



3-5. Engineering Design

Sample Driving Question:

How can we provide more sustainable power for our community?

Relevant Standards:

- 3-5-ETS1-1. Define a simple design problem reflecting a need or a want that includes specified criteria for success and constraints on materials, time, or cost.
- 3-5-ETS1-2. Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem.
- 3-5-ETS1-3. Plan and carry out fair tests in which variables are controlled and failure points are considered to identify aspects of a model or prototype that can be improved.

Annual Report Supplemental Resource Stories:

- [Building a Sustainable Future One Power Plant at a Time](#)
- [End of Coal](#)
- [Traveling the Distance](#)
- [Melting the Snow for Small Business](#)
- [Sprinting on the Snowmelt](#)
- [Working with Gravity](#)

Additional HBPW Resources:

- [Tours of the Water Reclamation Facility](#)
- [SROI Report](#)
- [SROI Presentation](#)
- [Visual Assets](#)

About this resource:

Holland Board of Public Works is a strong advocate for educating students on where their utilities come from and how they are provided. We believe that providing context on what is happening in their community will help them to become community advocates and engaged citizens.

We have provided some ways in which our stories can supplement state standards, but we invite you to explore the stories and see in what other ways these topics might serve as a resource in your classroom. More information can be found online at <http://annualreports.hollandbpw.com/annualreport2016/article/educator-resources>