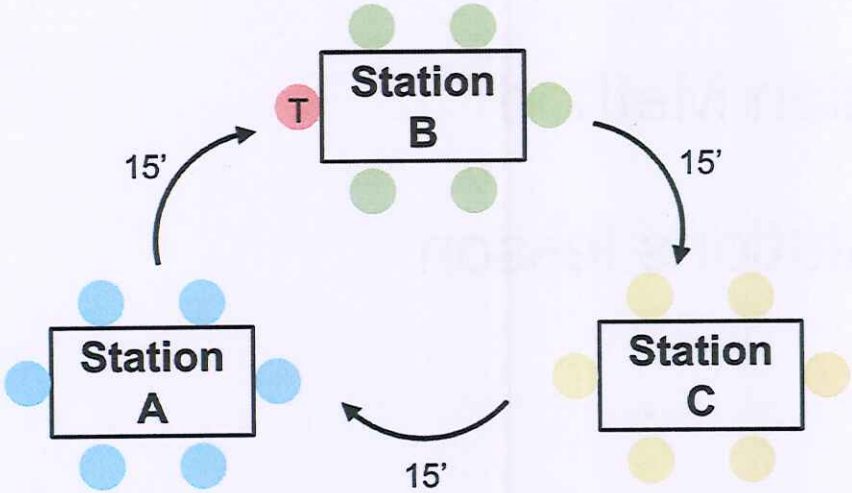
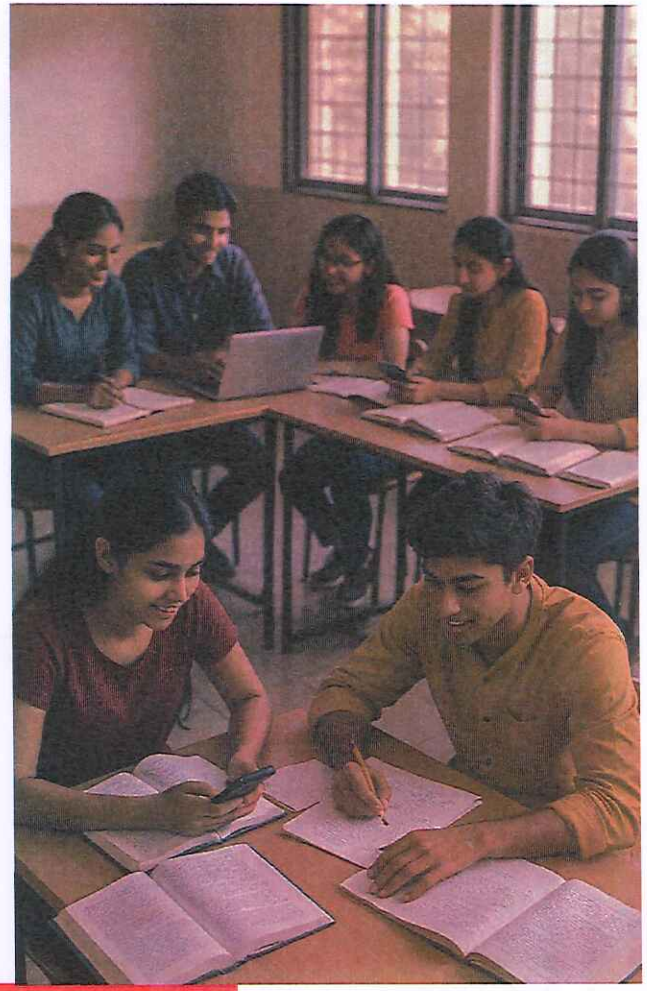
Station Rotations





Unit 4_3

Today's goals

- **Analyzing** Learning Station Method
- **Composing** a learning stations lesson
- **Integrate** AI (Prompting)

At the end of this lesson you can…

analyze the Learning Station Method.

compose a learning stations lesson.

integrate AI (Prompting).

Steps of today's lesson

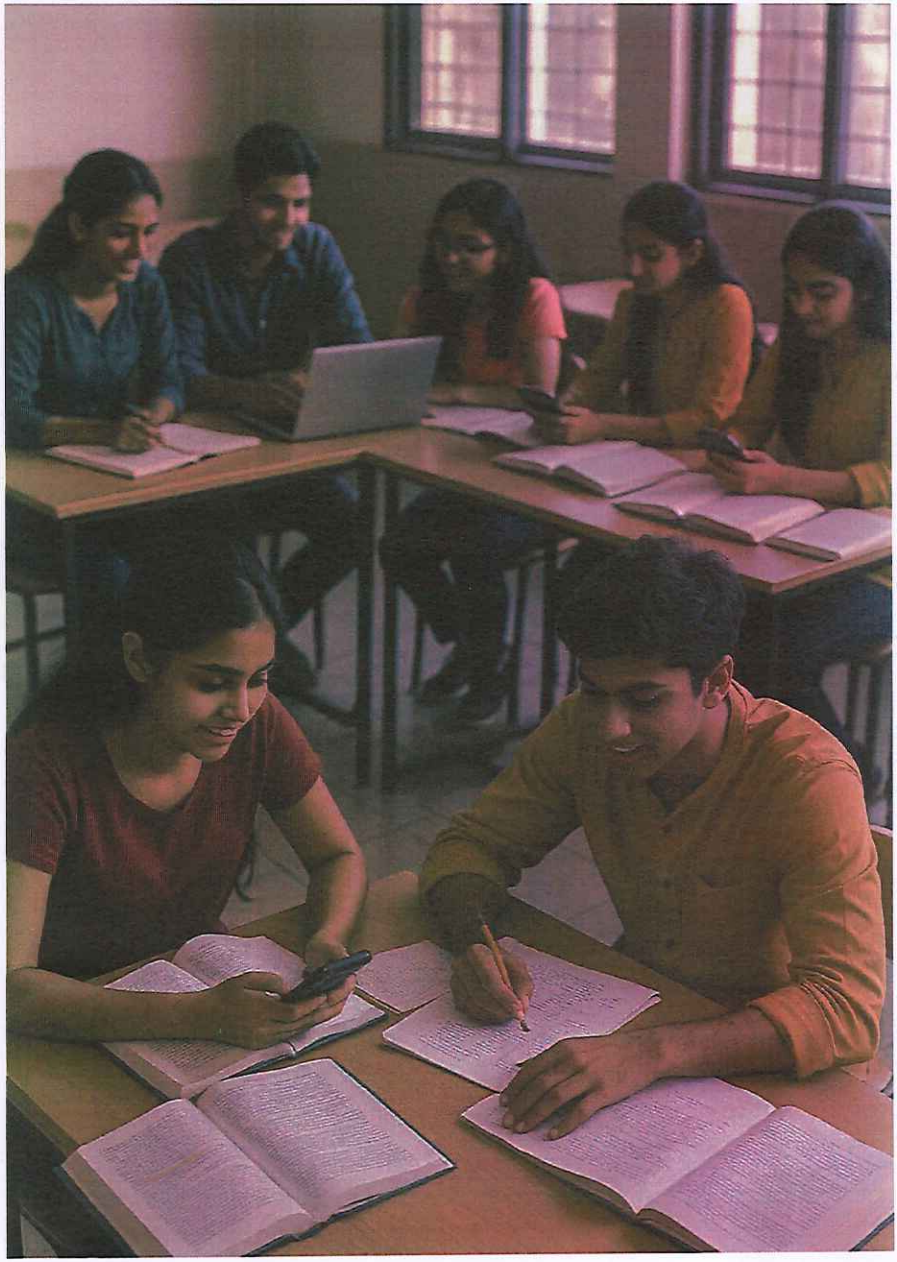
- Learning stations (instead of ~~'self learning'~~!!)
- 100 Min. Learning stations lesson, with AI
- Evaluation

