Design Challenges for Teaching Innovation and Perseverance

The million dollar question in the 21st Century Education is how can we create a new generation of innovative thinkers, students who look at a problem and have both the capacity and the perseverance to dive into creative problem solving. We believe that this work is based on having students face design challenges - which in our definition is a situation where they must create something physical that can accomplish some sort of task. It can be as simple as a paper airplane that can travel a certain distance - a lesson that can literally be done in a 30 minute block, to a multi-week engineering design challenge that involves authentic fabrication and coding. Do a quick google search and you can find enough potential design challenge type projects to fill your entire schedule - the real challenge is how to make these happen in your classroom in a way that encourages success, allows for authentic failure and doesn't cost you your sanity . . . that is easier said than done. The true goal of this workship is not to teach you how to do any specific project - but instead to provide you with a framework for identifying the "why" behind what you are trying to accomplish and then match your classroom reality (space, materials and time primarily) with some possible solutions . . . actually a design challenge in itself. Reach out to STEM4Learning@gmail.com if this sounds like it might be an interesting training for you and some of your colleagues.