



Design Thinking, Technology & The Future of Education

A lesson plan designed by *Ashley Lamb-Sinclair*



Estimated class periods

With education under a worldwide reform, educators around the globe are searching for new ways to teach young people in an increasingly technology-driven learning environment. In this activity, students will use the design thinking method to create innovative technological solutions to combat an issue in education. A driving question for this lesson will be: “In what ways can innovation and technology improve peoples’ lives?”

Directions:

CLASS 1

Step 1: Understand the problems and the perspectives involved

- a. View the RSA Animate video, “Changing Educational Paradigms” and accompanying TED Talk, “Schools Kill Creativity” by Sir Ken Robinson.
- b. While viewing, students should create a T-Chart in their notebooks. One side should list all of the problems in education discussed in the videos, and the other should list the various perspectives involved in the problems listed. For example, “standardized testing” will include students, teachers, parents, administrators, testing agencies, etc.

Step 2: Discuss experiences that illustrate the problems and perspectives

- a. After viewing the videos, students will share their lists with a partner, while adding other problems students have encountered in their own experiences.
- b. Next, let students work as a class to create one master list of the various problems and perspectives in education. Encourage a large discussion so students can continue creating and adding new ideas.

Step 3: Empathize with the people involved in the problems of education

- a. In a group, students will choose one of the problems from the class list and create a visual web that explores the various perspectives and experiences from the people impacted by the problem.
- b. Each group will present their webs to wrap up the class.

ABOUT THE TEACHER

Ashley Lamb-Sinclair is the 2016 Kentucky Teacher of the Year. She teaches English and creative writing in the Oldham County District. She is a national board certified teacher, a Fullbright and Oxford Scholar, and the CEO and Founder of Curio Learning, an edtech startup.

MATERIALS

- RSA Animate video: “Changing Educational Paradigms” <https://www.thersa.org/discover/videos/rsa-animate/2010/10/rsa-animate---changing-paradigms>
- TED Talk: “Schools Kill Creativity” by Sir Ken Robinson” https://www.ted.com/talks/ken_robinson_says_schools_kill_creativity
- Prototype materials: paper, tape, clay, pipe cleaners, cardboard, and scissors

STANDARDS

Ashley believes this lesson plan could address these national Common Core guidelines:

CCSS.ELA-Literacy.SL.9-10.1.b Work with peers to set rules for collegial discussions and decision-making (e.g., informal consensus, taking votes on key issues, presentation of alternate views), clear goals and deadlines, and individual roles as needed.

CCSS.ELA-Literacy.SL.9-10.1.c Propel conversations by posing and responding to questions that relate the current discussion to broader themes or larger ideas; actively incorporate others into the discussion; and clarify, verify, or challenge ideas and conclusions.

CCSS.ELA-Literacy.SL.9-10.1.d Respond thoughtfully to diverse perspectives, summarize points of agreement and disagreement, and, when warranted, qualify or justify their own views and understanding and make new connections in light of the evidence and reasoning presented.



Directions:

CLASS 2

Step 4: Define the problem and iterate on ideas

- a. Each group should look over their classmates' visual webs. Then, they should craft a problem statement that clearly illustrates the issue they will attempt to solve, as well as the people they intend to help.
- b. After defining the problem, students will begin brainstorming ideas for solutions to it. The solution should take the form of technology, with examples including apps, programs, or video games. The teacher should encourage wild ideas and exploration, even if the technology does not currently exist to create the device. Provide plenty of time to brainstorm and challenge students' first, second, and even third ideas in order to push them to create something truly unique.

CLASS 3

Step 5: Prototype and share solutions.

- a. Using clay, pipe cleaners, Legos, cardboard, and any other household items that could be of use, students will create a prototype of their device and prepare a short Ted Talk-style presentation that illustrates how the device will solve the problem for the people who they have identified are affected by it. They should also clearly explain how the device is to be used.
- b. The class will give feedback as each group presents.

Step 6: Reflection

- a. Individually, students will reflect and determine what they would do if they had to design the solution again after hearing their classmates' feedback.

STANDARDS CONT.

CCSS.ELA-Literacy.CCRA.SL.1 Prepare for and participate effectively in a range of conversations and collaborations with diverse partners, building on others' ideas and expressing their own clearly and persuasively.

CCSS.ELA-Literacy.CCRA.SL.2 Integrate and evaluate information presented in diverse media and formats, including visually, quantitatively, and orally.

CCSS.ELA-Literacy.CCRA.SL.3 Evaluate a speaker's point of view, reasoning, and use of evidence and rhetoric.

CCSS.ELA-Literacy.CCRA.SL.4 Present information, findings, and supporting evidence such that listeners can follow the line of reasoning and the organization, development, and style are appropriate to task, purpose, and audience.

CCSS.ELA-Literacy.CCRA.SL.5 Make strategic use of digital media and visual displays of data to express information and enhance understanding of presentations.

TAKE IT A STEP FARTHER.

Experience the design thinking process at our upcoming Global Leadership Summit in Berlin that focuses on The Influence of Technology on Society. [Learn more at eftours.com/summit](https://eftours.com/summit)