Learning Stations

Learning Stations

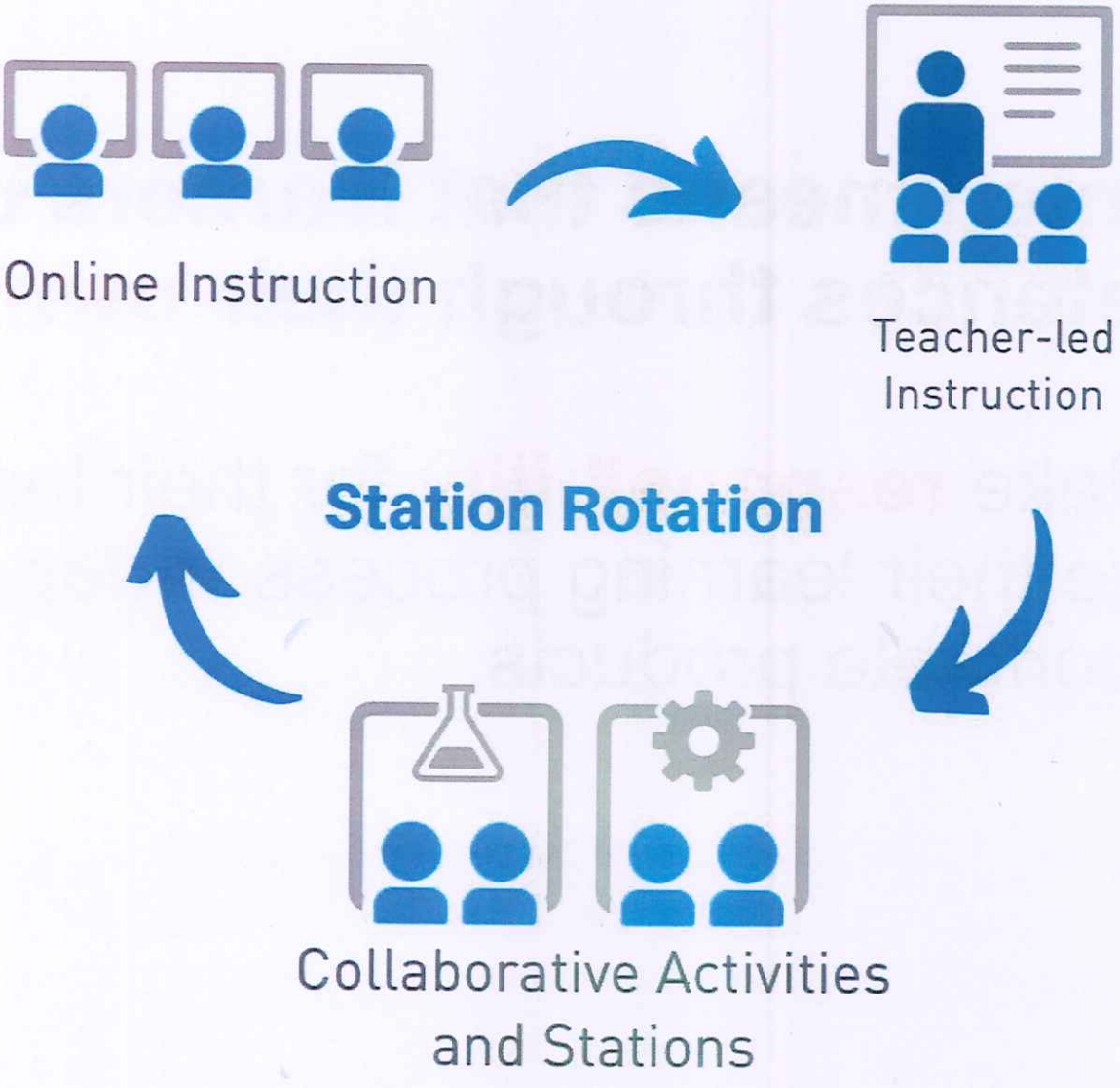
- Specific areas in a classroom where students rotate through to complete different learning tasks or activities.

- Designed to allow students to engage with the same goal in various ways.



Action-oriented means that learners develop their competences through their own actions.

