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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** | Engineering Design and Presentation I |
| **Lesson/Unit Title** | Portfolio- Part 2 |
| **TEKS Student Expectations** | **130.410. (c) Knowledge and skills**(1) The student demonstrates professional standards/employability skills as required by business and industry. (D) The student is expected to use time-management skills in prioritizing tasks, following schedules, and tending to goal-relevant activities in a way that optimizes efficiency and results(2) The student gains knowledge of and demonstrates the skills necessary for success in the workplace(E) The student is expected to identify and use appropriate work habits(7) The student uses engineering design methodologies. (F) The student is expected to use an engineering notebook and portfolio to record the final design, construction, and manipulation of finished projects(8) The student applies concepts of engineering to specific problems. (D) The student is expected to use multiple software applications for concept presentations(9) The student designs products using appropriate design processes and techniques. (D) The student is expected to produce engineering drawings to industry standards |
| **Basic Direct Teach Lesson**(Includes Special Education Modifications/Accommodations and one English Language Proficiency Standards (ELPS) Strategy) |
| **Instructional Objectives** | The students will be able to:* Review the portfolio order and checklist and traditional print portfolio rubric and make recommendations for change needed.
* Discuss what they may have any questions about or feel needs to be shared.
* Apply requirements in the portfolio order and checklist and traditional print portfolio rubric.
* Express their creativity when compiling the portfolio.
* Organize artifacts into a three-ring binder or “scrapbook” binder to create a traditional print portfolio.
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| **Rationale** | Students will be able to apply all the knowledge and skills they have learned about two types of portfolios (traditional print and ePortfolio) and will create a traditional print portfolio that meets the criteria given in the rubrics and/or examples given. |
| **Duration of Lesson** | This lesson plan should take 2 to 3 weeks – 5-15 days @ approximately 45 minutes/day. |
| **Word Wall/Key Vocabulary***(ELPS c1a,c,f; c2b; c3a,b,d; c4c; c5b) PDAS II(5)* | None |
| **Materials/Specialized Equipment Needed** | * Portfolio Order and Checklist handout for each student
* Traditional Print Portfolio Rubric handout for each student
* 1” 3 ring binders (all the same color, style, etc.) for students to use if they do not bring their own. These should become teacher’s property.
* Writing utensil for students who do not have any
* Computer with internet access and printer
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| **Anticipatory Set**(May include pre-assessment for prior knowledge) | Portfolio Scavenger Hunt and gathering of the artifacts from the previous week.* **SAY:** Today we are going to start making your own traditional print portfolios.
* **SHOW:** The Portfolio Order and Checklist and Traditional Print Portfolio Rubric handouts.
* **ASK:** Is there anything you think we need to add to the check list or rubric?
* **SAY:** We will make changes if the whole class feels something is missing or wrong witheither of these. We want student ownership in this capstone unit.
* **ASK:** How should you organize your portfolio? (The questions are all Socratic in design. Aslong as the students participate and can explain WHY they feel that way, it is correct.)
* **ASK:** What should yours be stored in?
* **SAY:** Yes, a 3-ring binder or a scrap notebook.
* **SAY:** If you do not have your own, you will have to use mine and it becomes my property atthe end of the unit to show as examples if I so choose. If I do not decide to use them, then the artifacts in my notebooks will be recycled at the end of the year.
* **SAY:** Good luck and I will be helping you as you need it over the next 2-5 days as you createyour portfolio.
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| **Direct Instruction \*** | Outline | Instructor Notes |
| Timeline:2 to 3 weeks – 5-15 days @ approximately 45 minutes/day.Week 1: (1-5 days)Day 1 = Complete the Portfolio Scavenger Hunt handout.Days 2-5 = Hand back the Portfolio Scavenger Hunt handout. Begin to gather and select artifacts as outlined in check list and rubric.Week 2: (3-5 days)Days 6-10 = Create, organize, and compile the traditional print portfolio (per rubric) and examples the teacher provides. Give everyone a copy of the checklist and rubric. Gather the artifacts to be used.Week 3: (3-5 days)Days 11-15 = Create, organize, and compile the ePortfolio (per rubric) and examples the teacher provides using one of the free web designers.Week 2 - DAY 1I. Portfolio Order and Checklist and Traditional Print Portfolio Rubric A. Discuss checklist and rubric and make changes if whole class feels it needs to be doneWeek 2 - Day 2-5II. Create traditional print portfoliosA. Show the example of a traditional print portfolioB. Students will follow the checklist and rubricIII. What to use A. Either a 3-ring binder or scrap bookB. If teacher provides 1” 3 ring binder for students who need it, it becomes teacher’s property at the end.IV. OrganizationA. Up to each student to decideB. Must be some obvious organization usedV. Creativity A. Up to each studentB. Keep it professional | * Give students each a copy of the Portfolio Order and Checklist and the Traditional Print Portfolio Rubric handouts. Only make changes if the whole group feels it is needed.
* Go over the Portfolio Order and Checklist and Traditional Print Portfolio Rubric. Show the portfolio example, and discuss what they may have any questions about or feel needs to be shared. Only make changes to the checklist and rubric if the whole group feels it is needed.
* Show examples of a traditional print portfolio and discuss it.
* Students will put all the artifacts they have gathered into a traditional print portfolio.
* Students can use three ring binder or a “scrap book” binder. They will follow the checklist and the rubric.
* Have students bring in their own 3 ring binder or “scrap book”. Provide simple 1” 3 ring binders for those who cannot get one.
* Allow students to use their own method to organize it. They must meet the requirements of the checklist and grading rubric.
* Creativity is up to the student, but they need to keep it professional! They must meet the requirements of the checklist and grading rubric.
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| **Guided Practice \*** | The teacher guides classroom discussion about the Portfolio Order and Checklist and Traditional Print Portfolio Rubric. |
| **Independent Practice/Laboratory Experience/Differentiated Activities \*** | Students work on creating their own traditional print portfolio. |
| **Lesson Closure** | * **Question:** Why would you want to have a traditional print portfolio to show?
* **Answer:** Some colleges will only look at this method because the interviewers areintimidated by an ePortfolio. Also, many say they do not look at portfolios, but you can bring this in with you when you interview, and it can be an interviewing tool.
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| **Summative/End of Lesson Assessment \***  | **Informal Assessment:*** Class discussion about the Portfolio Order
* Checklist and Traditional Print Portfolio Rubric.

**Formal Assessment:*** Creating a traditional print portfolio is a major grade
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| **References/Resources/****Teacher Preparation** | * Have a copy of the Portfolio Order and Checklist and the Traditional Print Portfolio Rubric for each student.
* Before they start making it, they need to bring their own 3 ring binder or “scrap book.” For students who cannot or do not do this, have uniform 1” 3 ring binders available for them to use. If they do not bring their own and use yours, they become the teacher’s property to show the next year as examples. (Names of students are NOT to be shared.)
* Show portfolios that were graded A, B, C, D, F, so they have something to refer to in preparing their portfolio.
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| **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** | * Internet
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| **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) | Have students make their own ePortfolio with a website portfolio builder of their choice. |
| **Family/Community Connection** |  |
| **CTSO connection(s)** | SkillsUSATechnology Student Association |
| **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)