

# Lesson 2

# **Trending or Toxic? The Hidden Effects of Social Media**



# **Objectives**

#### Students will:

- Activate prior knowledge and personal connections to social media.
- Refine their understanding of social media's impact by exploring multiple perspectives and analyzing diverse experiences.
- Practice framing complex social issues into clear, actionable problem statements as part of the design thinking process.
- Apply skills for the future, including empathy, collaboration, and communication, to establish strong team dynamics and align on a project purpose.

#### **Skills for the Future**

- Building Relationships
- Collaboration
- Communication

### **Project Word Wall**

- Problem definition
- Argumentation
- Inquire
- Algorithm bias
- Echo chambers
- Disinformation
- Engagement metrics

#### Resources

#### General

- <u>Teacher Resource Guide</u>
- Lesson 2 teacher presentation
- Student portfolio
- Whiteboard
- Posterboard or digital board (such as <u>Padlet</u> or <u>Mentimeter</u>)
- Four Corners signs labeled "Strongly Agree,"
   "Strongly Disagree," "Agree," and "Disagree"

#### **Videos**

- The Social Dilemma Bonus Clip: The Discrimination Dilemma (3:36)
- Optional Activity:
  - Fact vs. Fake: A Quick Lesson in Media Literacy | CBC Kids (1:49)
  - Examining Headlines: Facts vs. Fiction (12:14)
  - Sort Fact from Fiction Online with Lateral Reading (3:47)



- AnswerGarden
- Question Corners signs labeled "Comparison Culture and Self-Image," "Misinformation and Fake News," "Cyberbullying and Online Harassment," and "Digital Well-Being and Mental Health"



# **Lesson Plan Summary: The Five Es**

# Engage: Warm-Up Activity: Quickwrite and A/B Partners (Go to section)

- 1. Quickwrite:
  - What specific issue related to social media's influence stands out to me?
  - How have I seen this issue play out in real life (personally, in my community, or online)?
  - Who is most affected by this issue, and why does it matter?
  - What makes this issue challenging to solve?
- A/B Partners
- 3. Whole-Class Debrief

# Explore: Four Corners and Class Discussions (Go to section)

- 1. Four Corners Activity:
  - Create four signs labeled "Strongly Agree," "Strongly Disagree," "Agree," and "Disagree."
  - Choose a statement:
    - "Social media helps build real connections."
    - "Social media affects how I see myself."
    - "The benefits of social media outweigh the negatives."
    - o "Social media increases awareness about important issues."
- 2. Whole-Class Debrief:
  - Live word cloud reflection in <u>AnswerGarden</u> or <u>Padlet</u>

# Explain: Case Study Analysis (Go to section)

- Watch and Discuss
  - The Social Dilemma Bonus Clip: The Discrimination Dilemma (3:36)
- 2. Individual Reflection
  - What was the most eye-opening part of this clip?
  - Did anything feel eerily familiar? Have you noticed algorithms shaping your own experiences?
  - What are the possible consequences of these unseen forces?
- 3. Small Group Discussion: Breaking It Down
  - What stood out to you the most in this video?



- Did anything surprise you?
- Do you see algorithms shaping your own social media experience? How?
- How do influencers, trends, and algorithms affect how we see ourselves?
- Whole-Class Debrief

# Elaborate: Project Launch and Team Formation (Go to section)

- 1. Introduce the Project Scope and Deliverables
- 2. Clarify Objectives and Expectations
  - What specific problem are you addressing?
  - What's your unique creative approach?
  - Who is your audience, and how will you engage them?