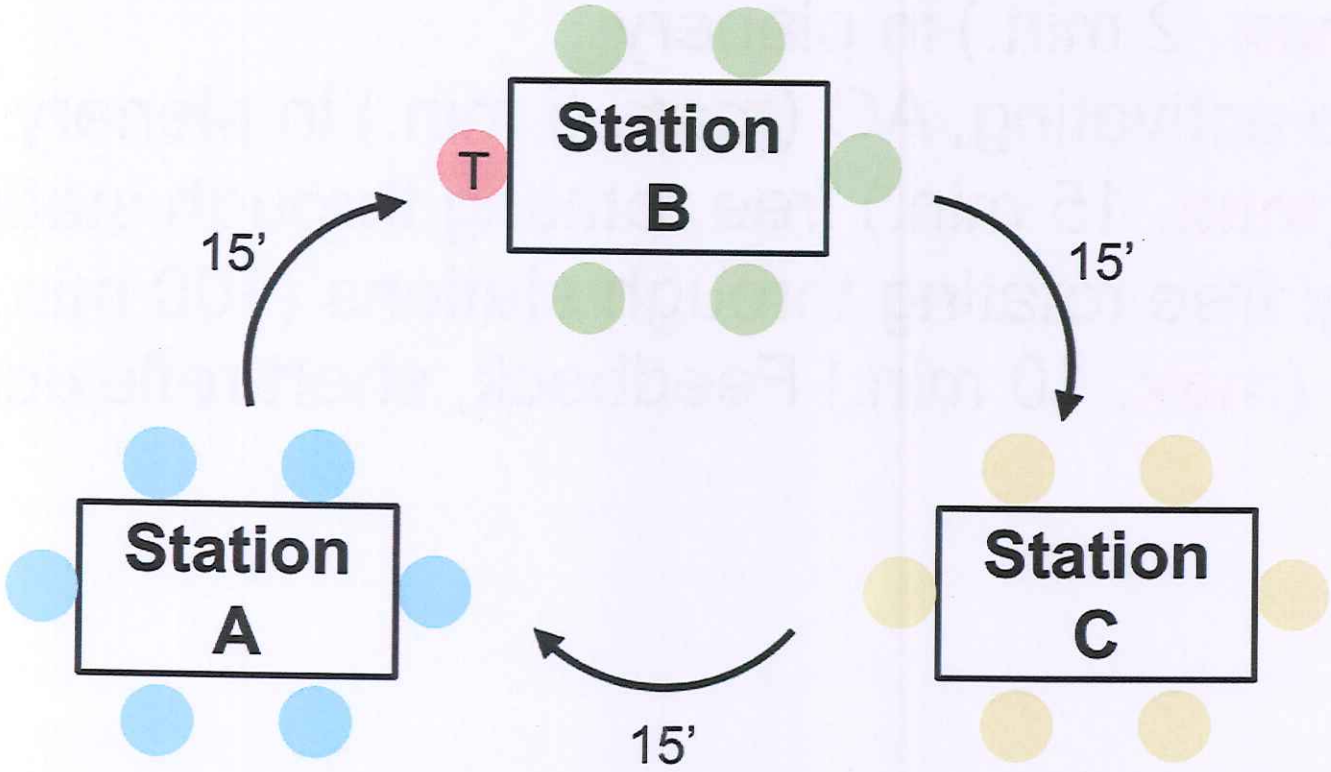
The learners take **responsibility** for their learning in class, organize their learning process **independently** and work on concrete products.


Online Instruction
Teacher-led Instruction
Station Rotation
Collaborative Activities and Stations

Structure of Learning Stations with AKIDE:

1. **A**rriving (**max**. 2 min.) in planery
2. **K**nowledge activating, AO (**max**. 5 min.) in plenary
3. **I**nforming (**max**. 15 min.) free rotating through stations
4. **D**eepening: free rotating through stations (100 min. or more)
5. **E**valuating (**max**. 10 min.) Feedback, short reflexion in plenary

Station Rotations

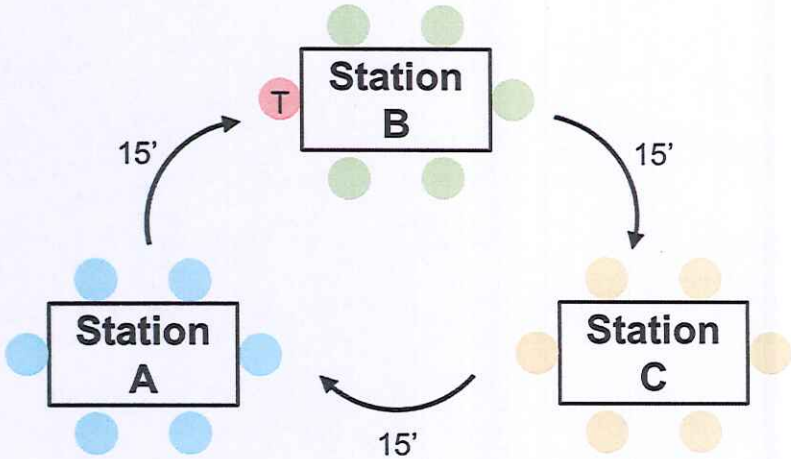


This method is used to develop students' competencies such as:

> **self-study** and autonomy competencies

> **communication** and cooperation competencies

> **problem-solving** and creativity competencies, etc.



Students can…

> move to different stations **independently**,

> solve issues or complete the tasks at stations by themselves,

> improve their **creativity** competency by drawing mind maps, making products, etc.,

> **communicate**, discuss about the problems stated at stations,

> **collaborate** with their peers/group members.

COLTS
ALL WE HAVE TO DECIDE IS WHAT TO D

Task 1

Task: Please read in script 4_3, page 2-6, the detailed informations about 'Learning Stations'. Note keywords, which you find important for your **own** lesson creation. What should be taken into account of a lesson plan with **different** types of tasks? Share your notes and ideas with your partner.

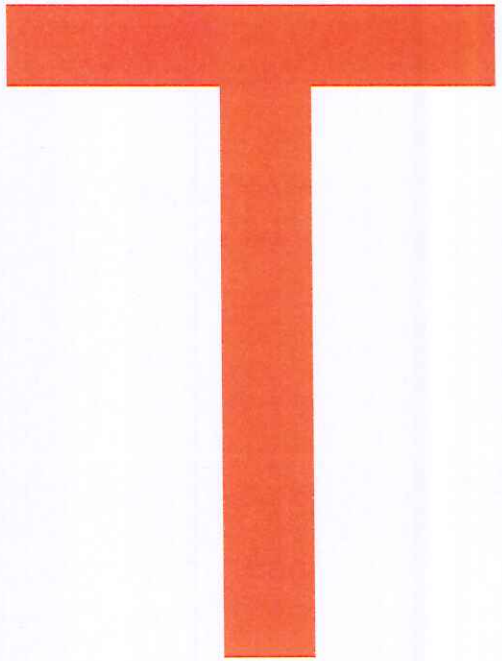
Interaction pattern: Individual/Partner work

