



PROJECT METHOD IN LIFE SCIENCE TEACHING

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1. Introduction

Life Science deals with real-life problems such as health, environment, food, hygiene, plants, animals, and ecosystems. Students learn best when they **investigate these problems in real situations**, collect information, and prepare meaningful solutions.

The **Project Method** provides such learning. It shifts the classroom from **memorising facts** to **doing, exploring, and solving problems** in the real world. Students work on a purposeful task that results in a **tangible product**, such as a model, report, survey, chart, experiment, garden, or presentation.

It follows the principle:

☞ **“Learning by purposeful activity.”**

2. Meaning

The Project Method is a **student-centred instructional approach** in which students:

- Select or are assigned a real-life problem/topic,
- Plan and carry out activities,
- Collect and analyse information,
- Produce a meaningful outcome,
- Present their findings.

The teacher acts as a **guide, facilitator, and resource person**, while students take responsibility for their own learning.

3. Key Characteristics

- Based on **real-life and practical situations**
 - Students work **individually or in groups**
 - Involves **planning, investigation, and execution**
 - Leads to a **concrete product or outcome**
 - Integrates knowledge from **science and other subjects**
 - Encourages **collaboration, creativity, and decision-making**
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☑ 4. Objectives of the Project Method in Life Science

- To relate life science concepts to **real-life situations**
 - To develop **research and problem-solving skills**
 - To promote **observation, data collection, and analysis**
 - To foster **teamwork, cooperation, and leadership**
 - To build **environmental awareness and scientific attitude**
 - To encourage **self-reliance, creativity, and responsibility**
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☑ 5. Steps in the Project Method

Step 1: Selection of the Problem/Topic

Topic may be chosen by students, suggested by teacher, or identified through real-life needs.

Step 2: Planning

Students decide:

- What to do?
- How to do it?
- What materials are needed?
- Who will do each task?
- What is the timeline?

Step 3: Execution

Students carry out activities such as:

- Observation
- Field visits
- Surveys
- Experiments
- Model making
- Record keeping

Teacher supervises without interfering unnecessarily.

Step 4: Presentation / Product

Students present their results through:

- Report
- Chart
- Model
- Presentation
- Album
- Garden/Exhibit/etc.

Step 5: Evaluation

Teacher evaluates:

- Planning and teamwork
- Skills and accuracy
- Scientific understanding
- Final product and presentation

Students may also reflect on what they learned.

6. Advantages

- Makes learning **practical, meaningful, and enjoyable**
 - Encourages **active participation**
 - Develops **scientific and social skills**
 - Strengthens **teamwork and communication**
 - Creates long-lasting knowledge
 - Builds **responsibility and confidence**
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7. Limitations

- Time-consuming
 - Requires resources and planning
 - Difficult with very large classes
 - Some students may depend too much on others
 - Assessment can be challenging
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8. Ways to Improve Project Work

- Choose **simple, relevant topics**
 - Provide clear guidance and timelines
 - Encourage equal participation
 - Use local, low-cost materials
 - Combine fieldwork with classroom learning
 - Review progress regularly
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CLASSROOM EXAMPLE

Project Topic: *“Growing a School Kitchen Garden”* (Class 6–8)

1. Selection of Topic

Students observe rising vegetable costs and discuss food sources. They decide to investigate:

👉 **“How can we grow vegetables naturally in school?”**

2. Planning

Students make a plan:

- Identify a small plot of land in school.
- Decide which vegetables to grow (e.g., spinach, beans, tomatoes).
- List required materials: seeds, tools, water, compost.
- Divide duties:
 - Soil preparation team
 - Seed sowing team
 - Watering and care team
 - Observation and record team

Timeline: **6–8 weeks**

3. Execution

Students:

- Prepare soil and add compost.
- Sow seeds.
- Water regularly.
- Observe growth weekly.
- Record height, number of leaves, colour, etc.
- Take photos.
- Control pests using natural methods (neem spray, hand-picking).

The teacher supervises and ensures safety.

4. Observation and Data Recording

Students maintain:

- Growth charts
- Diagrams
- Photographs
- Weekly reports

They note:

- Which plants grew faster?
 - Effect of sunlight and watering?
 - Changes in leaf colour and size?
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5. Product / Presentation

Students:

- Harvest vegetables.
- Prepare a **chart and report**.
- Display photos and data.
- Present findings in a class exhibition.

Outcome:

 A real kitchen garden + scientific learning.

6. Conclusion

Students conclude:

- Plants need proper soil, water, sunlight, and care.
- Organic methods support healthy growth.
- Food production is a biological and environmental process.

They also learn teamwork, responsibility, and environmental awareness.

7. Evaluation

Teacher evaluates:

- Participation
- Data accuracy

- Scientific understanding
 - Final presentation
 - Maintenance of records
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Conclusion

The Project Method in Life Science:

- Connects classroom learning with **real-life experiences**
- Makes science **meaningful, practical, and enjoyable**
- Develops lifelong skills like **teamwork, observation, inquiry, and problem-solving**

It transforms students from passive listeners into **active doers and young researchers**, helping them appreciate the living world around them.
