AP COMPUTER SCIENCE PRINCIPLES · MASTER GRADING KIT

Unit 1 — Digital Information

Big Idea: DAT (Data) | **Code.org unit:** Unit 1 | **Teacher:** _____ **Period:** _____

This is your one-page map of everything graded in Unit 1: how many points, how it's weighted, and which AP learning objective it builds toward. Use it alongside the answer keys (folder 02) and the feedback bank (folder 05).

1 · Graded items and point values

Graded item	Points	Category	AP objective it targets
Binary & Number Systems worksheet	20	Practice	DAT-1.C, DAT-1.D — bits, binary↔decimal, place value
Encoding by hand (text / B&W / color images)	20	Practice	DAT-1.A, DAT-1.C — representing data with bits
Compression (lossless vs. lossy)	15	Practice	DAT-1.D — trade-offs of compression
Overflow & round-off short response	10	Practice	DAT-1.D — limits of number representation
Unit 1 concept quiz (25 Q)	25	Assessment	All DAT-1 objectives (AP-style MCQ)
Digital Information Dilemma — Handwritten Brief AI-PROOF *replaces Code.org "Digital Information Dilemmas" Practice PT*	40	Performance	DAT-2.E — beneficial/harmful effects; computing innovations & data
Unit total	**130**		

Why the Dilemma task is replaced: the original Code.org write-up is a research-and-type response — trivially completed by pasting the prompt into an AI. The AI-proof replacement (folder 03) is written in class, by hand, and requires cited sources plus a local/personal example and a 60-second oral defense. Same AP objective, no shortcut.

2 · Suggested category weights (gradebook)

Category	Weight	What's in it for Unit 1
Practice (formative)	30%	Worksheets, encoding, compression, overflow
Assessment	35%	Unit 1 concept quiz

Category	Weight	What's in it for Unit 1
Performance task	35%	Handwritten Digital Information Dilemma Brief

> These weights are pre-loaded in the gradebook CSV (folder 04). Change them in one cell and every student's grade recalculates.

3 · AP learning-objective coverage (put this on the wall)

Track this per class. If the class average on any row is below 70%, that objective needs re-teaching *before* the AP exam — Unit 1 objectives reappear all year.

Objective	What students must be able to do	Assessed by
DAT-1.A	Explain how data can be represented using bits	Encoding, quiz
DAT-1.C	Explain the consequences of using bits to represent data (analog vs. digital)	Encoding, quiz
DAT-1.D	Compare data-representation choices: binary↔decimal, overflow, round-off, lossless vs. lossy compression	Binary WS, compression, overflow, quiz
DAT-2.E	Describe the beneficial and harmful effects of a computing innovation's use of data	Handwritten Dilemma Brief

4 · Grading order that saves time

1. **Quiz first** — it's objective and tells you instantly where the class stands. Enter scores, then eyeball the per-question tally to spot the weakest objective.
2. **Skills work by station** — grade all binary worksheets, then all encoding, then all compression. Grading one item across the whole stack is 2–3× faster than grading one student's whole packet.
3. **Handwritten Brief last**, with the interactive grader (folder 06) open — click criteria, paste generated feedback. Budget ~4 min/student.