Location: Classroom

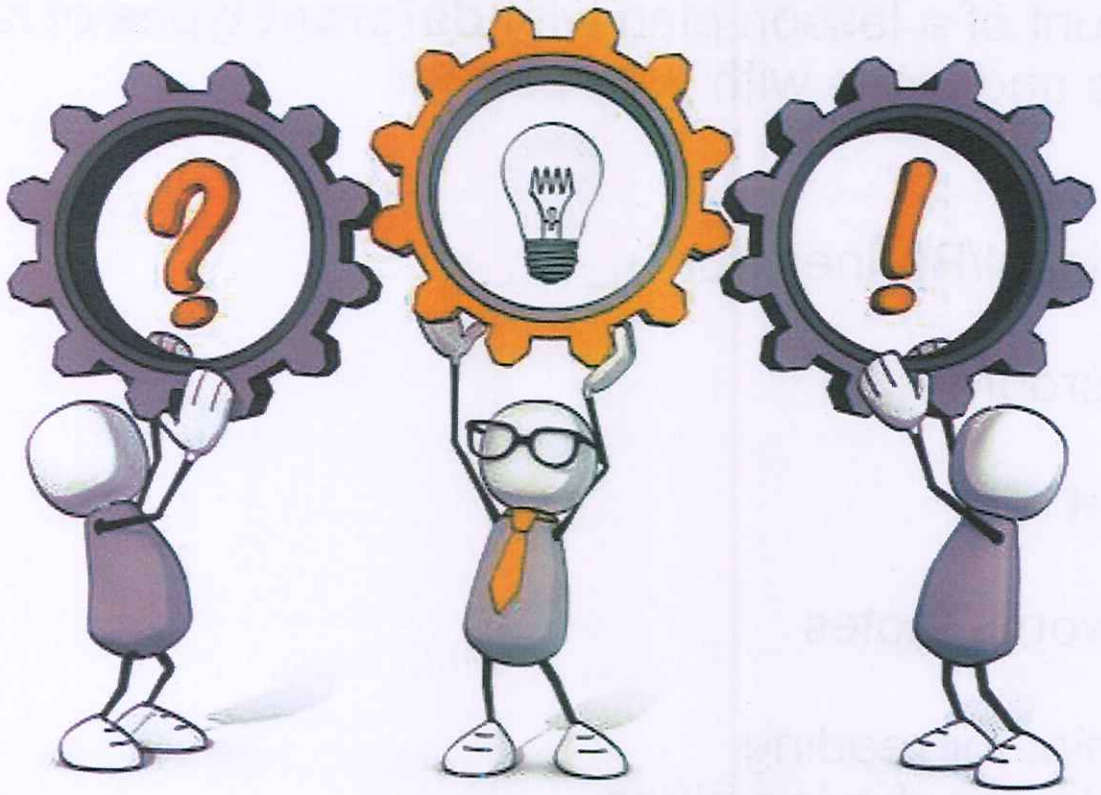
Resources: Script

Product: Keywords, notes

Time: 20 min. for reading
20 min. for sharing ideas



Time for statements, reflections, questions



Prompting

Task 2

Task: On GoogleDrive you find the Word doc. '1. AKIDE_Template'. **Before** you formulate a prompt, you need to know what you want. Fill in with keywords your ideas for different learning stations. On page 5-6 you find 8 steps. Review these steps using your template. Which of these steps can you apply?

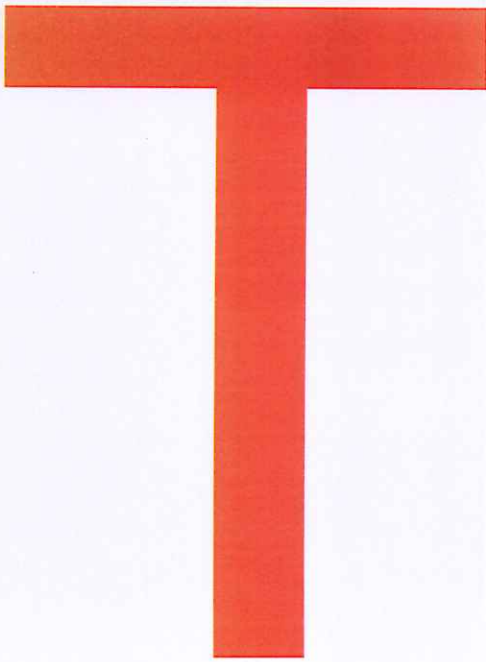
Interaction pattern: Individual/Partner work

Location: Classroom

Resources: Script

Product: Keywords, notes

Time: 10 min.



Task 3

Task: 1. Please find in script 4_3, page 7-9 the prompt examples. Compare them with your notes. Do you think these examples would work? Is there something to be added, to be precised? Look at these examples with a critical eye.
2. Prompt on ChatGPT your own ideas. Compare! Analyze! Reflect!

