plan.

EXPECTED OUTPUT

Approved Project Blueprint

DAYS 16–18

Independent Project Development

Students work independently for three full days, applying everything learned to the project approved on Day 15.

DAY 16

8 HOURS · INDEPENDENT

Research & Project Foundation

Build the research foundation and prepare everything the project needs.

- Define the problem clearly and who benefits.
- Research with AI and credible Science, Agriculture & Environment sources.
- Collect and verify information and references.
- Prepare the content structure and resources.
- Organise materials in Drive.

DELIVERABLES

- Research document
- Verified references
- Content outline
- Resource folder
- Updated plan

DAY 17

8 HOURS · INDEPENDENT

Project Creation & Development

Build the actual project with the AI and digital tools learned.

- Prepare the main content, documents and reports.
- Create graphics, posters or infographics.
- Prepare spreadsheets, charts or survey summaries.
- Create videos or presentations as needed.
- Combine components into one solution.

DELIVERABLES

- Main project output
- Supporting materials
- Visual resources
- Preliminary presentation

DAY 18

8 HOURS · INDEPENDENT

Testing, Refinement & Final Preparation

Improve the quality, accuracy and presentation of the project.

- Review content and verify every fact and figure.
- Fix spelling, grammar and formatting.
- Improve design; check all links and media.
- Complete documentation and AI-use disclosure.
- Rehearse the final presentation.

DELIVERABLES

- Completed project
- Documentation
- Final presentation
- Demonstration plan

DAY 19 · 6 HOURS

Final Project Exhibition & Presentation

30 min	Welcome, registration and project setup
30 min	Project exhibition and gallery walk
3 hr 30 min	Individual presentations, demonstrations and Q&A
45 min	Evaluation and feedback
45 min	Recognition, certificates and closing ceremony

PRESENTATION FORMAT

Each student: 5 minutes explanation, 3 minutes demonstration, 2 minutes questions. For larger batches, run parallel evaluation panels.

Each Student Demonstrates

01 Problem statement and why it matters	**02** Research and verification	**03** Live demonstration
04 Tools used and why	**05** Responsible AI practices	**06** Learning outcomes

SECTION 3

Suggested Final Projects

Students select one Science, Agriculture & Environment project. The flagship project is recommended; alternatives suit different interests.

PROJECT 01

AI-Assisted Scientific Research Toolkit

Flagship: a complete research and communication pack on one topic.

Deliverables: Paper summaries, report, data charts, illustration, 60–90 sec explainer, AI-use disclosure

PROJECT 02

Science Explainer & Myth-Busting Series

Explain and bust common science myths for school students.

Deliverables: Three short videos, myth-vs-evidence document, three infographics

PROJECT 03

Digital Lab Safety Guide

A visual safety guide for a college laboratory.

Deliverables: Safety rules, PPE poster, hazard symbols chart, short video

PROJECT 04

Campus Environmental Audit

Measure and report on campus waste, water or energy.

Deliverables: Survey dataset, charts, audit report, awareness poster

PROJECT 05

Local-Language Crop Awareness Kit

Verified crop information for farmers in a regional language.

Deliverables: Leaflet, poster, short video, source list from ICAR/KVK

PROJECT 06

Campus Biodiversity Photo Archive

Document plants and animals on campus with verified identification.

Deliverables: Photo catalogue, species sheets, map, presentation

PROJECT 07

Study Kit for a Tough Syllabus Unit

A complete AI-assisted revision kit for one difficult unit.

Deliverables: Notes, concept maps, quizzes, flashcards, explainer video

YOUR OWN IDEA

Propose Your Own

Students may propose an original project, subject to instructor approval on Day 15.

SECTION 4

Assessment & Evaluation

Classroom participation & practical activities	15%
Daily home assignments	20%
Project planning & development	15%
Final project quality & usefulness	35%
Final presentation & communication	15%
Total	**100%**

Final Project Evaluation Criteria

Relevance of the selected problem	Quality of research and verification	Effective use of AI tools	Effective use of general digital tools
Accuracy of facts and figures	Creativity and originality	Presentation and communication	

Tools Covered

Category	Tools	Category	Tools
AI Assistants	ChatGPT, Gemini, Claude	**Surveys**	Google Forms
Research	Google Search, Google Scholar, Perplexity, Google Lens	**Visual Thinking**	diagrams.net, Canva, Miro
Documents & PDF	NotebookLM, LightPDF, iLovePDF, Google Drive	**Video**	Canva Video, Clipchamp, CapCut, Google Flow / Kling AI
Writing	Google Docs (voice typing), MS Word, Grammarly	**Voice & Music**	ElevenLabs, Suno
Presentation	Canva, Gamma, Google Slides, PowerPoint	**Productivity**	Notion, Trello, Drive, Calendar, Keep
Design & AI Images	Canva AI, Gemini, Ideogram, remove.bg	**Language**	Google Translate, Bhashini, Quizlet
Free Images	Unsplash, Pexels, Pixabay	**Career**	LinkedIn, Gmail, Google Sites
Spreadsheets	Excel, Google Sheets	**Digital Safety**	Google Password Manager, 2-Step Verification

Tool selection can be adjusted for free-plan availability, institutional access and internet connectivity. No paid subscription should be compulsory for students.

SECTION 5

Expected Program Outcomes

After completing the 120-hour Foundation Track, students should be able to:

1	Use AI assistants confidently, responsibly and safely.
2	Find and verify Science, Agriculture & Environment information independently.
3	Read and analyse long documents and manage PDFs.
4	Produce professional reports and presentations.
5	Design visuals and AI images with proper attribution.
6	Collect survey data and turn it into charts and insights.
7	Create short videos with AI voice and music.
8	Organise studies with productivity tools.
9	Prepare a professional resume, LinkedIn profile and portfolio.
10	Build a useful digital solution for a Science, Agriculture & Environment problem.

Students who complete this Foundation Track continue to the **4th Year Advanced Track**, which builds on these tools with real Science, Agriculture & Environment briefs, custom AI assistants, final-year project support and team projects for real clients.

3RD YEAR · SCIENCE, AGRICULTURE & ENVIRONMENT · FOUNDATION TRACK

Learn AI. Explore Science. Create Digital Solutions.

NO CODING REQUIRED · 120 HOURS · 19 DAYS