

4565: Computing Foundations for a Digital Age

Unit 5

Day 1 Lesson Plan: What Is Ethics in Tech?

Objective:

Students will define ethics and explore why ethics matter in computing.

Word Bytes (Key Terms & Definitions)

- **Ethics** – A system of moral principles that guide decisions about what is right or fair in a given situation.
- **Unintended Consequences** – Results of a decision or action that weren't planned and may have unexpected impact.
- **Ethical Dilemma** – A situation where someone must choose between two or more options, each with potential benefits or harms.

Materials

- Printed or projected real-world tech headlines
 - Optional: student journal or notebook for project reflection
 - Space for movement (optional ethics spectrum activity)
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Warm-Up: Tech Dilemmas – Would You Rather?

- Pose a few “Would you rather?” questions and invite students to respond, then discuss:
 - ☐ Would you rather give up your smartphone for a year or share your browsing history with the world?
 - ☐ Would you rather have a chip implanted for convenience or carry a dozen passwords?

Lead a brief class discussion about how each choice involves trade-offs. Connect this to the concept of ethical decisions.

Mini-Lesson: What *Is* Ethics?

Step 1: Framing the Concept

Ask students:

- “Have you ever had to make a decision where *both* choices had upsides and downsides?”

Give students time to reflect and pair-share. Then define ethics:

- **Ethics** = a system of moral principles that help us decide what’s fair, responsible, and just.
- Emphasize: Ethics doesn’t always have a clear “right” answer—it’s about making thoughtful choices.

Step 2: Connecting to Technology

Ask:

- “Why do you think ethics matters when it comes to technology?”

Guide the conversation toward understanding that:

- Tech decisions impact real people.
- Designers and users both make choices that have consequences.
- Sometimes there are **unintended consequences**—outcomes no one meant to cause.

Example:

- Facial recognition may work better on light-skinned faces than dark-skinned ones.
- Even if unintentional, it causes harm. That’s an ethical issue.

Step 3: Defining Key Terms with Examples

Term	Description	Example
Ethics	Deciding what’s fair, responsible, and just	Should schools use AI to monitor students for cheating?
Unintended Consequences	Side effects that weren’t intended	A fitness app leaks user location data
Ethical Dilemma	A tough choice where each option has risks	Sharing user data to stop a crime vs. protecting privacy

Invite students to share more examples from their own experience or the news.

Step 4: Check for Understanding

Prompt:

- “If you were designing a new app for teens, what ethical questions should you think about before launching it?”

Encourage student responses like:

- Should it collect user data?
- Is it accessible for people with disabilities?
- Could it be addictive?

Optional Extension (if time allows):

Ethics Spectrum – Read a prompt aloud and have students move to spots along a line (Strongly Agree to Strongly Disagree). Discuss choices.

Example prompt:

- “It’s okay for schools to monitor students’ online activity outside of school hours.”
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Activity: Real Headlines, Real Decisions

Display 2–3 headlines for student discussion, such as:

- “School District Uses Facial Recognition for Safety”
- “TikTok Banned on Government Devices”
- “ChatGPT Raises Concerns in Classrooms”

Have students work in small groups or partners to discuss:

- What is the ethical dilemma here?
- Who is affected?
- What are the risks or benefits?

Groups share out with the class.

Project Launch: Ethical Technology Case Study

Introduce the unit project:

- “Throughout this unit, you’ll investigate real-world technology and explore its ethical implications. You’ll learn about bias, privacy, accessibility, and more—then take a stance on whether your tech is truly ethical.”
- Show a sample or mini case (e.g., facial recognition and privacy). Reassure students they don’t need to pick a topic today—but should start thinking.

Optional Student Journal Prompt:

- List 2–3 technologies you use that might raise ethical questions.
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Exit Ticket

- What’s one tech-related decision you’ve made that involved ethics—even a small one?

- Students can write about anything from posting online to using apps or choosing settings.

Word Bytes (Student-Friendly Examples)

- **Ethics** – I chose not to repost a video because it showed someone in a vulnerable moment.
- **Unintended Consequences** – I used a filter that accidentally made a friend feel excluded.
- **Ethical Dilemma** – I had to choose between telling on a friend for cheating or staying quiet.