# CBSE | Department of Skill Education

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# ARTIFICIAL INTELLIGENCE

## CURRICULUM FOR CLASS VIII (INSPIRE MODULE)

## OBJECTIVE

The objective of this module/curriculum is to develop a readiness for understanding and appreciating Artificial Intelligence and its application in our lives.

This module/ curriculum focuses on:

1. Helping learners understand the world of Artificial Intelligence and its applications through games, activities and multi-sensorial learning to become AI-Ready.
2. Introducing the learners to three domains of AI in an age appropriate manner.
3. Allowing the learners to construct meaning of AI through interactive participation and engaging hands-on activities.

## LEARNING OUTCOMES

Learners will be able to

1. Identify and appreciate Artificial Intelligence and describe its applications in daily life.
2. Relate, apply and reflect on the Human-Machine Interactions.
3. Identify and interact with the three domains of AI: Data, Computer Vision and Natural Language Processing.
4. Undergo assessment for analysing their progress towards acquired AI-Readiness skills.
5. Imagine, examine and reflect on the skills required for the futuristic opportunities.
6. Unleash their imagination towards smart homes and build an interactive story around it.
7. Understand the impact of Artificial Intelligence on Sustainable Development Goals to develop responsible citizenship.
8. Research and develop awareness of skills required for jobs of the future.
9. Describe the potential ethical considerations of AI.
10. Gain awareness about AI bias and AI access.
11. Develop effective communication and collaborative work skills.

## UNIT WISE DISTRIBUTION

| UNIT | NAME OF THE UNIT | DURATION | PERIODS |
|---|---|---|---|
| **1** | **EXCITE** | 02 Hours 40 Mins. | 4 Periods |
| **2** | **RELATE** | 02 Hours | 3 Periods |
| **3** | **PURPOSE** | 02 Hours | 3 Periods |
| **4** | **POSSIBILITIES** | 02 Hours | 3 Periods |
| **5** | **AI ETHICS** | 03 Hours 20 Mins. | 5 Periods |
| **TOTAL** | | **12 Hours** | **18 Periods** |

## COURSE OUTLINE

| UNIT (INSPIRE) | ACTIVITY/SESSION | LEARNING OUTCOMES |
|---|---|---|
| **1. EXCITE** | **Session**: Introduction to AI and setting up the context of the curriculum | To identify and appreciate Artificial Intelligence and describe its applications in daily life. |
| | **Ice Breaker Activity:** Dream Smart Home idea<br>Learners to design a rough layout of floor plan of their dream smart home. | |
| | **Recommended Activity: The AI Game**<br>Learners to participate in three games based on different AI domains.<br>• **Game 1: Rock, Paper and Scissors** (based on data)<br>• **Game 2: Mystery Animal** (based on Natural Language Processing - NLP)<br>• **Game 3: Emoji Scavenger Hunt** (based on Computer Vision - CV) | To relate, apply and reflect on the Human-Machine Interactions.<br><br>To identify and interact with the three domains of AI: Data, Computer Vision and Natural Language Processing. |
| | **Recommended Activity: AI Quiz** (Paper Pen/Online Quiz) | To undergo an assessment for analysing progress towards acquired AI-Readiness skills. |

| UNIT (INSPIRE) | ACTIVITY/SESSION | LEARNING OUTCOMES |
|---|---|---|
| | **Recommended Activity: To write a letter**<br>Writing a Letter to one's future self.<br><br>Learners to write a letter to self-keeping the future in context. They will describe what they have learnt so far or what they would like to learn someday | To imagine, examine and reflect on the skills required for the futuristic opportunities. |
| **2. RELATE** | **Video Session: To watch a video**<br>**I**ntroducing the concept of Smart Cities, Smart Schools and Smart Homes | Learners to relate to application of Artificial Intelligence in their daily lives. |
| | **Recommended Activity:**<br>**To write an Interactive Story**<br>Learners to draw a floor plan of a Home/School/City and write an interactive story around it using **Story Speaker** extension in Google docs. | To unleash their imagination towards smart homes and build an interactive story around it.<br><br>To relate, apply and reflect on the Human-Machine Interactions. |
| **3. PURPOSE** | **Session:** Introduction to **sustainable development goals** | To understand the impact of Artificial Intelligence on Sustainable Development Goals to develop responsible citizenship. |
| | **Recommended Activity: Go Goals Board Game**<br>• Learners to answer questions on Sustainable Development Goals | |
| **4. POSSIBILITIES** | **Session: Theme-based research and Case Studies**<br>• Learners will listen to various case-studies of inspiring start-ups, companies or communities where AI has been involved in real-life.<br><br>• Learners will be allotted a theme around which they need to search for present AI trends and have to visualise the future of AI in and around their respective theme. | To research and develop awareness of skills required for jobs of the future.<br><br>To imagine, examine and reflect on the skills required for the futuristic opportunities.<br><br>To develop effective communication and collaborative work skills. |

| UNIT (INSPIRE) | ACTIVITY/SESSION | LEARNING OUTCOMES |
|---|---|---|
| | **Recommended Activity: Job Ad Creating activity**<br>• Learners to create a job advertisement for a firm describing the nature of job available and the skill-set required for it 10 years down the line. They need to figure out how AI is going to transform the nature of jobs and create the Ad accordingly. | |
| **5. AI ETHICS** | **Video Session: Discussing about AI Ethics** | To understand and reflect on the ethical issues around AI. |
| | **Recommended Activity: Ethics Awareness**<br>• Students play the role of major stakeholders and they have to decide what is ethical and what is not for a given scenario. | |
| | **Session: AI Bias and AI Access**<br>• Discussing about the possible bias in data collection<br>• Discussing about the implications of AI technology | To gain awareness around AI bias and AI access. |
| | **Recommended Activity: Balloon Debate**<br>• Students divide in teams of 3 and 2 teams are given same theme. One team goes in affirmation to AI for their section while the other one goes against it.<br>• They have to come up with their points as to why AI is beneficial/harmful for the society. | To let the students analyse the advantages and disadvantages of Artificial Intelligence. |

## SKILLS TO BE DEVELOPED