# Evaluate: Exit Ticket, Team Formation, and Brainstorming (Go to section)

- 1. Question Corners: Interest-Based Grouping
  - Create four signs:
    - Comparison Culture and Self-Image
    - Misinformation and Fake News
    - Cyberbullying and Online Harassment
    - Digital Well-Being and Mental Health
- 2. Form Teams
- 3. Assign Roles: Teamwork in Action
  - Researcher
  - Designer
  - Presenter
  - Project Manager
- 4. Optional Activity:
  - o Fact vs. Fake: A Quick Lesson in Media Literacy | CBC Kids (1:49)
  - o Examining Headlines: Facts vs. Fiction (12:14)
  - Sort Fact from Fiction Online with Lateral Reading (3:47)



### Introduction

Imagine waking up and the first thing you do is check your phone—scrolling through endless posts, updates, and notifications. Before you've even gotten out of bed, social media has already shaped your mood, your thoughts, and maybe even how you see yourself. But is social media the real problem, or is it the way we use it? Today, we're diving into the hidden challenges of social media and thinking critically about its impact. After reflecting on these issues, you'll team up with classmates to choose a focus area and develop a creative project that raises awareness, offers solutions, or inspires positive change. The first step? Identifying what stands out to you the most and why it matters.

# **Standards and Practices**

#### Common Core Standards: Grades 9-10

- RI.9–10.1: Cite strong and thorough textual evidence to support analysis of what the text says explicitly, and inferences drawn from it.
- RI.9–10.2: Determine a central idea of a text and analyze its development over the course of the text, including how it emerges and is shaped by details.
- **W.9–10.2:** Write informative/explanatory texts to examine and convey complex ideas, concepts, and information clearly.
- W.9–10.7: Conduct short and sustained research projects to answer a question or solve a problem.
- SL.9–10.1: Initiate and participate effectively in a range of collaborative discussions, building on others'
  ideas and expressing their own clearly.

#### Common Core Standards: Grades 11-12

- RI.11–12.1: Cite strong and thorough textual evidence to support analysis of what the text says explicitly, and inferences drawn from it.
- **W.11–12.5:** Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach.
- W.11–12.7: Conduct short and sustained research projects to answer a question or solve a problem.
- **SL.11–12.1:** Initiate and participate effectively in a range of collaborative discussions, building on others' ideas and expressing their own clearly.
- L.11–12.6: Acquire and use academic and domain-specific words and phrases sufficient for reading, writing, speaking, and listening at the college and career readiness level.

#### **Next Generation Science Standards**

• **HS-ETS1-1:** Analyze a major global challenge to specify qualitative and quantitative criteria and constraints for solutions.

# **International Society for Technology in Education**

• **Empowered Learner (1a, 1c):** Students articulate and set personal learning goals, develop strategies leveraging technology to achieve them, and reflect on the learning process.



# **Teacher Preparation**

# **Preparation**

#### Differentiation Strategies for Grades 9–12

High school students bring diverse levels of experience with digital tools, iterative design, and peer feedback. Use the strategies at the end of this lesson plan to manage cognitive load, scaffold learning, and increase engagement during prototyping.

### **About Lesson Structure and Pacing**

Each lesson in this unit is organized using the **5E model—Engage, Explore, Explain, Elaborate, and Evaluate—**a research-based framework that encourages inquiry, collaboration, and meaningful reflection. While initially developed for science education, this model translates seamlessly to project-based learning, guiding students through a cycle of curiosity, investigation, creativity, and revision.

To support implementation, we've included teacher scripts for each step of the 5Es. These scripts provide helpful context, model language, and classroom guidance while leaving space for your own voice and facilitation style.

You'll also find suggested times for each activity within the lesson. These are not fixed durations but rather planning tools to help you anticipate lesson flow. We have intentionally not assigned a total time for the full lesson, as each classroom is unique, and the PBL process is flexible.

Some classes may need more time to unpack a complex issue, dive deeper into research, or experiment with prototypes. Others may move more quickly through reflection or brainstorming. We encourage you to adjust the pacing to fit your students' needs, allowing them the time and space to think critically, collaborate meaningfully, and bring their ideas to life.

### **Building on the Word Wall**

- Before each lesson, review existing terms and challenge students to use them in class discussions.
- Encourage students to add relevant key terms from their research and discussions. See the project word wall terms at the end of the lesson for suggestions.
- Add new terms that are integrated into the lesson to your project word wall.

