

A Crosswalk
UDL and Marzano’s Instructional Strategies for Effective Instruction

UDL Guidelines & Checkpoints	Instructional Strategies for Effective Instruction*	Examples of Tools & Resources
<p>REPRESENTATION Provide options for comprehension</p> <ul style="list-style-type: none"> • Highlight patterns, critical features, big ideas, and relationships (3.2) • Guide information processing, visualization, and manipulation (3.3) <p>Provide options for language, mathematical expressions, and symbols</p> <ul style="list-style-type: none"> • Clarify vocabulary and symbols (2.1) 	<p>Identifying Similarities and Differences (Comparing, Classifying, Creating Metaphors, & Creating Analogies)</p> <ul style="list-style-type: none"> ▪ Venn Diagram ▪ Comparison Matrix ▪ Graphic organizers for <ul style="list-style-type: none"> ○ Classification ○ Metaphors ○ Analogies 	<p>Graphic Organizers http://www.educationoasis.com/curriculum/graphic_organizers.htm</p> <p>Lots of different graphic organizers. http://aim.cast.org/learn/historyarchive/backgroundpapers/graphic_organizers_udl</p> <p>Houghton Mifflin Harcourt-Education Place: Graphic organizers for different purposes and ages (http://www.eduplace.com/graphicorganizer/)</p>
<p>REPRESENTATION Provide options for perception</p> <ul style="list-style-type: none"> • Offer alternatives for auditory information (1.2) <p>Provide options for comprehension</p> <ul style="list-style-type: none"> • Guide information processing, visualization, and manipulation (3.3) 	<p>Representing Knowledge (Nonlinguistic Representations)</p> <ul style="list-style-type: none"> ▪ Graphic Organizers ▪ Cause and Effect ▪ Episode Pattern ▪ Concept Pattern ▪ Illustrations 	<p>Graphic Organizers http://www.educationoasis.com/curriculum/graphic_organizers.htm</p> <p>Houghton Mifflin Harcourt-Education Place: Graphic organizers for different purposes and ages (http://www.eduplace.com/graphicorganizer/)</p>

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<p>REPRESENTATION Provide options for language, mathematical expressions, and symbols</p> <ul style="list-style-type: none"> Clarify vocabulary and symbols (2.1) Illustrate through multiple media (2.5) <p>Provide Options for Comprehension</p> <ul style="list-style-type: none"> Highlight patterns, critical features, big ideas, and relationships (3.2) Maximize transfer and generalization (3.4) 	<p>Specific Types of Knowledge</p> <ul style="list-style-type: none"> 5-step Process for Teaching Vocabulary <ul style="list-style-type: none"> Imagery Based Details <ul style="list-style-type: none"> Time Sequences Cause & Effect Organizing Ideas <ul style="list-style-type: none"> Generalizations Correlations Skills & Processes <ul style="list-style-type: none"> Build Models Word Problems Writing Process Problem-solving 	<p>Interactive Story Elements http://www.learner.org/interactives/story/index.html</p> <p>Shahi – visual dictionary http://blachan.com/shahi/</p> <p>Visuwords – online graphic dictionary http://www.visuwords.com/</p> <p>Merriam Webster Visual Dictionary (http://visual.merriam-webster.com/)</p>
<p>ACTION AND EXPRESSION Provide options for expression and communication</p> <ul style="list-style-type: none"> Use multiple tools for construction and composition (5.2) Build fluencies with graduated levels of support for practice and performance (5.3) <p>Provide options for executive functions</p> <ul style="list-style-type: none"> Support planning and strategy development (6.2) Facilitate managing information and resources (6.3) 	<p>Summarizing and Note Taking</p> <ul style="list-style-type: none"> Think-Alouds Summary Frames <ul style="list-style-type: none"> Narrative Definition Argumentation Problem/solution Conversation Reciprocal Teaching Note taking <ul style="list-style-type: none"> Informal outline Webbing 	<p>Wordle http://www.wordle.net/</p> <p>Tagxedo http://www.tagxedo.com/</p> <p>UDL Editions http://udleditions.cast.org/</p> <p>Creating Executive Summaries http://word.tips.net/T001809_Creating an Executive Summary.html</p> <p>On line Research-http://cst.cast.org/cst/auth-login</p> <p>Note taking- http://coe.jmu.edu/learningtoolbox/purposerational.html</p> <p>Problem Solving- http://coe.jmu.edu/learningtoolbox/purposerational.html</p> <p>Xmind – mind mapping tool http://www.xmind.net/</p>