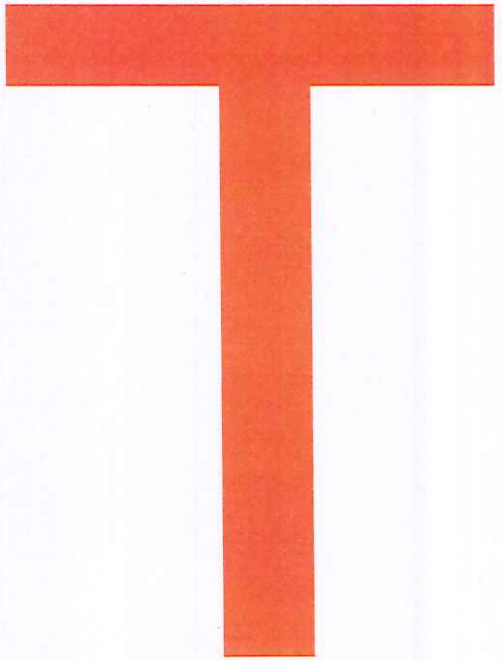
Interaction pattern: Partner work

Location: Classroom

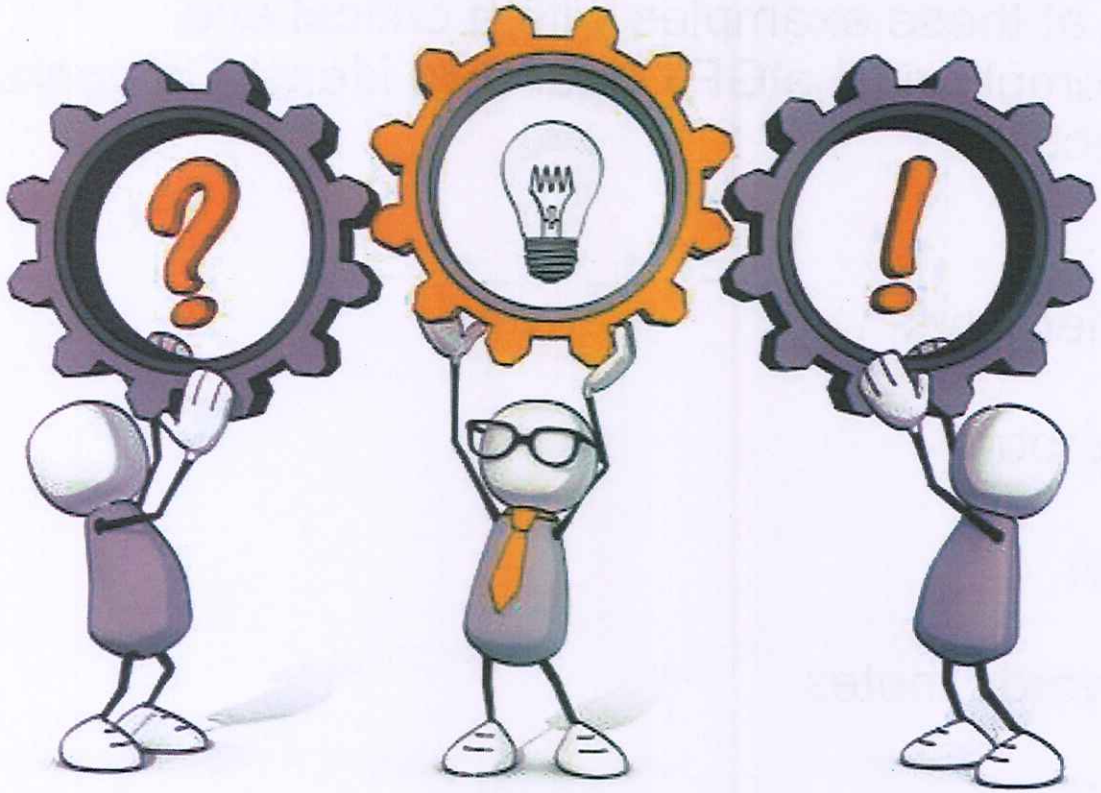
Resources: Script

Product: Keywords, notes

Time: 40 min.



Time for statements, reflections, questions



Task 4

Task: Create **five** learning stations with ChatGPT for a 100 min. lesson. Include **two** problem-based stations. Which **formula** (page 10) is for your the most useful? Compare the outcome of two different formulas.

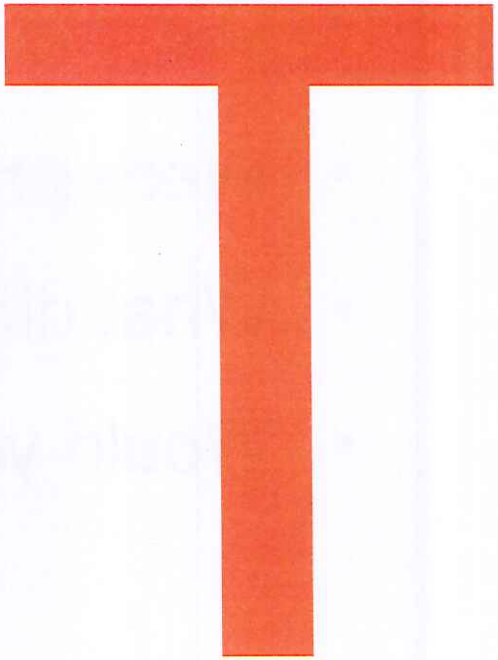
Interaction pattern: Individual / Partner work

Location: Classroom

Resources: Script

Product: Material for five learning stations

Time: 60 min.



Reflection Questions - Evaluation

- How well did ChatGPT follow your prompt?
- Which stations needed revision?
- Did you adapt your prompt along the way?
- Were **problem-solving tasks** effective?
- What did you learn about AI in planning?
- Would you use this approach again? Why/why not?

Today's goals

- **Analyzing** Learning Station Method ✅
- **Composing** a learning stations lesson ✅
- **Integrate** AI ✅

At the end of this lesson you can…

analyze the Learning Station Method.

compose a learning stations lesson.

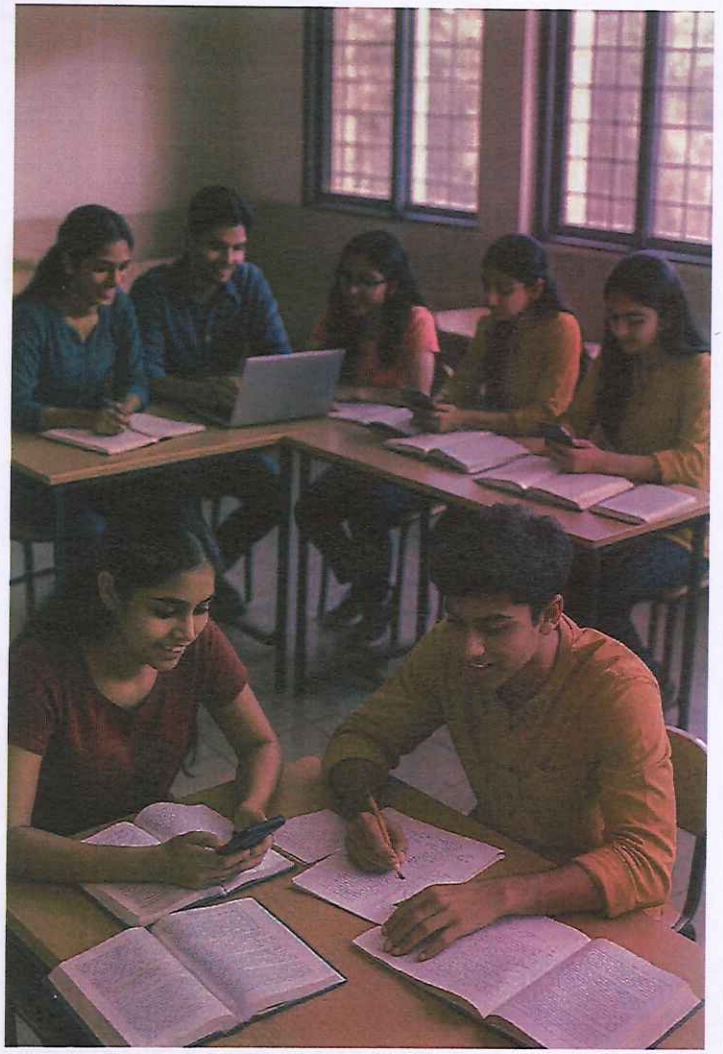
integrate AI (Prompting).