Essential Question: How does social media shape our self-perception, relationships, and understanding of the world, and how can we use it in a way that supports well-being and positive change?

# Engage (Back to summary)

# Warm-Up Activity: Quickwrite and A/B Partners

**Teacher Script:** In lesson one, we explored how social media influences the way we perceive ourselves and others. But is social media the real problem, or is it how we use it? Who is most impacted, and how might we change the way social media affects mental health? Think about the specific challenges social media



presents—comparison culture, misinformation, cyberbullying, digital well-being, social validation, or another key issue you've noticed. In today's quickwrite, identify one key theme that stands out to you and why you think it matters.

- 1. Quickwrite (3–4 min.): Set a timer and allow students 3–4 min. to respond to the prompts in their student portfolios.
  - Guiding Questions to Support Writing:
    - o What specific issue related to social media's influence stands out to me?
    - o How have I seen this issue play out in real life (personally, in my community, or online)?
    - o Who is most affected by this issue, and why does it matter?
    - o What makes this issue challenging to solve?
- 2. A/B Partner Discussion (6 min. total): Pair up students in an A/B partner format for structured discussion:
  - Partner A speaks (1 min.): Partner A shares their insights from the quickwrite while Partner B listens actively, asking clarifying questions if needed.
  - Partner B speaks (1 min.): Partner B shares their insights, and Partner A listens actively.
  - Both partners speak freely and ask any questions (2 min.).
- 3. Whole-Class Debrief (5 min., optional): Ask a few students to share key takeaways from their discussion and note emerging themes on the board.

#### Explore (Back to summary)

#### **Four Corners and Class Discussions**

**Teacher Script:** We've just explored different themes about social media's influence on our lives. Now, it's time to take a step back and think about how people experience these issues differently. To design solutions, we first need to understand the problem from multiple perspectives. Today, we'll challenge our thinking by responding to statements about social media's impact, discussing our views, and identifying common experiences. The goal is to identify and shape the key challenges we want to focus on for our project.

- 1. Introduce the Activity: Explain to students that they will respond to a statement by moving to a corner that best reflects their opinion:
  - Strongly Agree
  - Agree
  - Disagree
  - Strongly Disagree
- 2. Display the Statement: Choose one if you are constrained by time or rotate through a few if time allows.
  - "Social media helps build real connections."
  - "Social media affects how I see myself."



- "The benefits of social media outweigh the negatives."
- "Social media increases awareness about important issues."
- Choose a Corner and Discuss:
  - Instruct students to move to the corner that best reflects their stance.
  - Have students engage in small group discussions, explaining why they chose their positions. Encourage students to share personal experiences, examples, or research to support their view.
  - Whole-Class Debrief:
    - Call on one or two students from different corners to explain their reasoning.
    - Ask students: Did anyone's perspective change after hearing others, and why?
- 4. Live Word Cloud Reflection:
  - Use AnswerGarden (or see alternative tool options below) to create a live word cloud.
  - Prompt: Submit one or two words summarizing the most important takeaway from your discussion.
  - Display and discuss patterns in the word cloud:
    - O What themes do we see?
    - o Are there any conflicting ideas?
    - o How does this shape our understanding of the problem?
  - Alternative tools: If students have access to Adobe Express for Education, Canva for Education, or Google Slides, consider having them summarize their takeaways by creating a visual collage to represent their thinking.
- Connect to Design Thinking: Defining the Problem

**Teacher Script:** As designers, we need to fully understand the problem before we can solve it. This activity helped us see how people experience social media differently. Some of us view it as positive, while others view it as negative, and many fall somewhere in between. The key takeaway? Social media's impact is complex. This is where our project work begins—digging deeper into these challenges and finding ways to design solutions that matter.

### Explain (Back to summary)

#### **Case Study Analysis**

Set the Stage: Framing the Activity

**Teacher Script:** We've discussed the impact of social media and explored different perspectives. Now, let's dive deeper into a real-world case study. We'll watch a short clip from The Social Dilemma, which reveals how social media algorithms shape behavior and self-perception. As you watch, consider: Is this problem bigger than we realize? How does it connect to the themes we've discussed?

