**Math-in-CTE Lesson Plan**

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| **Occupational Area: Keyboarding/Computer Applications**  **Lesson Title:** **Describe and Apply Alignment to Documents**    **By: Audra Nuckols** | **Lesson # 1** |
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| **CTE Concept(s):** Alignments and Formatting |
| **Math Concept(s):** Describe, Modeling, and Symmetry |

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| **Lesson Objective:** | Demonstrate how text “lines up” (e.g., align left, center, align right, and justify) |

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| **Common Core State Standards:** | CC.K–12.MP.4 Model with Mathematics  CC.K–12.MP.5 Use Appropriate Tools Strategically  [Reinforce symmetry: CC.4.G.3] |

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| **Supplies Needed:** | Microsoft Word  Keyboarding & Formatting text. | |
| **THE “7 ELEMENTS”** | | **TEACHER NOTES** (and answer key) |
| 1. **Introduce the CTE lesson.** 2. Properly formatting your documents is important as you prepare them for others to see. Today we are going to focus on the ***Paragraph*** group and look at the *alignment commands.* 3. Make sure your **Home** tab is selected; now locate your **Paragraph** group 4. On the 2nd row you will notice that the 1st command is highlighted … that means this command is on/active*.* | | 1. *Quick review of the* ***Ribbon* *Basics*–** *Tabs, Groups, Command.* 2. *After locating your* ***Paragraph Group****,**notice the commands are displayed in two (2) rows* 3. *Now point to (don’t click on) each command starting with the 1st one on the top row*    1. *What does the SuperTool tip say that it is?* ***Bullets***    2. *And the next?* ***Numbering***    3. *Continue –* ***Multilevel List, Decrease Indent, Increase Indent, Sort, Show/Hide***    4. *Now let’s move to the 2nd row:* ***Align Text Left, Center, Align Text Right, Justify, Line Spacing, Shading, Bottom Border*** 4. *The default for alignment is* ***Left****.* |
| * + - 1. **Assess students’ math awareness as it relates to the CTE lesson.**   What do you know about ***alignment****?*  Can you ***visualize left alignment***? What about ***right alignment***?  Have you seen text **centered?** What do you remember most about that text?  How would you define ***justify***? | | *Alignment tells us how something would ‘line up’; refers to arrangements in a straight line*  *Think of something lined up/even on the* ***left;*** *think of something lined up/even on the* ***right***  *Equal distance from all borders is the math term* ***symmetry*** *(balanced proportions); text spans out from the center point*  *To show something to be just or right; to defend; to acquit; to fit* ***a line*** *exactly into a desired length.* |
| * + - 1. **Work through the math example embedded in the CTE lesson.**   Identify and compare the four (4) types of alignments: *left, center, right, justify:*  a. Open the file **paragraphs** which is located in your data file folder.  b. Click in paragraph 1 and *verify* that the alignment is **left**.  c. Click in paragraph 2 and *change* the alignment to **center**.  d. Click in paragraph 3 and *change* the alignment to **right**.  e. Click in paragraph 4 and *change* the alignment to **justify**. | | *Walk around and observe to ensure students have opened the correct file and to give feedback as they click on each paragraph.* |
| * + - 1. **Work through *related, contextual* math-in-CTE examples.**   You will now complete *Drill 1* on page 84 in your textbook.  a. Review the illustration at the top of the page; then, read and follow the directions as given for Drill 1. | | *Provide an answer key showing what the finished Drill 1 should look like:*   * **Right align** your name * **Center** the title * **Left align** paragraph 1 * **Justify** paragraph 2 |
| * + - 1. **Work through the *traditional math* examples.**   Open the file **paragraph 2** located in your data file folder.  a. Click on the title and change the alignment to **center**.  b. Click in paragraph 1 and change the alignment to **justify**.  c. Click in paragraph 2 and change the alignment to **justify**.  d. Click in paragraph 3 and change the alignment to **right**. | | *Walk around and observe to ensure students have opened the correct file. Give feedback and check for understanding as they complete the exercise.* |

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| * + - 1. **Students demonstrate their understanding.**   Complete *Application 27-d1* on pages 91-92.  a. Read and follow the directions as given   * + - 1. **Formal assessment.**   **Identify** the alignment shown for each button:   * 1. Align Left   2. Center   3. Align Right   4. Justify  1. Align Left 2. Center 3. Align Right 4. Justify 5. Align Left 6. Center 7. Align Right 8. Justify 9. Align Left 10. Center 11. Align Right 12. Justify   Which two alignments represent **symmetry**?      A B C D  *Source of Formal Assessments: Sample release items from ACT, ACT COMPASS, ACT WorkKeys, Center for Occupational Research and Development, National Assessment of Educational Progress* | *Provide an answer key showing what the finished Application problem should look like:*   * ***Center*** *the title* * ***Justify*** *all four (4) paragraphs* * ***Right align*** *your name and the document filename name*   **Answers:**  **d. Justify**  **b. Center**  **c. Align Right**  **d. Align Left**  **A. and B.**  **\*** |