Curriculum Framework for Skill Education

MIDDLE STAGE (GRADES 6–8) | SESSION 2026–2027
CLASS VIII
Textbook: Kaushal Bodh (NCERT)

Introduction

Kaushal Bodh is the Vocational Education subject introduced at the Middle Stage (Grades 6–8) in alignment with the National Education Policy (NEP) 2020 and the National Curriculum Framework for School Education (NCF-SE) 2023. It is designed to provide students with structured exposure to the world of work through meaningful, project-based learning.

In the NCF-SE 2023, work has been categorised into three broad forms:

- Work with Life Forms — working with plants and animals (e.g., hydroponics, farm animal care).
- Work with Machines and Materials — working with tools, materials and technology (e.g., wood/bamboo crafting, home automation).
- Work in Human Services — interacting with people to understand and serve their needs (e.g., water audit, creating advertisements for small businesses).

Students complete their final three projects across Grades 6–8 in Grade 8 — one from each Form of Work — bringing the total to nine projects over the Middle Stage. Cross-cutting themes of Indian Knowledge Systems, values, heritage, gender sensitivity and inclusion are integrated across all projects as pedagogical principles.

Course Objectives

The broad objectives of Kaushal Bodh (Vocational Education) at the Middle Stage are:

- To introduce students to diverse forms of work and help them appreciate the dignity of all labour.
- To develop foundational vocational capacities through hands-on, project-based learning.
- To foster core competencies — communication, creativity, critical thinking, collaboration and green skills — within meaningful work contexts.
- To connect classroom learning with real-life situations and the world of work.
- To develop values related to work: persistence, attention to detail, empathy, responsibility, curiosity and willingness to do physical work.
- To help students acquire basic skills applicable to home and daily life.
- To build environmental awareness, data literacy and digital skills appropriate to grade 8.

Curricular Goals And Competencies

The following Curricular Goals (CGs) and Competencies, as defined in NCF-SE 2023, guide the design of all projects:

- CG-1: Develops in-depth basic skills and allied knowledge of work and their associated materials or procedures.
- CG-2: Understands the place and usefulness of vocational skills and vocations in the world of work.
- CG-3: Develops essential values while working across areas.
- CG-4: Develops basic skills and allied knowledge to run and contribute to a home.

Curriculum Structure

Component / Unit	Total Suggestive Periods
Part A: Projects	
Project 1: Hydroponics — Growing Plants without Soil (Work with Life Forms)	54
Project 2: Feeding and Caring for Farm Animals (Work with Life Forms)	54
Project 3: Working with Wood and Bamboo (Work with Machines & Materials)	50
Project 4: Home Automation (Work with Machines & Materials)	52
Project 5: Water Audit for Water Management (Work in Human Services)	43
Project 6: Creating Advertisements for Small Businesses (Work in Human Services)	50
Note: Students undertake **ONE** project per Form of Work (3 projects per year = 30 hours per project)	

Part A: Project-Based Curriculum

In Grade 8, students undertake three projects — one from each Form of Work. Schools may select from the six illustrative projects in the Activity Book or design their own using the Project Template in Annexure 1. Each project is designed for approximately 30 hours (55 periods of 40 minutes).

Part 1: Work with Life Forms

Project 1: Hydroponics – Growing Plants without Soil

Form of Work	Suggested Duration	Key Learning Outcomes	Cross-Curricular Links
Work with Life Forms	30 hours / 54 periods	• Understand the principles of hydroponics and soilless farming • Grow microgreens using a basic hydroponic setup • Build and maintain hydroponic units using Wick method, Deep Water Culture & record plant's growth • Prepare organic liquid manure (compost tea) for hydroponic use • Measure and adjust water pH to optimise plant growth • Develop environmental sensitivity and appreciate for sustainable agriculture	Science (Plant growth, Photosynthesis, nutrients, Water pH, Sustainable Farming)

Key Activities: 1. Field visit (Krishi Vigyan Kendra or agricultural college) to learn about use of new technologies in farming - interact with farmers/experts 2. Grow microgreens (fenugreek, mustard) for preparing a healthy salad using basic containers 3. Build hydroponic system - wall hanging pet bottle (wick method) 4. Build hydroponic system - Deep Water Culture (DWC) or Bucket method 5. Build hydroponic system - Nutrient Film Technique (NFT) system using PVC pipes 6. Prepare compost tea as an organic liquid fertiliser – study decomposition and nutrient release 7. Test water pH using pH paper; note the reading; record its effect on plant growth 8. Monitor and record plant growth over the duration of the project 9. Compare yields, health of plant, growth rates and cost across the different hydroponic methods 10. Exhibit hydroponic setup and micro greens at Kaushal Mela			