2. Watch and Discuss:



- The Social Dilemma Bonus Clip: The Discrimination Dilemma (3:36)
- The clip highlights:
  - How algorithms control what we see.
  - How algorithms shape self-perception and reinforce biases.
  - Why platforms design features to maximize engagement.
- 3. Individual Reflection to Capture Initial Thoughts: Have students jot down reactions, surprising moments, or personal connections in their student portfolio while watching the video.
  - Guiding Reflection Prompts:
    - O What was the most eye-opening part of this clip?
    - Did anything feel eerily familiar? Have you noticed algorithms shaping your own experiences?
    - o What are the possible consequences of these unseen forces?
- 4. Small Group Discussion: Breaking It Down
  - Form groups of three to four students, and have them discuss using these questions:
    - What stood out to you the most in this video?
    - Did anything surprise you?
    - Do you see algorithms shaping your own social media experience? How?
    - How do influencers, trends, and algorithms affect how we see ourselves?
- 5. Whole-Class Debrief: Share Key Insights
  - Invite two to three groups to share their takeaways.
  - Synthesize emerging themes on the board or using a digital tool (Figjam, Padlet, etc.).
    - Do students agree or disagree with the video's message? Why?
    - O What patterns do we notice in responses?
    - o How does this connect to our project's focus?
- 6. Connect to Design Thinking: From Observation to Innovation

**Teacher Script:** This case study helps us move from personal opinions to evidence-based insights. We've seen how social media affects self-image, emotions, and decision-making. Our next step? Taking these insights and defining the specific problems we want to solve. Designers use research like this to gain insight into user experiences before developing solutions. Keep today's discussion in mind as we refine our focus in the next stage of our project!



#### Elaborate (Back to summary)

### **Project Launch and Team Formation**

1. Set the Stage (1 min): The Power of Creative Impact

**Teacher Script:** We've spent time analyzing social media's impact and identifying key issues. Now, it's time to act! In the real world, creative professionals—such as marketers, designers, filmmakers, and activists—use their skills to shape conversations and drive change. Your challenge is to design a creative project that raises awareness, offers solutions, or inspires positive change about a social media-related issue. The choice is yours!

2. Introduce the Project Scope and Deliverables:

Students will develop a prototype of their choice, selecting from real-world project formats, such as:

- A digital awareness campaign (e.g., infographics, video ads, or TikTok-style series)
- A prototype of a digital tool (e.g., an app, chatbot, or browser extension)
- A presentation for peers or the broader community (e.g., school event, podcast, or PSA)

**Tip:** Display project examples for inspiration. See the Teacher Resource Guide for examples (e.g., real-world campaigns, student podcasts, student event collateral, etc.).

3. Clarify Objectives and Expectations (2 min.)

The goal is to educate, raise awareness, and propose solutions using creative tools. Teams must consider:

- What specific problem are you addressing?
- What's your unique creative approach?
- Who is your audience, and how will you engage them?

Encourage bold ideas! Social movements often start with a simple creative spark.

#### Evaluate (Back to summary)

#### Exit Ticket, Team Formation, and Brainstorming

**Question Corners**: Interest-Based Grouping

**Teacher Script:** Today, we will explore various topics related to social media and select one that interests you the most, which will serve as the foundation for your group project. Take a moment to reflect on which issue feels most relevant or important to you:

- Comparison Culture and Self-Image: How does social media shape self-perception?
- 2. Misinformation and Fake News: How can we fight digital misinformation?
- 3. Cyberbullying and Online Harassment: How do we create safer digital spaces?



4. Digital Well-Being and Mental Health: How can we promote healthier social media habits?

Now that you've had some time to consider your choice, please move to the area of the room that aligns with the topic you feel most passionate about.

