



# Standard Teachease Plan

## FOR GRADES 7-9



# ICT and AI for middle school

## Standardised Teachease Development Plan

By Code School Finland

### Background

This document describes the **Teachease™** service tailored to **grades 3-6**.

The service offers **teacher training, teaching materials, and on-going support** for implementing a high-quality digital skills school programme that offers a coherent learning path for students regardless of their grade. Teachers do not need to have any prior experience of coding or robotics to undertake the training the plan includes.

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## Recommended content for grades 7-9

For an optimal and pedagogically sound learning path for grades 3-6 we recommend the **ICT and AI for middle school** package that contains three learning modules.

| Age group/<br>Grades | Package name                        | Description  | Learning modules   |
|----------------------|-------------------------------------|--|--|
| 7-9                  | <b>ICT and AI for middle school</b> | <i>ICT and AI oriented dive into the world of technology and coding.</i><br><i>Students use Scratch and Python for the coding tasks.</i><br><i>Work life skills, entrepreneurship and critical thinking are highly promoted.</i> | <b>7 AI Introduction</b><br>8 Solutions & Syntax<br>9 ICT Introduction |

## Implementation plan

We suggest a gradual implementation by introducing **one new learning module** each year. This approach minimises the effort required from teachers while offering a motivational learning path for all students regardless of which grade they are on.

|                                 | 2023-2024 | 2024-2025 | 2025-2026 |
|---------------------------------|-----------|-----------|-----------|
| <b>7 AI Introduction</b>        | 7-9       | 7         | 7         |
| <b>8 Solutions &amp; Syntax</b> |           | 8-9       | 8         |
| <b>9 ICT Introduction</b>       |           |           | 9         |

*During the first year of implementation, all students in grades 7-9 study AI Introduction. New learning modules are then introduced in the following years to provide a logical and progressive learning path.*

## On-going services

For each school year, a school takes out a **Teachease subscription**. The subscription covers training and all the necessary materials for rolling out new courses every year. In addition, teachers can talk to our support team and get personal assistance for any question or challenge.

After having an active Teachease subscription for at least one year, a school has the option of switching to a **licence-only subscription**. It allows teachers to keep using the courses implemented so far, but they will no longer get any new content or support.

| Service feature                                    | Teachease subscription *) | Licence-only subscription **) |
|--|---------------------------|-------------------------------|
| Number of teachers                                 | Up to 20                  | Up to 20                      |
| Teachers' online courses                           | Included                  | No                            |
| Teacher training with live Code School instructors | Included                  | No                            |
| Training recordings                                | Included                  | No                            |
| Student books                                      | Included                  | Yes                           |
| Teacher materials                                  | Included                  | Yes                           |
| Assessment tools                                   | Included                  | Yes                           |
| Coding clinics                                     | Two per year              | No                            |
| Remote coding classes                              | Two per year              | No                            |
| Online support                                     | Weekdays office hours     | No                            |
| Digital badges and certificates                    | Included                  | No                            |

\*) Renewed annually.

\*\*) Available after first year of service

**Pricing for subscription options is available upon request.**

## Appendix

### 1: Code School Finland's curriculum synopsis

These are the learning goals for grades 7-9 in Code School Finland's curriculum:

#### **Goals for grades 7-9:**

Students explore and study the fundamentals of AI in a real world context. Students learn the fundamentals of textual coding in Python. Motivational methods such as pair work, simulating real life cases and soft gamification are used to enhance the learning.

Students create a portfolio about computer systems, internet and privacy, focusing on their own interest while learning from each other.

#### **Comments:**

*Even though Scratch seems to be for younger children only, it really scales well to higher grades too. For example Scratch's web camera extension allows for machine vision implementations without any additional applications.*

## Appendix

### 2: Learning modules and descriptions

#### Grade 7

#### Programming, AI



#### AI Introduction

24  
lessons

AI

Create **machine vision and AR** applications.

**Keywords:** Scratch, programming Function, modular, AI, machine vision, processing, probability, game development, creativity, AR

#### Description:

Hands-on introduction into Artificial Intelligence (AI) for intermediate programmers. Students learn basic concepts of AI and learn to understand how AI is used in everyday life. Students create logical patterns for an **object recognition app** and develop an **AR game**.

#### Promotes:

- Fundamentals of using coding in the context of AI while leaving space for creativity and exploration
- Design thinking, collaboration, work life skills, creativity, exploration, and self-improvement
- Using functions, variables, loops, and conditional statements to measure probabilities (AI)



#### Grade 8

#### Programming, Work life skills



#### Solutions & Syntax

24  
lessons

Program solutions in **a working life context**.

**Keywords:** Python, data type, operator, textual programming, software, automation, work life skills

#### Description:

This course introduces textual programming and allows for practising work life skills in a fun and innovative way. Students become employees of a software company and fulfil customer needs by designing and implementing **utility programmes and automation on Python**.

#### Promotes:

- Skills in structuring information and automating simple processes
- Work life skills, entrepreneurship skills, collaboration, setting long-term and short term goals individually and in group
- Versatile use of basic and advanced computational thinking concepts and practices in textual programming



## Grade 9

## ICT, digital competences



## ICT Introduction

24  
lessons

AI

Explore the **ICT landscape** in depth through portfolio projects..

**Keywords:** Internet, computer, security, privacy, information, communication

**Description:**

ICT Introduction module offers a comprehensive look into the impact of technology, computer systems, networks, security, data, and AI. The focus here is on understanding how technology shapes our society and how to navigate the universe of information and the uncertainty it causes.

For the project, students compile a **Computers, internet and security -portfolio**.

**Promotes:**

- Comprehensively understanding digital landscapes from the viewpoint of systems, networking, security, data, and AI.
- Understanding the potential benefits and dangers of the current and future technologies
- Formulating requirements for expert knowledge



# Our partner schools' feedback

The implementation of Teachease has been smoother than anticipated, especially when it comes to teacher qualification. It was a hands-off experience for management.

**Westlake International School, MALAYSIA**

The training is very comprehensive for all abilities. The teacher trainers are very friendly and approachable.

**Grade 4 community school teachers, IRELAND**

Code School Finland and their materials really arise students' interest in programming in an educational and inspiring way.

**IT Teacher, Backaskolan, SWEDEN**

Students work on their project by themselves with minimal instructions from the teachers. The materials make it possible for the students to learn by doing through the well-designed creative projects.

**Ritsumeikan Moriyama High School, JAPAN**

