Deconstruct-Imitate-Vary-Explore (DIVE). This is what real-world engineers do every day. Unleash your students’ creativity with DIVE-in Engineering, a curriculum where makerspace meets engineering design and being an engineer becomes a reality. Learn more at diveinengineering.com.

THE DIVE MODEL
In each grade band, students explore nine different engineering challenges, in three units: On the Move, Around the House, and Eyes, Ears, and Hands. DIVE, our engineering lesson model, helps students develop critical thinking.

DECONSTRUCT
Working the way engineers do, students begin by taking apart a working prototype, making recordings, taking measurements, and creating diagrams.

IMITATE
Now students are ready to reverse engineer the prototype, making their own version of what they deconstructed.

VARY
Students analyze what they have created and brainstorm ways to enhance it, e.g. different materials, faster speeds, higher flying altitudes, increased carrying capacity, etc.

EXPLORE
Students apply what they have learned through the engineering design process to a real-life situation: how can their innovation make a difference in the real world?

Robot Arm: Students design a hydraulic arm with an articulating neck and pincer grip and then Vary their design to solve real-world problems.