

Math-in-CTE Lesson Plan

Lesson Title: Describe and Apply Alignment to Documents	Lesson #
Writers: Darlene Phillips, Business, Bolingbrook HS and Mark Morrey, Math, Joliet Township HS	

Occupational Area: Business
CTE Concept(s): Alignments and Formatting
Math Concept(s): Describe, Modeling, and Symmetry

Lesson Objective:	Demonstrate how text “lines up” (e.g., align left, center, align right, and justify)
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]
Supplies Needed:	Microsoft Word Keyboarding & Formatting text

THE “7 ELEMENTS”	TEACHER NOTES (and answer key)
<p>1. Introduce the CTE lesson.</p> <p>a. 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 <i>alignment commands</i>.</p> <p>b. Make sure your Home tab is selected; now locate your Paragraph group</p> <p>c. On the 2nd row you will notice that the 1st command is highlighted ... that means this command is on/active.</p>	<p>a. Quick review of the Ribbon Basics– Tabs, Groups, Command.</p> <p>b. After locating your Paragraph Group, notice the commands are displayed in two (2) rows</p> <p>c. Now point to (don’t click on) each command starting with the 1st one on the top row</p> <p style="margin-left: 20px;">a. What does the SuperTool tip say that it is? Bullets</p> <p style="margin-left: 20px;">b. And the next? Numbering</p> <p style="margin-left: 20px;">c. Continue – Multilevel List, Decrease Indent, Increase Indent, Sort, Show/Hide</p> <p style="margin-left: 20px;">d. Now let’s move to the 2nd row: Align Text Left, Center, Align Text Right, Justify, Line Spacing, Shading, Bottom Border</p> <p>d. The default for alignment is Left.</p>
<p>2. Assess students’ math awareness as it relates to the CTE lesson.</p> <p>What do you know about alignment?</p> <p>Can you visualize left alignment? What about right alignment?</p> <p>Have you seen text centered? What do you remember most about that text?</p> <p>How would you define justify?</p>	<p><i>Alignment</i> tells us how something would ‘line up’; refers to arrangements in a straight line</p> <p>Think of something lined up/even on the left; think of something lined up/even on the right</p> <p>Equal distance from all borders is the math term symmetry (balanced proportions); text spans out from the center point</p> <p>To show something to be just or right; to defend; to acquit; to fit a line exactly into a desired length.</p>

<p>3. Work through the math example embedded in the CTE lesson. Identify and compare the four (4) types of alignments: <i>left, center, right, justify</i>:</p> <p>a. Open the file paragraphs which is located in your data file folder.</p> <p>b. Click in paragraph 1 and <i>verify</i> that the alignment is left.</p> <p>c. Click in paragraph 2 and <i>change</i> the alignment to center.</p> <p>d. Click in paragraph 3 and <i>change</i> the alignment to right.</p> <p>e. Click in paragraph 4 and <i>change</i> the alignment to justify.</p>	<p><i>Walk around and observe to ensure students have opened the correct file and to give feedback as they click on each paragraph.</i></p>
<p>4. Work through <i>related, contextual math-in-CTE</i> examples. You will now complete <i>Drill 1</i> on page 84 in your textbook.</p> <p>a. Review the illustration at the top of the page; then, read and follow the directions as given for Drill 1.</p>	<p><i>Provide an answer key showing what the finished Drill 1 should look like:</i></p> <ul style="list-style-type: none"> • Right align your name • Center the title • Left align paragraph 1 • Justify paragraph 2
<p>5. Work through the <i>traditional math</i> examples. Open the file paragraph 2 located in your data file folder.</p> <p>a. Click on the title and change the alignment to center.</p> <p>b. Click in paragraph 1 and change the alignment to justify.</p> <p>c. Click in paragraph 2 and change the alignment to justify.</p> <p>d. Click in paragraph 3 and change the alignment to right.</p>	<p><i>Walk around and observe to ensure students have opened the correct file. Give feedback and check for understanding as they complete the exercise.</i></p>
<p>6. Students demonstrate their understanding. Complete <i>Application 27-d1</i> on pages 91-92.</p> <p>a. Read and follow the directions as given</p>	<p><i>Provide an answer key showing what the finished Application problem should look like:</i></p> <ul style="list-style-type: none"> • Center the title • Justify all four (4) paragraphs • Right align your name and the document filename name

7. Formal assessment.

Identify the alignment shown for each button:



- a. Align Left
- b. Center
- c. Align Right
- d. Justify



- a. Align Left
- b. Center
- c. Align Right
- d. Justify



- a. Align Left
- b. Center
- c. Align Right
- d. Justify



- a. Align Left
- b. Center
- c. Align Right
- d. Justify

Answers:

d. Justify

b. Center

c. Align Right

d. Align Left

Which two alignments represent **symmetry**?



A



B



C



D

A. and B.

Source of Formal Assessments: Sample release items from ACT, ACT COMPASS, ACT WorkKeys, Center for Occupational Research and Development, National Assessment of Educational Progress