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| **Content Area** | **Explorations in Technology** |
| **Grade/Course** | **6th**  |
| **Unit of Study** | **Exploring Engineering and Technology** |
| **Instructional Period** | **5-6** |
| **Insert a standard(s) below (include code). HIGHLIGHT the SKILLS that students need to be able to do and UNDERLINE the CONCEPTS that students need to know.** |
|  **ENGR-EET-1: Students will examine the nature of engineering & technology.****ENGR-EET-2: Students will evaluate the impacts of engineering & technology on Society** |
| **List Behaviors****(what students should be able to do; focus on verbs)** | **List Content****(what students should know; focus on concepts)** | **Determine DOK****(align to instruction and assessment)** |
| **Ask, answer, describe, write, recount, demonstrate, identify and locate** | Define engineering & technologyCreate a timeline of engineering accomplishments• Create a profile of a historical engineer | **DOK Levels** | **DOK Ceiling** |
|  |  |

**Pre-Planning Worksheet**

**TAPS 1, 2**

|  |  |  |
| --- | --- | --- |
| **DOK Level****TAPS 2, 3, 4, 5** | **Possible Aligned Activities and Questions** | **Resources** **(on/offline)** |
|  | Students will work in the lab in a group consisting of two. | offline |
|  | Students will research their topic and answer who, what, when, where, and why. |  |
|  | Students will type a one page biography on their engineer and find pictures related to their topic. |  |
|  | Students will use Microsoft Word and purchase a poster board to attach their pictures and biography. |  |
| **DOK Level****TAPS 2, 3, 4, 5** | **Possible Aligned Assessment Items/Tasks** | **Resources** **(on/offline)** |
|  | Rubric | offline |
|  |  |  |
|  |  |  |
|  |  | Media Center research materials, internet. |

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| **Standards (Primary)** | **DOK (Ceiling)** | **Integrated** |
| **ENGR-II-1: Students will learn the concept of invention and innovation.** |  |  |
| **KNOW/UNDERSTAND** | **Essential Question/Enduring Understanding:****TAPS 2, 3**How do engineers impact our society? |
| **KNOWLEDGE & SKILLS**(Key Vocabulary) |
| **Vocabulary- Tier 1*****Words using to teach Tiers 2-3***Design | **Vocabulary Tier 2*****Academic vocabulary across content-areas***Brainstorming | **Vocabulary Tier 3*****Content-specific, domain-specific*****.****Prototype****TAPS 2, 3, 5** |
| **Pre-assessment to Inform Instruction** |
| **Assessment for Learning** or **Assessment of Learning**Students will be graded by a rubric which gives points for each field they are required to complete during the activity.**TAPS 2, 3, 4** |
| **DO** |  | **Content** | **Process** | **Product** |
| **Advanced** | Students will make an engineer report poster. | Explore the historical impacts of engineering & technologyb) Examine the effects of engineering & technology on society including social,cultural, political, economic and environmental impactsc) Assess the impact(s) of technological products and systemsd) Demonstrate an understanding of the Universal Systems Model | A finish poster with biography of an engineer and pictures of the engineer’s accomplishments. |
| **Ready** |  |  |  |
| **Need Prerequisites** |  |  |  |
| **Steps to Deliver the Lesson Using WICOR** https://my.avid.org/_images/helper_mascot.pngAVID®**TAPS 2, 3, 5, 6, 8** |
| **Engage**(Hook, introduction to lesson concepts)***WICOR:*** | **Mini-Lesson**Pictures of engineers’ accomplishments. |
| **Explore/Explain**(teaching content all students need to know, understand and be able to do as determined by unpacked standard)***WICOR:*** | Define engineering & technology |
| **Enrich/Elaborate**(differentiation of process )***WICOR:*** | .Examine the role that Engineering & Technology and society play in theEngineering design process. |
| **Evaluation**(Formative assessment)***WICOR:*** |  |
| **Resources** |  |