Goals achieved? ✔

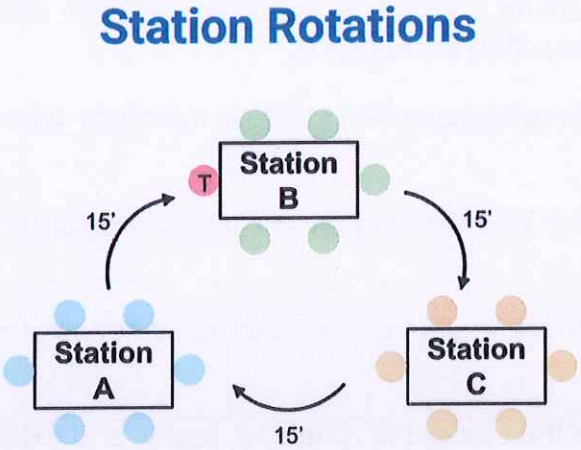
उमंग उत्साह किसी स्थिति के साथ जुड़ जाने की तीव्र इच्छा

Strong excitement of feeling = Enthusiasm

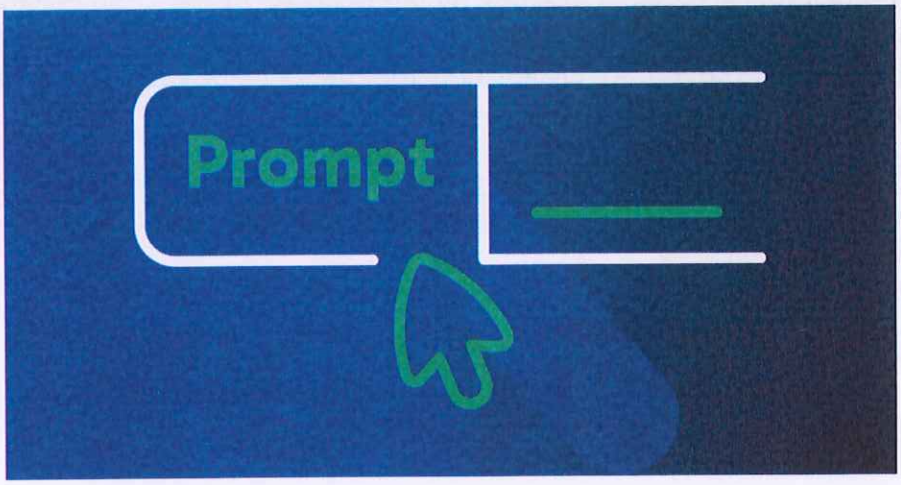
Thank you for your attention!



Learning Station Method



Prompting



Learning Station Method

Innovating teaching methods according to competency development is not only a rule but also the needs of both teachers and learners. Teaching methods are important factors and greatly affect the quality of teaching and training. An appropriate teaching method will create great conditions for the teacher to develop his or her fullest ability in the communication and the learners will develop the capacity to acquire knowledge and develop thinking. A suitable teaching method changes the role of the teacher by stimulating interest, passion, and creativity in learners.
The Learning Station method is used to develop students' competencies such as self-study and autonomy competencies, communication and cooperation competencies, problem-solving and creativity competencies, etc. When teachers apply Learning station methods for their classes, students are more proactive and independent when solving problems, enhancing their competencies of working in group, being more confident and enhancing specific competencies when they study different subjects.

Teachers can differentiate at least four elements based on student readiness, interest, or learning profile:

- **Topic**—what the student needs to learn or how the student will get access to the information;

- **Interaction patterns**—activities in which the student engages to make sense of or master the content;

- **Products**—culminating projects that ask the student to rehearse, apply, and extend what he or she has learned in a unit; and

- **Learning environment**—the way the classroom works and feels.

This method is used to develop students' competencies such as self-study and autonomy competencies, communication and cooperation competencies, problem-solving and creativity competencies, etc. Students can move to different stations independently, solve issues or complete the tasks at stations by themselves; or they can collaborate with their peers/group members to communicate, discuss about the problems stated at stations; or students can also improve their creativity competency by drawing mind maps, making products, etc.

Students can perform tasks in pairs, in groups or individually in a flexible order. Learning stations can be open-ended or they can work toward a specific outcome or they can be tasks to review the lessons.

Learning Station - A Competency-oriented Method for Students

Learning station is a place where a group of students themselves organize learning activities (doing experiment, taking a task, dealing with a learning problem that they need to solve, etc.). Stations give students ample opportunities to use aids and materials, assure active student participation in the learning process, and thus the learnt knowledge is made permanent.

This method supports teaching abstract concepts as well as concepts that need to be repeated so that students can remember and truly understand. Learning stations can cover a single topic/lesson in a subject—with the aim of teaching new knowledge, or several independent topics such as reviewing different themes. With learning stations, students can either rotate only to stations that meet their specific learning needs or every student rotates through each station and performs all the activities. One of the greatest strengths of learning station method is that it incorporates many concepts used for differentiated instruction.

In addition to the characteristics of learning stations strategy, learning station method requires more advance planning by teachers, materials and numerous possibilities for the implementation of activities which may not be available in all schools.

Types of learning stations

There are many types of learning stations, such as exploratory station, reading station, visual station, audio/visual station, electronic station, advisory station, or stations that represent for different subjects such as Math station, Art station, Sciences station, and Communication station. It is worth mentioning that the design of these stations depends on each lesson where it can combine these different types of a model design consisting of learners, concepts, and necessary skills for students.

Autonomy is motivating. However, rigid station changes allow for little autonomy, and the learning process cannot be personalized. Ideally, learners should experience **more autonomy.** There are various ways to achieve this:

1. Learners are allowed to organize their own time.
2. Not all learning stations have to be completed.
3. Learners are allowed to divide themselves into groups and decide which stations to visit.

Learning station method can be classified by many different forms:

- Classification by forms of learning including **Closed stations**, **Open stations**, **Duplicated stations, Optional stations**.

- Classification by station locations including **Fixed stations**, **Outside stations** and **Support stations**.

- Classification according to the level and requirements of the tasks: **Optional stations**, **Compulsory stations**.

- Classification by means of teaching—learning: Stations that **using IT or AI**, stations that using experiments.

- Classification by station roles: Stations that building **new knowledge**, Stations of practicing, Stations of **reviewing**.

Students will...

Students will know how to work cooperatively in groups: Students learn themselves how to collaborate with their peers, improve their debate skills, social skills, develop critical thinking, and problem solving.

Students will develop independent work habits: Independence in studying is very important for students because they must solve different issues without teachers' explanation in detail. They only receive teacher's instruction in general and students themselves will be active in dealing tasks at different stations, develop their own speed of working.

Students will plan their time more effectively: Students can move from a station to another station after finishing a task; they do not need to sit at their seats too long to feel bored because elementary students love movement and they are more excited if they can move around stations. The movement among stations not only brings students the excitement but also give them new challenges that they need to conquer.

Students will discover creative ways of working: One task can bring students many ways to deal with and each student has his/her own solution or cognitive thinking to reach their targets.

Students will know how to explore areas of interest: Student can choose the way they like to work at a station and what station they want to go first. Students can decide by themselves their own routes.

Students have chance for additional practice in fields that they are struggled: learning stations are great places for students to focus on fields that they need to practice more. Student can spend more time at stations that they need to practice until they feel comfortable and can thoroughly apply knowledge to reality.

