

# MARJOLIJN DIJKMAN

Art and Science



## GRADE LEVEL: 6-12



## OBJECTIVE

This lesson focuses on the importance of recycling and the global impact of e-waste and history and potential of electricity as a medium.

## VOCABULARY

- electricity
- e-waste
- exposure
- recycling

## MATERIALS

- computer, tablet
- long-exposure app
- flashlight
- pencil
- paper
- storage containers

## BEFORE HAND

- Gather materials. Introduce students to Marjolijn Dijkman's work through the CAC's [teacher resources](#).

## PROCEDURES

- Activity A:
  - Light manipulation- Using a long exposure app and flashlight/phone students can create images and words with light! This activity will emphasize Dijkman's ability to combine art and science through photography and technology.
- Activity B:
  - Lets talk about E-waste-Students will research how e-waste is handled in their county. In small groups they will begin an e-waste collection. This could be in the school, in their homes, or homes on their street/ neighborhood. This could be followed with a presentation about their experience and how they have made an impact on their community. How do you get the word out about what your trying to accomplish? Where should you try and collected e-waste? How will you record data? What is the best way to present that data?

## STANDARDS

- A: Energy and Matter- Tracking energy and matter flows, into, out of and within systems helps one understand their system's behavior.
- B: Cause and Effect- Events have causes, sometimes simple, sometimes multifaceted. Deciphering causal relationships, and the mechanisms by which they are mediated, is a major activity of science and engineering.

## RESOURCES

- <https://www.smithsonianmag.com/travel/nikola-tesla-museum-belgrade-inventor-electricity-smithsonian-journeys-travel-quarterly-180958881/>
- [http://www.marjolijndijkman.com/?rd\\_project=earthing-discharge&lang=en](http://www.marjolijndijkman.com/?rd_project=earthing-discharge&lang=en)
- <https://www.youtube.com/watch?v=RVpI9k2IMIE>
- <https://www.youtube.com/watch?v=2pLJ2ZX4By4&t=261s>
- <https://www.youtube.com/watch?v=JcJ8me22NVs>
- <https://medium.com/thebeammagazine/cobalt-the-toxic-hazard-in-lithium-batteries-that-puts-profit-before-people-and-the-planet-ae5a63e0f57c>
- <https://populationeducation.org/3-reasons-to-teach-high-schoolers-about-e-waste-and-ideas-on-how-to-do-it/>
- <https://www.pbs.org/video/kcts-9-documentaries-circuit/>