

ATAL SUMMER CAMP REPORT 2025-2026

Name of School: AMS P OBUL REDDY PUBLIC SCHOOL

Date of Camp: 1st may 2025-15th may 2025

Venue: Atal Tinkering Lab

Participants: Students of Grades VI to XII

Coordinator: K Yuva santhi, ATL Incharge

Objective:

The aim of the ATAL Summer Camp was to foster curiosity, creativity, and innovation among students through hands-on learning with **Quarky** and **micro bit**—two powerful tools for introducing students to robotics, coding, and AI.

Day 1&2: Introduction to ATL & Design Thinking

- Orientation session on the ATL mission and innovation goals.
- Brief on the design thinking process: Empathize – Define – Ideate – Prototype – Test.
- Ice-breaking activities to build teamwork.

Day 3&4: Getting Started with Quarky

- Introduction to Quarky – a compact AI and robotics development board.
- Understanding hardware components: sensors, actuators, and AI modules.
- Hands-on session on Block-based coding using PictoBlox.
- Students created basic projects like line follower bots and LED blinkers.

Day 5&6: Exploring Artificial Intelligence with Quarky

- Students implemented real-time face detection and emotion recognition using Quarky.

Day 7&8: Introduction to micro bit

- Overview of the micro:bit: onboard sensors, display, and Bluetooth.
- Programming using Microsoft MakeCode Editor.
- Students built interactive projects like digital dice, temperature sensors, and step counters.

Day 9,10&11: Integration & Innovation Challenge

- Students formed teams and picked problems from daily life.
- They designed and built a working prototype using either Quarky or micro:bit.
- Projects included: AI delivery bot, Hand gesture bot, card recognition bot, emergency light, calculator, earthquake detector, medical alarm, and micro recorder.

Day 12: Presentation & Showcase

- Teams presented their projects to a invited guests.

Outcomes:

- Enhanced understanding of electronics, coding, and AI concepts.
- Development of problem-solving, teamwork, and presentation skills.
- Sparked interest in STEM careers among students.

Conclusion:

The ATAL Summer Camp successfully introduced students to future-ready technologies through engaging activities with **Quarky and micro bit**. It was a vibrant platform for young innovators to learn, experiment, and present their ideas. The camp truly embodied the ATL vision of creating a generation of thinkers, tinkerers, and doers.



