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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 & technology  Create 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 |
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|  |  |  |
|  |  | 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 & technology  b) Examine the effects of engineering & technology on society including social,  cultural, political, economic and environmental impacts  c) Assess the impact(s) of technological products and systems  d) 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 the  Engineering design process. | | | | | | | |
| **Evaluation**  (Formative assessment)  ***WICOR:*** |  | | | | | | | |
| **Resources** |  | | | | | | | |