Students will understand evaluating techniques and know how to use evaluating methods: Students used self-assessment scale to evaluate themselves and their peers.

Process of designing lessons by using learning station method

Time: At least 100 min.!

Step 1: *Identifying purpose of a lesson that using learning station method*

Teachers need to identify purposes of the lesson they design that ensure the competency-based orientation.

Step 2: *Identifying contents that using learning stations*

Teachers design stations that based on students' different learning styles, interests, and/or levels of readiness. Each station should require students to look at the concept in a different way. This can be accomplished by thinking of each station as a specific learning style.

One station would have hands-on activities where students need to make a product or do an experiment to find out a truth or a scientific issue. Another could be a visual station, where students would quietly read or watch a video clip, complete computer research, or explore concepts visually.

Contents in a lesson that used in different stations need to be independent so that students can choose to start at any station without compromising the outcome of their tasks.

Step 3: *Identifying the numbers of stations and activity time in each station*

There are many ways to set up stations in a lesson. Numbers of stations depend on numbers of contents that teachers organize for their class. If a teacher has four contents need to be taught in a lesson, and those contents are independent of each other, he/she should create four stations that can be completed in random order.

Two to four stations are optimum for most activities. More stations can be designed when introducing or reviewing multiple concepts or if class sizes are large. When working with large classes, or when using a small number of stations, teachers need to set up multiples of the same activities and divide their classes into two or more rotating groups (such as hot wheels stations). The number of students in a group should consist of from three to four members. Divided into small group helps teachers to set roles for each member of the group so that they would be responsible for their tasks.

Step 4: *Identifying purpose of each station*

Because of the independence of content of each station, purpose of each station must be different. Those specific purposes must toward the overall goal of the lesson.

Step 5: *Designing worksheets and learning aids*

When determining how to handle student paperwork, teachers can place copies of all worksheets and directions at each station. Depending on the type of station, teachers need require a single worksheet for the group to complete, or have each student complete his or her own worksheet.

Step 6: *Setting up rules for using stations*

Teachers need to set up a list of rules and procedures for students to follow. Teachers can post this in the front of the classroom or at each station. For example, below are some rules that teachers can create:
1. Choose station that you want to go first and complete the task in that station based on your ability.
2. Do not disturb the teacher when he or she is working with other groups.
3. Do not disturb your friend if you are on individual task.

Step 7: *Summary of activities*

After station-period is done, teachers gather all students and have discussion among students to summarize what they have done in stations, what they have discovered, what they want to ask, and what they want to know more from activities.

At this step, teachers can conclude new knowledge that students need to know or summarize activities results or develop new skills to their students.

Step 8: *Assessment after conducting learning stations > Evaluation*

Teachers need to use formative and summative assessment. Assessment can be made using observation of teachers to their students during stations period. Teachers need to record activities and observe their students carefully to evaluate students' works. Teachers also use students' worksheet as a result for assessment.

AKIDE-Based Learning Stations Planning Kit

1. Planning Template: AKIDE Learning Stations

Use this table to sketch your learning station ideas before prompting ChatGPT.
One idea per AKIDE phase.

AKIDE Phase	Learning Goal	Station Idea (keywords only)
A – Arriving	Raise interest, introduce topic	
K – Knowledge Activation	Activate prior knowledge	
I – Informing	Deliver core content	
D – Deepening	Problem-solving, applying knowledge etc.	
E – Evaluating	Check understanding or reflect	

2. Prompt Templates by Faculty

Manufacturing Skills

Create a lesson with 5–6 learning stations for 2nd-year vocational students in the "Manufacturing Skills" faculty. Topic: "Quality control in the production process". The unit should follow the AKIDE model (Arriving, Knowledge Activation, Informing, Deepening, Evaluating). In the D-phase, include two problem-oriented stations: one focused on analyzing faulty parts or processes, and one on deciding corrective measures and justifying them. The tasks should include realistic industry examples, technical documents, and diagrams. Vary the social forms (individual, pair, and group work). Each station should have a number, a phase label (A–K–I–D–E), a title, a clearly described task, and a short didactic comment for the teacher.

Computing Skills

Design an AKIDE-based learning station unit for students in the "Computing" faculty. Topic: "Data protection and data security in practice". Include 6 stations: one each for Arriving and Knowledge Activation, two for Informing, and two for Deepening. The D-phase should present realistic workplace-related problems, such as insecure password usage, phishing, or handling of sensitive user data. Use a mix of text, diagrams, screenshots, short videos, or simulations. Each station should include: phase (A–K–I–D–E), station number, descriptive title, task (including expected output), and a didactic note for instructors.

Food Production

Develop a learning station unit based on the AKIDE model on "Food hygiene in hotel kitchens" for 2nd-year cooking apprentices. Include 6 stations in total: one to raise awareness (Arriving), one to activate existing knowledge (e.g., hygiene errors), two informative stations with industry standards or legal guidelines, and two D-phase stations – one of which should include a real case of hygiene violation to be analyzed. Tasks should be action-oriented and may include photos, hygiene checklists, flow diagrams, or sample logs. Each station should be clearly labeled with its AKIDE phase, station number, title, task description, and a brief instructional note.

Electrical Skills

Plan a learning station lesson using the AKIDE model for vocational students in the "Electrical Skills" faculty. Topic: "Safety rules in electrical installations". The unit should follow the AKIDE model (Arriving, Knowledge Activation, Informing, Deepening, Evaluating). Create 5–6 stations structured by AKIDE. Include one Arriving station (e.g., video of electrical accident), one to activate prior safety knowledge, two informative stations using standards tables and diagrams, and two D-phase problem-solving stations where learners must identify hazardous situations in wiring diagrams and propose safety measures. Each station should include: number, phase, title, detailed task, expected result, and a brief didactic comment.

Facility Management

Create an AKIDE-based learning station unit on "Sustainable building cleaning" for 1st-year students in the Facility Management faculty. The unit should follow the AKIDE model (Arriving, Knowledge Activation, Informing, Deepening, Evaluating). Design 6 stations: one for each of the five AKIDE phases, with one extra in the Deepening phase. Include real materials like eco-label comparisons or cleaning plans. At least one D-phase task should include a decision-making scenario (e.g., which cleaning agents to select under budget constraints). Present the stations with phase, number, title, task instructions, and a teacher-oriented didactic comment.

Automotive Skills

Create a complete AKIDE-based unit on "Diagnosing engine faults" for 2nd-year students in the Automotive Skills faculty. The unit should follow the AKIDE model (Arriving, Knowledge Activation, Informing, Deepening, Evaluating). Include 6 learning stations with practical tasks. Use real-world inputs like fault codes, engine diagrams, or service sheets. In the D-phase, include two realistic fault diagnosis problems, where students decide what the issue is and how to proceed. Use the AKIDE structure and label each station clearly with number, phase, title, task, and didactic commentary.

