

## SECONDARY LESSON PLAN

# The Wild Garden: Case Studies of Inclusion & Innovation

---

**SUGGESTED GRADE LEVEL:** 9 - 12

**LENGTH OF TIME:** This lesson was designed for a standard class period of 50 minutes. Adaptations and extensions for a block period are included at the bottom of this lesson.

**SUBJECT:** Adaptable (STEM, Humanities, etc.)

**GOAL:** Students will understand that diversity and inclusion are essential for a thriving, innovative community.

**OBJECTIVE:** Students will analyze a historical case study, deconstruct a metaphor about inclusion, and collaborate to resolve exclusionary scenarios in their own environment.

### EDUCATORS' NOTES:

- + **The Core Concept:** This lesson bridges historical marginalization with everyday classroom/team dynamics. It uses the premise that inclusion protects innovation and creativity.
- + **Cross-Curricular Adaptability:** While this lesson uses a computer engineer, you can adapt the “Case Study” section to feature any historically marginalized figure relevant to your specific subject (e.g., a misunderstood author in English, an overlooked scientist in Biology, or a silenced voice in History). See the bottom of this lesson for suggested adaptations.

### MATERIALS:

- + **Biographical information on a historically marginalized figure relevant to your subject.**

- + [Lynn Conway](#)

- + **Garden visuals and instructions slides.**

- + [Slides on Lynn Conway](#)

- + **Welcoming Schools Resources**

When discussing inclusion and identities that have been historically marginalized, educators must be prepared to address identity-based bullying and stop discriminatory comments. These resources will help you respond to bullying and provide guidance on preventing it.

- + [What to Say to 'That's So Gay' & Other Anti-LGBTQ+ Comments](#)
  - + [Centering Youth Voices: Addressing Identity-Based Bullying](#)
  - + [Bullying Intervention: What to Do When You Witness Bullying](#)



## THE LESSON

### 1) THE HOOK: THE HIDDEN INNOVATOR (10 MIN)

- + **Introduce the Figure:** Share the story of Lynn Conway, a computer engineer and chip design pioneer who helped shape modern computer technology.
  - + Slides Resource: [See slides 1-3](#)
  - + Video Resource: <https://news.engin.umich.edu/2014/10/life-engineered/>
- + **The Conflict:** Discuss how she was fired from IBM for being a transgender woman and had to start over in “stealth”. Despite this, she went on to invent Dynamic Instruction Scheduling, write a famous textbook, and become an engineering professor.
- + **Discussion Question:** How does hiding a part of who you are impact your ability to create and collaborate?

### 2) DIRECT INSTRUCTION: THE GARDEN METAPHOR (10 MIN)

- + **The Quote:** Share Conway’s reflection: “I’ve always kind of felt like a weed in a wild garden, felt like not fitting into a formal garden, but finding it fun to be out there where I can explore and wonder.”
  - + Slides Resource: [See slide 4](#)
- + **Visual Analysis:** Show images contrasting a highly manicured formal garden with a vibrant, overgrown wild garden.
  - + Slides Resource: [See slide 5](#)
- + **Discussion Questions:**
  - + What’s the difference between a formal garden and a wild garden?
  - + In a garden, who decides what’s a weed?
  - + What happens to a plant that’s constantly pulled up or trimmed back?

### 3) GUIDED PRACTICE: APPLYING THE METAPHOR (15 MIN)

- + **Connection:** Pose the reflection question: What does a ‘Formal Garden’ mindset look like versus a ‘Wild Garden’ mindset in different classes or subject areas? Then, ask students to think about which mindset fosters rigidity and exclusion versus which fosters inclusion and innovation.
  - + Slides Resource: [See slides 6-7](#)





**+ Application:** Project the “Garden Audit” table on the board with three columns:

Subject/Class	A “Formal Garden” (rigidity, exclusion)	A “Wild Garden” (inclusion, innovation)
Science		
Math		
English		

**Note:** The rows of the table can be modified to include different subject areas, activities, or clubs.

- + As a class or in small groups, have students analyze the “climate” of the classes and what would make each a “formal garden” versus a “wild garden.” Educators may provide some ideas to support student discussion.

Subject/Class	A ‘Formal Garden’ (rigidity, exclusion)	A ‘Wild Garden’ (inclusion, innovation)
Science	Following steps or accepting theories without curiosity; ignoring data that doesn’t fit the expected outcome.	Asking “what if?” and “why?”; valuing diverse perspectives to catch errors.
Math	Only one “correct” way to solve a problem; speed is the only measure of intelligence.	Appreciating different logic paths; valuing the process over just the final answer.
English	Only reading “the classics” by one type of author; only one “correct” interpretation.	Analyzing diverse voices; bringing personal culture and slang into the narrative. + Slides Resource: <a href="#">See slide 8</a>

- + **Discussion Question:** When we consider what we see in the ‘Wild Garden’ spaces, what are some common “soil conditions” (what nurtures the class environment, culture, etc.)?

#### 4) INDEPENDENT REFLECTION: CULTIVATING OUR GARDEN (10 MIN)

- + **Silent Journal or Exit Ticket:** Have students reflect on the community they want to build by answering two questions:

- + What kind of garden do we want our class to be?
- + What’s one small thing you can do to plant a “seed” in our class garden that helps all feel valued so we can learn?