Project 2: Feeding and Caring for Farm Animals

Form of Work	Suggested Duration	Key Learning Outcomes	Cross-Curricular Links
Work with Life Forms	30 hours / 54 periods	• Develop sensitivity towards the well-being of domestic and farm animals • Understand the diversity of domesticated animals and their importance to human life and livelihoods • Understand the dietary, shelter, health and behavioural needs of farm animals • Prepare appropriate feed and provide basic care for a farm animal • Observe and record animal behaviour with sensitivity and respect	Science (animal nutrition, biology, health, disease prevention)
Key Activities: 1. Introduction to the diversity of domesticated animals and their contribution to human life 2. Field visit to a veterinary clinic or animal healthcare centre – interact with veterinarians 3. Participate in an animal vaccination or health check-up drives 4. Study shelter requirements: space per animal, ventilation, drainage; clean and prepare an animal enclosure or shed; 5. Identify signs of illness; demonstrate basic first aid for minor wounds 6. Prepare a simple health card for a selected animal – observe and document behaviour and conditions			

7. Prepare a feeding chart detailing nutritional requirements and feeding schedule
8. Offer appropriate feed formulation to animals and observe their feeding behaviour and response.
9. Prepare simple home remedies for common livestock issues (wounds, digestive problems)
10. Organise a Kaushal Mela display: show photographs, feed chart, daily care routine, behaviour record and health care

Part 2: Work with Machines and Materials

Project 3: Working with Wood and Bamboo

Form of Work	Suggested Duration	Key Learning Outcomes	Cross-Curricular Links
Work with Machines and Materials	30 hours / 50 periods	• Identify the properties & uses of wood and bamboo as construction and craft materials • Apply safe techniques for using basic carpentry tools • Design and make a functional or decorative item using wood or bamboo • Perform basic repairs around the school using carpentry skills • Connect traditional carpentry and bamboo craft to sustainable livelihoods	Maths (measurement, geometry, costing); Arts (design, craftsmanship, best out of waste)

Key Activities:

1. Collect samples of 3–5 types of locally available wood and bamboo; discuss why bamboo is considered eco-friendly
2. Identify and name basic carpentry tools; observe a teacher demonstration of each tool
3. Practise safe handling; establish safety rules and ensuring it is being followed
4. Visit a local carpenter's workshop or invite a carpenter / bamboo artisan to school - ask about types of wood best for different products; record the details
5. Practise accurate measurement and marking for correct results
6. Choose a product to design and make a prototype:
7. Make a product from wood (e.g., bookstand, photo frame, small shelf, toy)
8. Make a product from bamboo (e.g., pencil stand, wind chime, basket)
9. Quality check and calculating the cost of materials used; compare with market price of similar products and determine the selling price
10. Perform basic repairs around the school (fixing loose hinges, reinforcing furniture)
11. Organise a Kaushal Mela display: exhibit finished products; discuss role of traditional craft skills in self-reliance

Project 4: Home Automation

Form of Work	Suggested Duration	Key Learning Outcomes	Cross-Curricular Links
Work with Machines and Materials	30 hours / 52 periods	• Understand the basics of electronics and automation: and its applications in daily life • Explore and build basic electronic circuits and learn to program using simple logic. • Understand the automation cycle: input, processing, output • Design and build a simple home automation system using a microcontroller • Connect electronics and programming concepts to real-world smart home applications	Science (electricity, circuits, sensors)

Key Activities:

1. Identify and name basic automation components used in our surroundings – school, home, factories, etc
2. Learn about circuits using a simulation platform (e.g., Tinker card or similar online tool)
3. Build a simple circuit on a breadboard (battery → switch → resistor → LED) - understand voltage, current and resistance
4. Learn about automation flow and how it works: input (sensor), processing (code), output (actuator)
5. Explore the full automation cycle using a microcontroller (e.g., Arduino or similar)
6. Choose a home automation prototype: automatic night light, motion-sensor alarm or timer/temperature-based fan control
7. Make your own automation system – design a solution to a problem at home or school
8. Test, troubleshoot and improve the automation system
9. Present and demonstrate the automation system at Kaushal Mela