Woodworking Skills

Design an AKIDE-aligned station learning sequence on "Sustainable wood usage and joinery techniques" for carpentry apprentices. The unit should follow the AKIDE model (Arriving, Knowledge Activation, Informing, Deepening, Evaluating). Include hands-on elements and tool-based tasks. The Deepening phase should feature a design-and-build challenge where students plan a sustainable joint using specified materials. Include station number, phase, title, task, and teacher guidance for each.

Health Care Skills

Develop an AKIDE learning station sequence on "Basic patient hygiene and infection prevention" for healthcare trainees. The unit should follow the AKIDE model (Arriving, Knowledge Activation, Informing, Deepening, Evaluating). Use realistic hospital-based cases. Two D-phase stations should include scenario-based decision-making (e.g., how to handle a hygiene breach). Include for each station: phase, number, title, task description, and didactic note.

Refrigeration & Air Conditioning

Design a unit using AKIDE learning stations for RAC students on the topic "Common failures in refrigeration systems". The unit should follow the AKIDE model (Arriving, Knowledge Activation, Informing, Deepening, Evaluating). Include service checklists, technical diagrams, and malfunction descriptions. Two D-phase stations should require diagnosing and documenting the fault. Provide all stations with number, phase, title, task, and instructional note.

General Education

Create a detailed AKIDE-based learning station unit for first-year vocational students in the General Education Faculty. The topic is “Critical Thinking and Media Literacy in Everyday Life.” The goal is to build students' awareness and ability to question and evaluate media content critically (news, social media, advertisements). The unit should include 6 stations, clearly assigned to the phases of the AKIDE model (Arriving – Knowledge Activation – Informing – Deepening – Evaluating).

Use the following structure:
- 1x Arriving station with a thought-provoking stimulus (e.g., controversial media image, fake headline, or viral post) to spark interest and discussion.
- 1x Knowledge Activation station where learners reflect on their own media habits&assumptions.
- 2x Informing stations with input on key concepts (e.g., misinformation vs. disinformation, confirmation bias, source credibility, fact-checking techniques).
- 2x Deepening stations with realistic problem scenarios: one involving identifying manipulation techniques in a media article, and one requiring the learners to assess two conflicting sources and make a justified judgment.
- Optional: include charts, short videos, or infographics as source materials.

Please label each station with:
- AKIDE phase
- Station number
- Short title
- Precise task description (what learners must do)
- Didactic note for the instructor (what this task develops and how to support students if needed)

3. Student Learning Path Log

Students use this table to document their learning path.

Station	Topic	Date Completed	Difficulty (1-5)	Questions/Notes

Prompting Formulas and Structures

1. RISE Formula (Great for Educational Contexts)
RISE = Role – Instruction – Specification – Expected Output

Example:
"You are a vocational teacher. Give a clear step-by-step explanation on electrical conductivity for low-performing students. Use simple language and a real-life example. End with a comprehension question."

2. RTFT Formula (Good for Educational Contexts)
RTFT = Role – Task – Format – Tone

Example:
You are a hospitality trainer preparing Level 3 students for a guest interaction simulation. Write a safety protocol checklist for solar panel installation during peak heat condition. Generate a step-by-step troubleshooting guide in a numbered list for engine overheating in a Maruti Suzuki. Explain the knife-handling safety steps in plain Hindi with visual icons for low-literacy learners.

3. CAPE Formula (Ideal for Workshop or Training Tasks)
CAPE = Context – Audience – Purpose – Expectation

Example:
"Context: Skills university in India. Audience: New faculty. Purpose: Introduction to action competence-based teaching. Expectation: Create a short interactive role play with reflection questions."

4. 4W + H Prompt Structure
Who, What, Where, When, How

Use these questions to build a complete prompt.

Example:
Who am I (a teacher), what do I want (a worksheet), for whom (Food Production students), when (during hygiene introduction), how (practice-oriented, using a case study)."

5. Prompt Sandwich
Start: Role + Goal
Middle: Detailed Instructions
End: Format Instructions

Example:
"You are an AI coach. Explain in simple terms how a neural network works. Use an analogy. Explain step-by-step. Present the answer in 5 bullet points."

6. If–Then Prompt Cascades
Use conditional logic for better control.

Example:
"If the audience is under 16, use everyday language. If the topic is too technical, include an example. If the answer is too long, summarize it."

Effective Prompting for Students

What is Prompting?

Prompting refers to giving clear and precise instructions to an AI model in order to get the best possible output. The better the prompt, the more relevant and useful the response will be.

Fundamental Principles of Effective Prompting

1. Clarity & Precision

Define exactly what you want. Avoid vague terms like "something like..." or "maybe."

2. Structure & Format

Use bullet points, paragraphs, or formatting (e.g., "Create a table with 3 columns…").

3. Add Context

Tell the AI who it should be (e.g., "You are a history professor") and give background information.

4. Provide Examples

Show what you mean (e.g., "Here's an example…"). AI learns well by imitation.

5. Iterative Refinement

Ask follow-up questions if the answer isn't right. Keep improving your prompt.

Types of Prompts

Prompt Type	Description	Example
Direct Question	Straightforward question	"What is the capital of India?"
Role Prompting	Assign a role to the AI	"You are an experienced journalist. Write an article about…"
Chain-of-Thought	Break down complex tasks	"Solve this equation step-by-step."
Few-Shot Prompting	Provide examples	"Here are three good essays. Write one similar to these on…"
Zero-Shot Prompting	Clear instruction without examples	"Write me a letter in French as if I were a diplomat."

Student Exercise Example

Topic: Writing a Professional E-Mail

Task:
Write a professional cover letter in English for a job application at a German company. You are an Indian student with a degree in Computing.

Procedure:
1. Let students write a prompt **without** guidance.
2. Then, develop a better prompt **together** (with context, role, goals).
3. **Compare** both responses and discuss differences.

Tips for Lecturers
- Integrate Prompting into Existing Subjects: Whether Health Care, Computing, or Manufactoring – AI can help everywhere.
- Encourage Critical Thinking: Always ask students to reflect on AI outputs. Are sources cited? Is there bias?
- Use Project-Based Learning: Let students create presentations, summaries, research questions using AI.
- Discuss Ethics: Talk about plagiarism, copyright, and data sources used by AI models.

Summary
Good prompting = A mix of clear communication, critical thinking, and technical understanding.

Discussion & Feedback
At the end of the session, ask students:
- Which prompt worked best?
- Why was a certain prompt not effective?
- How could the prompt be improved?