+ Slides Resource: [See slide 10](#)



## HOW TO ADAPT FOR BLOCK PERIOD (90 MIN)

- + **Expand the Hook (Think-Pair-Share):** Have students silently journal on the following prompt: *“How does hiding a part of who you are impact your ability to create and collaborate?”* Before the Pair-Share, explicitly set a boundary: “You do not have to share your personal journal. With your partner, you can share an observation about Lynn Conway, a hypothetical example, or simply a broad thought about why this matters.”
- + **Deepen the Metaphor (T-Chart Activity):** During the Direct Instruction phase, have students create a T-chart comparing the traits of a “Formal Garden Classroom” (e.g., rigid, one right answer) versus a “Wild Garden Classroom” (e.g., messy but creative, multiple perspectives).
- + **Extending the Garden Audit:** Have students chart their daily schedule, like the table created in the lesson. They may also reflect on the “soil conditions” (classroom culture) that make them either like a “weed” to be trimmed or a plant with room to grow.  
**Strict Boundary:** Students must focus on environmental signals – such as “mistakes are viewed as data” or “one right way to think” – rather than naming specific teachers or peers.
- + **Add a Creation Phase (Community Charter)** Insert a 2-minute collaborative activity before the Exit Ticket where small groups draft a “Wild Garden Community Center,” creating 3 to 5 concrete class agreements to protect inclusion and innovation for the rest of the year.
- + **Closing Circle:** Reserve the last 5 minutes of class for 2-3 students to share the “one small thing” they wrote down on the Exit Ticket.

## HOW TO ADAPT LESSON FOR OTHER SUBJECTS:

- + **For English/Language Arts:** Connect Lynn Conway with an author who published under a pseudonym. For example, Mary Ann Evans published as George Elliot to bypass the rigid, sexist rules of the 1800s.
  - + **Discussion Question:** “If the ‘formal Garden’ of English class means there is only one ‘proper’ way to write or one ‘correct’ interpretation of a poem, what happens to authentic voices and unique perspectives? How does a ‘Wild Garden’ approach (valuing regional slang and unconventional analysis) actually make our literature discussions more innovative?”
    - + Analyze how strict adherence to “Standard English” or “The Classics” can act like a weed-killer for new, diverse stories.
- + **For History/Social Studies:** Connect Lynn Conway to a figure like Bayard Rustin, a civil rights leader whose impact was hidden due to his sexuality.
  - + **Discussion Question:** “When history is taught as a ‘Formal Garden’ with only a few main figures (like Martin Luther King, Jr. or Rosa Parks), whose stories are being pulled up like weeds to keep the narrative simple? How does planting hidden figures like Bayard Rustin provide a more accurate and vibrant understanding of how social change actually happens?”
    - + Consider “Selective Planting” in textbooks: why are some stories chosen and others excluded?

## HOW TO ADAPT LESSON FOR OTHER SUBJECTS CONT.

- + For Mathematics:** Connect Lynn Conway to Alan Turing, a brilliant mathematician and cryptanalyst who broke the Nazi Enigma Code and was later criminally prosecuted by his own government for simply being gay.

  - + Discussion Question:** “In a ‘Formal Garden’ math class, speed and following one specific formula are often the only things valued. How does the pressure to conform to these rigid expectations discourage students who have brilliant but unconventional ways of thinking? How could a ‘Wild Garden’ mindset, where different logic paths are celebrated, reduce ‘math anxiety’ and lead to more innovative problem-solving?”

    - + Identify the “Method Fence,”** the unwritten rule that there is only one “correct path to a solution, which can stifle creative mathematical discovery and make people feel like ‘weeds’ if they don’t solve it the standard way.
  
- + For Visual Arts:** Connect Lynn Conway to Augusta Savage, a talented sculptor who publicly fought the racist decision to rescind her acceptance into a prestigious fellowship to study in France.

  - + Discussion Question:** “When we define art and artists through a narrow, traditional lens, we create a ‘formal Garden’ that excludes cultural heritage and modern styles. How does the pressure to fit this mold kill a student’s creativity? How can we give feedback that treats ‘different’ styles as new growth rather than weeds?”

    - + Consider the “Aesthetic Mold,”** unwritten rules about who counts as an “artist” and what counts as “real art” in a classroom and beyond.
  
- + For Health & Wellness / Physical Education:** Consider Judith Heumann, known as the “Mother of the Disability Rights Movement,” who was blocked from entering kindergarten and led a lifelong fight for disability rights.

  - + Discussion Question:** “If a PE or Health class is a ‘Formal Garden’ that only values high-performance athleticism or ‘perfect’ bodies, how does that impact the mental and physical well-being of the whole community? What does a ‘Wild Garden’ look like where every body and ability level is seen as a vital part of the community?”

    - + Consider the curb-cut effect:** When you build a “Wild Garden” that works for the person who feels most like a “weed,” you actually make the whole garden better. Think about curb cuts: they were designed for wheelchairs, but they ended up helping people with strollers, bikes, and skateboards, too.