Part 3: Work in Human Services

Project 5: Water Audit for Water Management

Form of Work	Suggested Duration	Key Learning Outcomes	Cross-Curricular Links
Work in Human Services	30 hours / 43 periods	• Understand methods for measuring and estimating water consumption • Collect and analyse data to understand water consumption, rainwater availability and sources of water waste • Prepare a structured report with specific, evidence-based recommendations for reusing and conserving water • Develop environmental stewardship and data literacy skills	Science (water cycle, conservation, measurement) Mathematics (data collection, averages, graphs, percentages) Social Science (water rights, equity, environmental responsibility)

Key Activities:

1. Discuss freshwater availability: list all ways water is used at home and school;
2. Identify water-scarce regions in India; discuss what a water audit is and what can be done with the findings
3. Visit to Municipal Corporations/ Water Supply Department to understand the water supply system and challenges of your locality
4. Plan the audit scope (home, classroom, school building or both); identify all water sources and uses to be measured (taps, toilets, coolers, gardening, cleaning)
5. Design a survey form and observation checklist to collect water consumption data with rainwater availability
6. Collect secondary data: school/municipal water bills for the past 3–6 months; organise all data in tables using computer device
7. Compile audit findings into a structured report and analyse the data on the consumption – identify wastage points and estimate waste volumes
8. Explore and document methods of reusing water in school and at home - finding solutions to the identified water waste issues
9. Calculate potential water savings from proposed conservation measures and estimate future water requirements based on population and climate trends
10. Organise a Kaushal Mela: present the audit report for the school or community.

Project 6: Creating Advertisements for Small Business

Form of Work	Suggested Duration	Key Learning Outcomes	Cross-Curricular Links

Work in Human Services	30 hours / 50 periods	• Understand the role of advertisements in society and the economy • Identify the elements that make an advertisement effective and ethical • Learn about the needs of small businesses in terms of advertisement and marketing • Create a multi-format advertising campaign (print, digital, audio/video) • Develop critical thinking to evaluate advertisements for accuracy, persuasion techniques and ethical concerns • Practice marketing, communication and design skills in a real-world context.	Language (persuasive writing, communication, creative expression) Art Education (visual design, layout, typography) Social Science (economics, local livelihoods, marketing, consumer rights)

Key Activities:

1. Collect 5–10 advertisements from different media (newspaper, TV, social media);
2. Identify: the product, target audience, key message and persuasion technique (celebrity endorsement, discount, emotional appeal, fear, humour)
3. Identify any misleading claims; create a classification table rating each advertisement as acceptable, questionable or misleading; discuss consumer rights to accurate information
4. Meet an advertising or marketing expert – understand the profession and creative process
5. Select a small business nearby; visit or interview the owner; Identify the business's products, unique selling point (USP), target audience and needs
6. Sketch 2–3 rough layouts; create the final print advertisement using Canva, Google Slides or hand-drawing
7. Review advertisements for ethical dimensions: honestly, inclusion, no harmful stereotypes
8. Create a digital advertisement in one format; share the draft with the business owner for feedback
9. Compile the complete campaign and present to the business owner
10. Organise a Kaushal Mela display: exhibit the print advertisement, digital post and video/audio samples - invite the client/experts/other guests

Part B: Pedagogy And Teaching Activities

Classroom Activities

Each project involves preparatory activities conducted in the classroom before, during and after field visits and hands-on work. Teachers should use audio-visual materials, charts, models, and AI tools to orient students to project concepts. Interactive discussions, expert talks and reflective questioning are integral to the approach.

Practical Work / Hands-On Activity

Practical work is the heart of Kaushal Bodh. Students must work with actual tools, materials and equipment to complete each project activity. Prevalent biases must be addressed — work roles must not be assigned based on gender or social background. All students must participate in all activities. Projects can be adapted for students with special needs.

Field Visits

At least one field visit is built into each project. These include visits to hydroponic farms or KVKs, dairy or poultry farms, carpenter workshops, electronics repair shops, water treatment plants and local small businesses. Students should prepare questions in advance, record observations systematically and present findings on return.

Safety

Safety precautions must be demonstrated and practised for all tool use, electrical work, field visits and digital activities. Students must be supervised while using sharp tools (saws, chisels), electrical gadgets (aerators, Arduino boards) and digital devices. Internet use must be supervised; students must not share personal information online.

Role of AI Tools

The Activity Book integrates AI tool suggestions throughout: ChatGPT for research support and creative ideation, Google Lens for species and material identification, Canva AI for advertisement design, and translation tools for multilingual communication. These are optional enhancements; all projects can be completed without AI tools. Student use of AI must be supervised.