- 1. Set up the Room: Designate the four corners (or areas) of the classroom that represent each of the following topics:
  - Comparison Culture and Self-Image: How does social media shape self-perception?
  - Misinformation and Fake News: How can we fight digital misinformation?
  - Cyberbullying and Online Harassment: How do we create safer digital spaces?
- 2. Choose a Topic and Move:
  - Instruct students to walk to the corner that best aligns with their interests, and encourage them to choose a topic they are genuinely curious about or passionate about.
  - If students are unsure, they can **brainstorm individually first** and then form groups.
  - Students should have the autonomy to choose their own project topic. These topics serve as a launch pad
    for brainstorming. Encourage creativity and reflection as students determine topics that are most
    compelling to them.
- Form Teams:
  - Once students are in their chosen corners, have them form small teams of three to five members.
  - If a group is too large, divide it into smaller teams to ensure meaningful collaboration.
  - Have teams briefly introduce themselves and discuss why they chose their topic.
- 4. Assign Roles: Teamwork in Action
  - Have teams assign or self-select roles based on their strengths:
    - Researcher: Finds reliable sources and collects data.
    - Designer: Creates visuals, prototypes, or media.
    - Presenter: Crafts key messages and delivers the final presentation.
    - Project Manager: Keeps the team on track and ensures deadlines are met.

**Tip:** Encourage teams to rotate roles at different project stages for flexibility.

5. Brainstorm Ideas: Sparking Innovation (4 min.)

Each team brainstorms initial project ideas using these guiding guestions:

- What's the biggest issue related to our topic?
- What creative solution could make an impact?
- How will we make our message engaging and relatable?
- What format (video, infographic, podcast, etc.) will best reach our audience?



**Optional Activity:** Use a brainstorming board (e.g., sticky notes, Padlet, or Figjam, Miro, etc.) for teams to share rough ideas visually.

- 6. Document Key Takeaways (1 min.)
  - Have teams jot down two to three key ideas, unanswered questions, or next steps in their student portfolios.
- 7. Quick Share-Out (optional, 2 min.)
  - If time allows, have each team give a 30-second elevator pitch about their topic, a possible project idea, and a challenge they'll need to overcome.

**Teacher Script:** You're officially creative problem solvers! These first ideas will evolve as you refine and test them. Keep an open mind, challenge assumptions, and get ready to bring your ideas to life.

### Optional Activity (3 min.): Fact vs. Fiction—Video Introduction to Research

**Teacher Script:** Before we dive into research in our next lesson, let's take a moment to think about how we determine whether information is credible, biased, or inaccurate. The information you find will shape your project, so understanding how to spot reliable sources is key to your success.

Show the video: Fact vs. Fake: A Quick Lesson in Media Literacy | CBC Kids (1:49)

- 1. Guiding Questions (for individual reflection):
  - What are some red flags that a source might not be trustworthy?
  - What's one new tip you learned about evaluating sources?
  - How do algorithms or echo chambers make it harder to find balanced, credible information?
  - How will you make sure your project uses credible data and diverse perspectives?

**Teacher Note:** Consider revisiting these questions briefly at the start of Lesson 3 when students begin their research phase. If you run out of time, consider assigning this video as homework for students to view and respond to reflection questions in their student portfolios.

#### Next Steps: Transition to Lesson 3: Research and Exploration

**Teacher Script:** In the next lesson, we'll dive deeper into the research process, exploring credible sources, developing surveys, and conducting media analysis to gain a more thorough understanding of social media's effects. Start thinking about how you want to approach your project!

# **Project Word Wall**

Introduce key vocabulary to establish a strong foundation for discussion and research. Have students define and discuss the following:

- Problem Definition: Clearly identifying the issue and understanding its scope.
- Inquire: Asking deep, research-driven questions to uncover new insights.



- **Argumentation:** Constructing a well-supported stance based on evidence and reasoning.
- Algorithm Bias: How social media algorithms reinforce specific perspectives.
- Echo Chambers: How online spaces reinforce existing beliefs and limit exposure to diverse viewpoints.
- **Disinformation:** The spread of false or misleading information online.
- Engagement Metrics: How likes, shares, and comments influence behavior and self-perception.

