

Lesson Plan: ML Concepts (Grade 7–8)

Teacher Training Guide · Module 4 of 15 · CHERIEDU Academy

Lesson Overview

Field	Details
Grade	Grade 7 & 8
Duration	80 minutes (2 periods)
Topic	How AI learns — Machine Learning basics with Teachable Machine
Objective	Students build and test their own image classifier
Materials	Laptops/tablets with camera, Google accounts, internet

Period 1: Concepts (40 min)

Time	Activity
0–10	Review: What is data? Quick quiz on Module 1 concepts.
10–25	Explain: Training vs Testing, Supervised vs Unsupervised learning
25–35	Demo: Show a trained Teachable Machine model live.
35–40	Q&A: Students predict — will the model be right or wrong?

Period 2: Hands-On Lab (40 min)

Time	Activity
0–5	Students open teachablemachine.withgoogle.com
5–20	Students capture 50 images for Class 1 and Class 2 of their choice
20–30	Students click "Train Model" and wait for results.
30–38	Students test their model and record accuracy percentages.
38–40	Class discussion: Who got the highest accuracy? Why?

Key Questions to Guide Discussion

- "What happens if you only give the AI 10 photos instead of 50?"
- "Why did your friend's model work better than yours?"
- "How could this same technique be used in a hospital or factory?"

Assessment Rubric

Criteria	Excellent (4)	Good (3)	Developing (2)
Model accuracy	>85%	70–85%	<70%

Explanation

Explains training/testing
clearly

Explains with some prompting

Cannot explain process

Experiment design

Added a 3rd class
independently

Completed base task

Needed significant help

