# Lesson Plan: Dirty Jobs - Inventor's Workshop

### **Materials Needed**

- Large piece of paper or whiteboard
- Markers or pens
- Notebook paper and pencil
- For Brick Making Model (Choose one option):
  - Small sugar cubes and a bit of water/frosting to act as mortar
  - $\circ\,$  LEGO bricks of the same color
  - Clay or Play-Doh to form mini-bricks
- For Cranberry Farming Model (Choose one option):
  - A shallow baking pan or plastic tub
  - Water
  - Red pom-poms, beads, or cranberries
  - A small piece of cardboard or a ruler to act as a "boom"
- Optional: Timer, costume props for final "pitch" (e.g., hat, vest)

### **Learning Objectives**

- The student will analyze and compare two different labor-intensive jobs by creating a Venn Diagram identifying their similarities and differences.
- The student will demonstrate understanding of a process by building a simple 3D model of either brick making or cranberry harvesting.
- The student will apply creative problem-solving skills to design a new "Dirty Job," including its purpose, tools, and required skills.
- The student will practice descriptive writing and organization by creating a "Job Application" for their invented profession.

### **Lesson Plan Details**

#### Part 1: Warm-Up: Job Detectives (10 minutes)

- Recall & Review: Start by asking the student to be a "Job Detective." Ask: "Let's think back to the *Dirty Jobs* episodes. What was the main goal of the brick makers? What was the main goal of the cranberry farmers?"
- Identify the "Dirty" Part: On a whiteboard or large paper, create two columns: "Brick Making" and "Cranberry Farming." Ask the student to list all the "dirty," "difficult," or "messy" parts of each job they can remember. (e.g., Brick Making: mud, heat from the kiln, heavy lifting. Cranberry Farming: cold water, spiders/bugs, long hours).
- 3. **Find the Pride:** Ask: "Even though the jobs were dirty, why were the workers proud of what they did?" Guide the student to understand the importance of the final product (building houses, providing food).

#### Part 2: Process Experts: Model & Explain (25 minutes)

- 1. **Student Choice:** Tell the student they get to be the expert and teach you about one of the processes. Let them choose which job they want to model: brick making or cranberry farming.
- 2. Build the Model:
  - **If they choose Brick Making:** Using sugar cubes, LEGOs, or clay, have them build a small wall. As they build, ask them to explain the steps they remember from the show

(mixing mud/clay, forming the brick, drying, firing in the kiln, stacking).

- **If they choose Cranberry Farming:** Have them fill the shallow pan with water. Add the red pom-poms/beads ("cranberries"). Have them explain how the bog is flooded. Then, using the cardboard "boom," they must show you how the cranberries are corralled and harvested from the water's surface.
- 3. **Explain the 'Why':** During the building process, ask probing questions. "Why do they need to flood the bog? Why can't they just pick them?" or "Why do the bricks need to be fired in a kiln? What would happen if they weren't?" This focuses on understanding the reason behind the steps, not just memorizing them.

#### Part 3: The Big Compare (15 minutes)

- 1. **Introduce Venn Diagram:** Draw two large overlapping circles on a piece of paper. Label one "Brick Making" and the other "Cranberry Farming." Explain that the outside parts are for differences, and the overlapping middle part is for what's the same.
- 2. **Fill it Out:** Using the list from the warm-up and the insights from the model-building, work with the student to fill in the Venn Diagram.
  - **Differences could include:** Works with soil/mud vs. water; creates a building material vs. food; involves extreme heat vs. cold water.
  - Similarities could include: Hard physical work, requires special machinery, happens outdoors, workers get dirty, produces something important people need, takes a lot of steps.

#### Part 4: Creative Core: Invent-A-Job! (30 minutes)

- 1. **The Premise:** Say, "Mike Rowe needs a new episode! Your job is to invent a brand new Dirty Job that hasn't been on the show yet. It needs to be messy, difficult, but also very important."
- 2. **Brainstorm a Problem:** First, brainstorm a problem that needs solving. Examples: "All the city pigeons have made a mess on the statues," or "A factory that makes super-sticky bubble gum just spilled a giant vat of it," or "Sewer pipes get clogged with weird things people flush."
- 3. **Design the Job:** On a new sheet of paper, the student will design the job to solve the problem. They need to decide on:
  - **Job Title:** (e.g., "Statue Scrubber," "Gum Buster," "Sewer Treasure Hunter")
  - Main Duty: What does this person do all day?
  - The "Dirty" Part: What makes this job messy and difficult?
  - **Special Tools:** What unique equipment do they need? (e.g., long-handled scrubbers, solvent sprayers, a "Goo-Scooper," a waterproof camera on a snake).
- 4. **Create the Job Application:** Give the student a piece of notebook paper and have them create a simple "Job Application" for their new role. It should include sections for:
  - Job Title
  - Skills Needed (e.g., "Not afraid of heights," "Strong stomach," "Good at solving puzzles")
  - $\circ\,$  Previous Experience? (What kind of job would prepare someone for this?)
  - $\circ\,$  A question for the applicant, like: "Why do you want to be a Gum Buster?"

#### Part 5: Wrap-Up: The Producer Pitch (10 minutes)

- 1. **Prepare the Pitch:** Tell the student they are now a TV producer who has to pitch their new "Dirty Job" idea to the Discovery Channel (you). Give them 5 minutes to gather their job design sheet and application. Encourage them to think about how to make it sound exciting and important.
- Present the Idea: Have the student stand up and present their job. They should explain the title, what problem it solves, what makes it a "Dirty Job," and why it would make a great TV episode. They can use props or act out using one of the special tools.
- Teacher Feedback: Give enthusiastic feedback, acting as the TV executive. "Wow, a Sewer Treasure Hunter! That sounds disgusting and fascinating! I think we have a hit! The show is greenlit!"

### **Assessment & Success Criteria**

Success is measured by active participation and the creative output of the final project, not a formal grade. Look for:

- **Venn Diagram:** Did the student identify at least two valid differences for each job and two valid similarities in the middle?
- **Model Explanation:** Was the student able to explain the "why" behind at least one key step in their chosen process?
- **Invent-A-Job Project:** Did the student create a job that has a clear purpose, a "dirty" element, and unique tools? Is the job application clear and related to the job itself?
- **Final Pitch:** Did the student confidently explain their idea and show enthusiasm for their creation?

## **Differentiation & Extension**

#### For Extra Support:

- Provide pre-made templates for the Venn Diagram and the Job Application.
- Offer a list of 3-4 problems to choose from for the "Invent-A-Job" activity.
- Use sentence starters for the Job Application, such as "A skill you need is..." and "The main tool you will use is..."

#### For an Extra Challenge:

- Have the student write a short script for the opening of their *Dirty Jobs* episode, including what Mike Rowe would say.
- Ask them to research a real-life "dirty job" that is similar to the one they invented.
- Challenge them to calculate a "dirtiness" pay scale. How much more should a "Gum Buster" make per hour than an office worker, and why? Have them justify their reasoning.