

Cycle 2

STEM Design Challenge Overview- Grade 3

The Big Picture

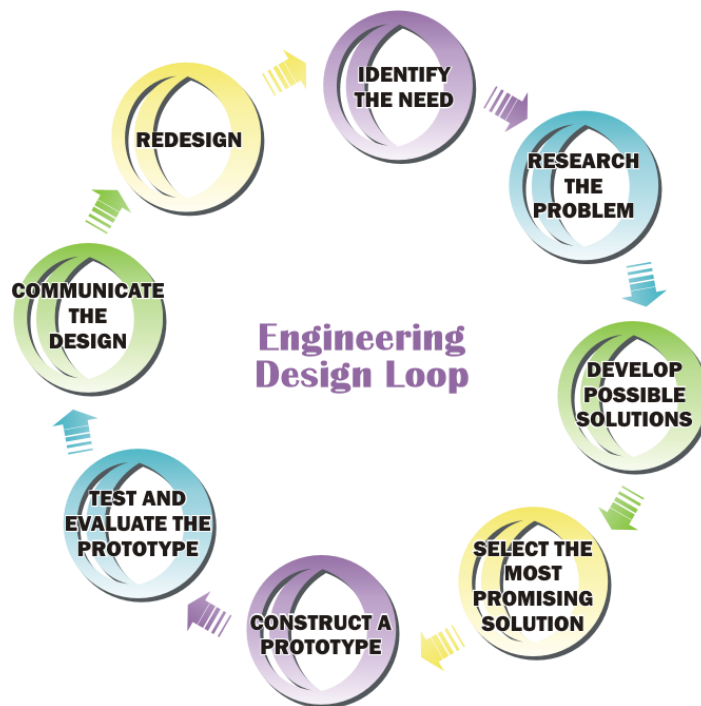
STEM design challenges were created to complement the HISD Science exemplar lessons or as standalone design challenges. The challenges are hands-on tasks designed to intentionally foster deep learning of the math and science TEKS standards indicated. They are not to replace direct instruction of the content.

Where it Fits in Cycle 2

This design challenge aligns to “Unit 5: Natural Resources” in science and fits nicely within the Elaborate stage of the 5E model. It can be used to deliver instruction on **science standard 3.7D**.

The Engineering Design Loop

Each STEM design challenge addresses the engineering design process. The following graphic serves as a pictorial scaffold you can use with your class. It is based on the engineering design loop from *TeachEngineering*¹. More information on each of the specific steps of the engineering design process can be found [here](#).



The Engineering Design Loop is a set of steps engineers use to organize their ideas and refine potential solutions to engineering challenges¹.

¹The source of this material is the *TeachEngineering* digital library collection at www.TeachEngineering.org. Terms of Use Link: <http://www.teachengineering.org/termsfuse.php>