#### Integrate Skills for the Future

Before each lesson, add new skills for the future to the word wall to support students and encourage reflection on how they apply these skills in their project work.

• **Building Relationships:** Understanding the importance of trust, respect for human dignity, and equality, and using these principles to establish and maintain healthy and supportive relationships, negotiate conflict constructively, and navigate interactions with diverse individuals and groups.

# Differentiation Strategies for Grades 9–12 (Back to top)

Students across high school grades have varying levels of experience with **research**, **data analysis**, and **user-centered inquiry**. Use the following strategies to adjust cognitive load, scaffold learning, and encourage deeper engagement.

### **Grade 9: Building Foundational Skills**

Cognitive Focus: Structured guidance, clear expectations, and scaffolded discussions.

**Objective:** Help students develop research and discussion skills while reinforcing key concepts.

- **Scaffold the Quickwrite**: Provide sentence starters to support students in structuring their responses (e.g., "One way social media has affected me is...").
- Break Down the Four Corners Activity: Assign group facilitators to ensure that each student shares their reasoning in discussions. Use a Think–Pair–Share structure before students commit to a corner to help them clarify their stance.
- Structured Group Work and Team Formation: Provide sample discussion questions for groups to use while selecting their project topic. Guide students in choosing their roles by explaining each role's importance. Remind students that they will rotate through project roles throughout the development of their final product.
- Modeling Research Skills: Introduce basic research techniques, such as identifying credible sources and developing focused research questions. Provide a list of vetted sources (e.g., Common Sense Media, Pew Research, APA studies). For additional resources to support the development of research skills, see the Explore section of Lesson 3, "Understanding What Makes a Source Credible," and the video Evaluating Resources with CRAAP.

# **Grade 10: Strengthening Critical Thinking and Collaboration**

Cognitive Focus: Developing independent thinking while supporting collaboration and research.

**Objective:** Encourage deeper analysis and more structured, evidence-based discussions.



- Refine the Quickwrite: Challenge students to focus on evidence in their responses.
- Enhance the Four Corners Discussion: Assign one student per corner to be the "Devil's Advocate," prompting their group to consider counterarguments. Use anonymous polling tools (like Mentimeter or Poll Everywhere) to see if perspectives shift after the discussion.
- **Develop Research Questions:** Model how to turn broad topics into specific research questions.

### Grade 11: Deepening Research and Debate Skills

**Cognitive Focus:** Independent exploration, critical evaluation, and deeper connections to real-world issues.

**Objective:** Push students to engage with diverse perspectives, synthesize information, and prepare for argumentation.

- **Elevate the Quickwrite:** Encourage students to connect their insights to previous knowledge (e.g., psychology, business, or government courses).
- Expand the Four Corners Activity: Instead of an informal discussion, structure the discussion as a debate, where each stance must provide at least two pieces of supporting evidence. Have students switch corners midway and argue from the opposing perspective to challenge their biases.
- Advance Research and Inquiry: Push students to evaluate sources critically, discussing bias and credibility (e.g., "What makes this source reliable or unreliable?"). Have students compare multiple sources on the same topic to identify discrepancies in information.

### Grade 12: Preparing for Real-World Application

**Cognitive Focus**: Inquiry-driven learning, real-world problem-solving, and professional-level project management.

**Objective:** Empower students to take ownership of their learning, develop original arguments, and create innovative solutions.

- Push the Quickwrite to a Research-Based Reflection: Have students challenge an existing
  perspective by proposing an alternative viewpoint.
- Facilitate a Professional-Level Discussion: Conduct a roundtable discussion where students present their perspectives as if in a panel debate. Have students fact-check each other in real-time using research databases.
- **Self-Directed Research Development:** Require students to connect their research to an existing case study or policy recommendation.
- Project-Based Autonomy: Have teams create a project charter outlining goals, responsibilities, and deadlines.