How to Do It: Tips for Implementation of Problem–Based Learning

1. **Objective**
   - How can problem/project-based learning (PBL) be added to existing curriculum to engage students on a deep level?
   - How can industry partners add relevance to career and technical education (CTE)?

   > "Truthfully so many businesses in Colorado right now are asking for those kinds of skills and certification for kids, and so we've tried to respond to that and really be thoughtful in how we offer it and grow our programs."
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   > *Grant Euler, STEM Coordinator*
   > *Jeffco Public Schools*

2. **Preparation**
   - Visit the Buck Institute's website for information on PBL.
   - Read up on Bell Middle School's iStem program.
   - Visit MIT Media Lab's Scratch Studio.
   - Watch the video about Bell's weather balloon experiment.
   - Visit Green Mountain High School's website to read about academies.
     I. Read about Green Mountain's senior capstone projects.

3. **Implementation**
   - At a district level, make sure there is a senior official who is "an evangelist" for CTE and PBL. This person must have a passion for making these changes and must be able to instill this passion in others.
     I. This evangelist must lead the process of developing planning and implementation documents, so that administrators, principals and teachers understand how PBL and CTE will roll out gradually and systematically.
   - At a classroom level, teachers need to be made to feel safe about a fundamental shift in teaching methodology, from a "sit and get" classroom to something much more interactive.
     I. Principals need training on how this changes the way in which teachers are evaluated.
     II. Teachers need to feel like "a warm blanket has been put around them," Jeffco's Grant Euler says, so they feel safe in stepping outside their comfort zone.
   - Consider how to open your school to the business and non-profit communities to afford students rich opportunities to gain hands-on experience in a wide variety of possible career fields.

4. **Assessment/reflection**
   - What worked?
   - What did not work?
   - How can it be adjusted?