Part C: Assessment And Evaluation

Kaushal Bodh emphasises continuous, process-oriented assessment. The suggested weightage for theoretical aspects is 20% and for practical aspects 80%. The mode-wise weightage is as follows:

Mode of Assessment	Weightage
Written Test (paper-pencil, situational Qs)	10%
Oral Presentation / Viva Voce	30%
Activity Book (in-text responses & tables)	30%
Portfolio (photographs, sketches, records)	10%
Teacher's Observation (work values)	20%
TOTAL	**100%**

Each project focuses on developing specific skills, knowledge and capacities, along with essential values related to work. The Annexure 2 of the textbook details the Competencies (C) and Learning Outcomes (LOs) defined for Grade 8 for the attainment of each Curricular Goal (CG)

List Of Tools, Equipment And Materials

The list provided below is indicative. Schools are encouraged to procure tools and materials based on the projects they select (as detailed in the textbook) and may adapt this list according to local availability. Only basic tools and materials need to be procured; priority should be given to leveraging community resources and locally available items.

Work with Life Forms	Work with Machines & Materials	Work in Human Services
Seeds (spinach, fenugreek, mustard, coriander)	Hand saw, chisels, hammer, mallet	Water meter / bucket + stopwatch
PET bottles, plastic trays, styrofoam sheets	Sandpaper (coarse & fine), wood file	Graph paper, measuring tape, ruler
Aquarium aerator & submersible pump	Drill machine, screwdriver set	Smartphone / tablet (survey tool)
PVC pipe (76 mm), net pots, cocopeat	Wood / bamboo (locally sourced)	Printed survey forms and data tables
pH paper, citric acid / vinegar	Nails, screws, wood glue, clamps	Laptop / tablet (ad design)
Vermicompost / compost, muslin cloth, jaggery	Finish: paint, varnish, natural oil/wax	Camera / smartphone (photography)
Watering can, gardening gloves	Arduino Uno board, USB cable	Poster boards, sketch pens, markers
Animal feed (hay, green fodder, grains)	LED, resistors, breadboard, wires	Canva / Google Slides (design tool)
First-aid kit, animal care guide	Relay module, PIR / LDR sensors	Local newspaper / media samples
Animal health card template	Power supply and multimeter	Community business contact list

EXEMPLAR PROJECT LIST — GRADES 6 TO 8

Schools may select from the six illustrative project options across the three Forms of Work for each grade, as detailed in the textbook. Further, Annexure 3 presents an indicative list of exemplar projects to support schools in designing new projects.

Work with Life Forms	Work with Machines & Materials	Work in Human Services
Hydroponics / Growing Plants without Soil	Working with Wood and Bamboo	Water Audit for Water Management
Feeding and Caring for Farm Animals	Home Automation	Creating Advertisements
Integrated Pest Management	Carpentry — Making Furniture	Organising a Food Stall / Market
Composting and Organic Farming	Basic Electronics — Circuits	Community Health Survey
Medicinal Plant Garden	3D Printing / Rapid Prototyping	Personal Finance and Budgeting
Dairy Farming Practices	Welding and Metal Fabrication	Running a School Cooperative
Sericulture / Beekeeping	Making Musical Instruments	Waste Management Drive
Aquaponics	Solar Energy Projects	Digital Literacy for Senior Citizens
Soil Health and Conservation	Robotics with Arduino	Creating a Community Podcast
Nature Journal and Field Documentation	IoT-based Smart Systems	School-Based Enterprise

Criteria For Project Selection

When designing or selecting a project beyond those illustrated in the Activity Book, the following criteria should be considered:

- Is the project age-appropriate and achievable for Grade 8 students?
- Does it draw on learning from other subjects?
- Is it connected to work students can observe in their surroundings?
- Will students be able to interact with community experts in the relevant field?
- Does it provide genuine hands-on experience with tools, materials or digital media?
- Will students find it challenging, interesting and relevant to their lives?
- Does it develop values related to work, especially the dignity of labour?
- Can it be completed in 30 hours (approximately 55 periods of 40 minutes each)?
- Will the project help students apply learning to daily life and home situations?
- Does it build on and extend the skills developed in Grades 6 and 7?

Who Will Teach

Any existing teacher with relevant knowledge, understanding and expertise may lead Kaushal Bodh at the Middle Stage, supported by resource persons and master instructors from the community. The Head of School may nominate a Teacher Coordinator to schedule and oversee project activities. Schools may also invite parents, artisans, mechanics, farmers and other community members as resource persons.