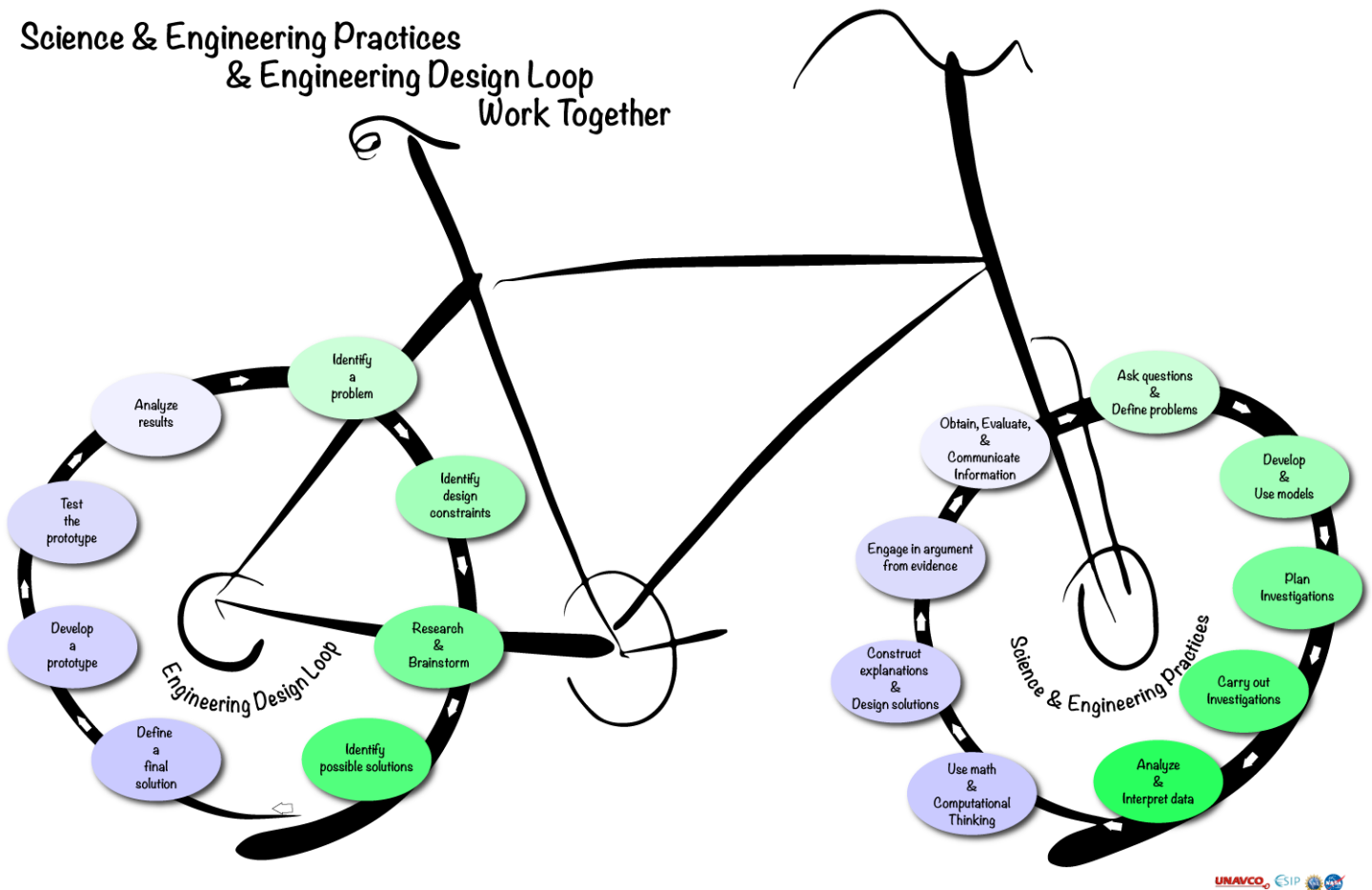


Science & Engineering Practices & Engineering Design Loop Work Together



UNAVCO ESIP

The Science & Engineering Practices and the Engineering Design Loop Work Together

You've found the perfect science project to try out! Your question has helped define the problem you want to study, and you are working through the Science & Engineering Practices. As you start putting together a model to describe your hypothesis and plan your project, you realize that you don't have all of the parts to make the study work. They could be rubber bands and Velcro to hold a tiny instrument to your drone. Maybe you're working with a team of makers to build your own sensor. Perhaps it's a better camera that is super lightweight. Maybe you want to change the angle of the camera so that it points straight down or straight ahead.

Either way, your project has taken a turn towards engineering design! Whether it is a small modification or a complete separate project, the Engineering Design loop is a great way to approach to solve a problem. While the loop is drawn in a circle, you might find that you need to do some jumping within the loop around to come up with a working prototype and final design. In fact, often scientists and engineers will go back and forth between the two loops to inform, test, and refine the product being produced and its impact on the scientific study.

Try it out! You might realize that you are already doing both science & engineering in your projects!