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| **TEXAS CTE LESSON PLAN**  [www.txcte.org](http://www.txcte.org) | |
| **Lesson Identification and TEKS Addressed** | |
| **Career Cluster** | Science, Technology, Engineering, and Mathematics |
| **Course Name** | Robotics I |
| **Lesson/Unit Title** | Robotics I – Time Management |
| **TEKS Student Expectations** | **130.408. (c) Knowledge and Skills**  (1) The student demonstrates professional standards/employability skills as required by business and industry. The student is expected to:  (D) demonstrate time-management skills in prioritizing tasks, following schedules, and performing goal-relevant activities in a way that produces efficient results  (4) The student develops skills for managing a project. The student is expected to:  (D) develop a plan for production of an individual product |
| **Basic Direct Teach Lesson**  (Includes Special Education Modifications/Accommodations and  one English Language Proficiency Standards (ELPS) Strategy) | |
| **Instructional Objectives** | **Performance Objective**  At the end of the lesson, students will demonstrate skills for managing a robotics project; using time-management techniques to develop and maintain work schedules and meet deadlines; and developing a plan for production of an individual robotics project, by completing the tasks found on the Time Management: Robotics Project Weekly Schedule Assignment and Rubric.  **Specific Objectives**   * Demonstrate how to manage a robotics project. * Identify important time management techniques. * Develop and maintain work schedule and meet deadlines. * Develop a plan for production of a robotics project. |
| **Rationale** | It is critical that students can manage their time appropriately while completing robotics projects. |
| **Duration of Lesson** | It should take approximately 45 minutes to teach the lesson and 45 minutes for one lab session. |
| **Word Wall/Key Vocabulary**  *(ELPS c1a, c, f; c2b; c3a, b, d; c4c; c5b) PDAS II (5)* | * + - * **Robotics-** the science of technology of robots, their design, use, etc. * **Time management-** the ability to use one's time effectively or productively, especially at work. * **Project-** an organized undertaking. * **Scheduling-** a plan of procedure (usually written) for a proposed objective, especially with reference tothe sequence of and time allotted for each item or operation necessary to its completion; the schedule allows three weeks for this stage. * **Management-** the people managing a business. * **Schedule-** a timed plan for a project. * **Weekly schedule-** indicates which employees of a business are going to work at what times, to ensure that labor resources are distributed effectively. * **Tasks-** pieces of work to be done. * **To-do list-** a list of tasks that need to be completed and typically organized in order of priority. |
| **Materials/Specialized Equipment Needed** | **Instructional Aids**   * Time Management: Robotics Project Weekly Schedule Assignment Task List * Time Management: Robotics Project Weekly Schedule Assignment * Time Management: Robotics Project Weekly Schedule Rubric |
| **Anticipatory Set**  (May include pre-assessment for prior knowledge) | The purposes of this lesson are to help students understand how to manage a robotics project, to identify time management techniques, to develop and maintain work schedules and meet deadlines, and to develop a plan for production of a robotics project.   * **Say**   + I will assign each student a robotics project to use when completing the Time Management: Robotics Project Weekly Assignment. * **Ask**   + Do you have any questions? |
| **Direct Instruction \*** | Make a slide presentation in conjunction with the following outline:   1. Goals 2. Terms 3. Robotics Project 4. Learn to Manage Your Time 5. System for Scheduling and Managing Time 6. How Many Tasks and Hours? 7. Reflection #1 8. Create your weekly schedule 9. Reflection #2 10. Commitment to Time Management 11. Outline Your Robotics Project Tasks 12. Benefits of Scheduling Your Robotics 13. Conclusion 14. Resources 15. Assignment     1. Assign each student a robotics project.     2. Discuss slide presentation.     3. Refer to slide presentation to develop a time management plan for the project.     4. Review the Time Management: Robotics Project Weekly Schedule Assignment and Rubric handouts.     5. Determine the tasks needed to complete the robotics project.     6. Determine how many class periods the project will take.     7. Reflect on how difficult the project is.     8. Evaluate how prepared you are for completing the project.     9. Record the tasks to be completed in each class period on the weekly schedule handout.     10. Make a robotics project tasks to-do list.     11. Prioritize tasks on the project to-do list.     12. Rank the tasks from high-priority to low-priority (top to bottom).     13. Check to see if all tasks required to complete the project are listed.     14. Outline the time and tasks you work in red on your weekly schedule handout.     15. Turn in your Time Management: Robotics Project Weekly Schedule Assignment for a grade.   *Individualized Education Plan (IEP) for all special education students must be followed. Examples of accommodations may include, but are not limited to:*  *NONE* |
| **Guided Practice \*** | The students will take notes from the presentation and the discussion following the presentation.  *Individualized Education Plan (IEP) for all special education students must be followed. Examples of accommodations may include, but are not limited to:*  *NONE* |
| **Independent Practice/Laboratory Experience/Differentiated Activities \*** | The students will complete the Time Management: Robotics Project Weekly Schedule Assignment and turn in to teacher for a grade.  *Individualized Education Plan (IEP) for all special education students must be followed. Examples of accommodations may include, but are not limited to:*  *NONE* |
| **Lesson Closure** | The students will be able to share their time management plan for their robotics project. |
| **Summative/End of Lesson Assessment \*** | The students’ assignments are graded using the Time Management: Robotics Project Weekly Schedule Rubric.  *Individualized Education Plan (IEP) for all special education students must be followed. Examples of accommodations may include, but are not limited to:*  *NONE* |
| **References/Resources/**  **Teacher Preparation** | * The American Century Dictionary. (1995). New York, NY: Oxford University Press, Inc.   **Preparation**   * Have materials ready prior to the start of the lesson. * Have a robotics project available for each student and be ready to assign the project to each student. * Review and become familiar with the time management terminology. * Have a copy of the Time Management: Robotics Project Weekly Schedule Assignment and Rubric for each student. |
| **Additional Required Components** | |
| **English Language Proficiency Standards (ELPS) Strategies** |  |
| **College and Career Readiness Connection[[1]](#footnote-1)** |  |
| **Recommended Strategies** | |
| **Reading Strategies** |  |
| **Quotes** |  |
| **Multimedia/Visual Strategy**  **Presentation Slides + One Additional Technology Connection** |  |
| **Graphic Organizers/Handout** |  |
| **Writing Strategies**  **Journal Entries + 1 Additional Writing Strategy** |  |
| **Communication**  **90 Second Speech Topics** |  |
| **Other Essential Lesson Components** | |
| **Enrichment Activity**  (e.g., homework assignment) | The students will research 10 additional tips for time management. |
| **Family/Community Connection** |  |
| **CTSO connection(s)** | SkillsUSA  Technology Student Association (TSA) |
| **Service Learning Projects** |  |
| **Lesson Notes** |  |

1. Visit the Texas College and Career Readiness Standards at <http://www.thecb.state.tx.us/collegereadiness/CRS.pdf>, Texas Higher Education Coordinating Board (THECB), 2009. [↑](#footnote-ref-1)