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SCO INTERNATIONAL OLYMPIAD

CLASS 6 AI OLYMPIAD OFFICIAL SYLLABUS

A student, teacher, school, and parent friendly syllabus guide

Designed from Class 6 AI literacy pathways and aligned with SCO's platform flow for guided preparation, practice, reporting, and responsible future-ready learning.

- age-fit AI literacy guidance for Grade 6 / upper-primary learners globally
- question pathways across AI, machine learning, data, patterns, privacy, ethics, and real-life applications
- preparation roadmap, school implementation ideas, and future-ready skill framing for responsible AI learning

AI	Machine Learning	Data	Patterns	Real-Life AI
Privacy	Ethics	Safety	Projects	Practice

SCO International Artificial Intelligence Olympiad - Class 6 Official Syllabus

This syllabus introduces Class 6 learners to Artificial Intelligence through observation, simple pattern recognition, safe data handling, real-life examples, and age-appropriate mini activities. It is designed for schools, teachers, parents, and students who want a clear, practical pathway into responsible AI learning.

Field	Details
Exam Name	SCO International Artificial Intelligence Olympiad
Level	Level 1
Classes	Classes 5 to 6
Class Focus	Class 6 / Grade 6
Duration	60 minutes
Type of Exam	Objective Type
Number of Questions	35 questions
Sections	4 sections
Eligibility	Classes 5 to 6
Choice of Dates	Cycle 1, Cycle 2, Cycle 3

Exam Sections

Section	Learning Focus
1 - Understanding AI and Machine Learning	Basic concepts of Artificial Intelligence and machine learning using everyday examples.
2 - Data and Pattern Recognition	Introduction to data types, clean data, simple patterns, and early prediction thinking.
3 - Real-Life AI Examples	AI in transportation, communication, entertainment, education, healthcare, and environment.
4 - Achievers Section	Basic data handling tasks, privacy scenarios, ethical reasoning, and simple machine-learning games.

Chapter-Wise Syllabus

Chapter 1: Understanding AI

Students identify what AI is, where it appears in everyday life, and how it helps people solve simple problems.

- Explain AI in simple words using everyday examples.
- Identify AI use in school, home, communication, transport, entertainment, and learning apps.
- Understand that AI supports people but does not replace human responsibility.

Chapter 2: Machine Learning

Students learn that machine learning uses examples to find patterns, make predictions, and improve with useful data.

- Distinguish supervised and unsupervised learning through simple examples.
- Describe how models learn from examples and why testing is needed.
- Recognize accuracy, overfitting, and basic prediction errors at an age-appropriate level.

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Chapter 3: Data Around Us

Students observe data in daily life, understand basic data types, and learn why clean, safe, and fair data matters.

- Identify data around us such as numbers, text, images, and choices.
- Understand clean data, missing values, duplicates, and simple pattern recognition.
- Explain privacy, consent, and responsible handling of personal information.

What Students Will Learn

- AI is a tool that uses data and instructions to support decision-making and problem-solving.
- Machine learning systems need examples, features, labels, training, testing, and human checking.
- Data must be collected fairly and used safely, especially when it contains personal information.
- Real-life AI can help in learning, transport, healthcare support, environment monitoring, and entertainment recommendations.
- Responsible AI means fairness, privacy, transparency, consent, safety, and verification.

Teacher and School Implementation Guidance

Area	Recommended Practice
Classroom Approach	Use real-life examples such as recommendation apps, smart speakers, traffic maps, and learning platforms before introducing technical vocabulary.
Activity Ideas	Use card sorting, pattern games, simple data tables, picture classification, and “is this safe to share?” privacy discussions.
Assessment Readiness	Prepare students through concept questions, scenario-based MCQs, simple data tables, and short reasoning around fairness and privacy.
Responsible Use	Encourage students to check AI answers, avoid sharing personal data, and ask a teacher or guardian when AI output seems unsafe or confusing.

Assessment Blueprint

Section	Suggested Weight	Focus
Understanding AI and ML	10 questions	Core concepts and supervised/unsupervised examples
Data and Pattern Recognition	10 questions	Data types, quality, patterns, train-test thinking
Real-Life AI Examples	10 questions	Applications in transport, communication, education, healthcare, environment
Achievers Section	5 questions	Privacy, ethics, mini projects, accuracy and reasoning

Preparation Roadmap

Week 1: Understand AI in everyday life and list examples from school/home.

Week 2: Practice supervised vs unsupervised learning using labeled and unlabeled cards.

Week 3: Work with small data tables, identify missing values, duplicates, and simple patterns.

Week 4: Discuss privacy, consent, deepfakes, and safe use of AI tools.

Week 5: Solve mixed MCQs and complete a mini activity such as a simple recommendation chart.

Week 6: Revise key terms and practice Achievers reasoning questions.

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Glossary for Quick Revision

Term	Meaning
AI	A technology that helps computers perform tasks that usually need human-like intelligence.
Machine Learning	A way for computers to learn patterns from examples.
Data	Information such as numbers, words, images, choices, or sounds.
Label	The correct answer attached to an example in supervised learning.
Training	The process of helping a model learn from examples.
Testing	Checking the model on new examples.
Overfitting	When a model memorizes practice examples but performs poorly on new ones.
Privacy	Protecting personal information and using it with consent and care.