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<p>ENGAGEMENT Provide options for recruiting interest</p> <ul style="list-style-type: none"> • Optimize individual choice and autonomy (7.1) <p>Provide options for sustaining effort and persistence</p> <ul style="list-style-type: none"> • Foster collaboration and community (8.3) <p>Provide options for self-regulation</p> <ul style="list-style-type: none"> • Promote expectations and beliefs that optimize motivation (9.1) • Facilitate personal coping skills and strategies (9.2) 	<p>Learning Groups/ Cooperative Learning</p> <ul style="list-style-type: none"> ▪ Informal, formal and base groups 	<p>Cooperative Learning Math-- http://www.edutopia.org/math-social-activity-cooperative-learning-video</p> <p>Edutopia http://www.edutopia.org/math-social-activity-cooperative-learning-video</p>
<p>ENGAGEMENT Provide options for sustaining effort and persistence</p> <ul style="list-style-type: none"> ▪ Increase mastery-oriented feedback (8.4) <p>Provide options for self-regulations</p> <ul style="list-style-type: none"> ▪ Develop self-assessment and reflection (9.3) 	<p>Reinforcing Effort and Providing Recognition</p> <ul style="list-style-type: none"> ▪ Chart Effort & Achievement ▪ Providing Recognition <ul style="list-style-type: none"> ○ Pause, Prompt, Praise 	<p>Create a Graph http://nces.ed.gov/nceskids/createAgraph/default.aspx</p>

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Multiple UDL Guidelines & Checkpoints		
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<p>REPRESENTATION Provide options for comprehension</p> <ul style="list-style-type: none"> • Maximize transfer and generalization (3.4) <p>ENGAGEMENT Provide options for self-regulation</p> <ul style="list-style-type: none"> • Heighten salience of goals and objectives (8.1) • Increase mastery-oriented feedback (8.4) 	<p>Homework and Practice</p> <ul style="list-style-type: none"> ▪ Communicating a Homework Policy ▪ Clarifying the Purpose of Homework ▪ Using Homework Assignment Notebooks/Sheets ▪ Charting Practice <ul style="list-style-type: none"> ○ Learning line 	<p>Goal Setting Work Sheets http://worksheetplace.com/index.php?function=DisplayCategory&showCategory=Y&links=2&id=279&link1=31&link2=279</p> <p>SMART Goals http://www.teachersatrisk.com/2009/02/08/helping-my-students-set-goals-the-smart-way/</p> <p>Self Assessment--http://www.facesoflearning.net/</p>
<p>ACTION & EXPRESSION Provide options for executive functions</p> <ul style="list-style-type: none"> • Guide appropriate goal-setting (6.1) • Support planning and strategy development (6.2) • Enhance capacity for monitoring progress (6.4) 	<p>Goal Setting and Providing Feedback</p> <ul style="list-style-type: none"> ▪ Personalizing objectives ▪ Providing Feedback <ul style="list-style-type: none"> ○ Criterion-referenced Feedback (rubrics) 	<p>Goal Setting Work Sheets http://worksheetplace.com/index.php?function=DisplayCategory&showCategory=Y&links=2&id=279&link1=31&link2=279</p> <p>SMART Goals http://www.teachersatrisk.com/2009/02/08/helping-my-students-set-goals-the-smart-way/</p> <p>Self Assessment--http://www.facesoflearning.net/</p>

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<p>ENGAGEMENT Provide options for sustaining effort and persistence</p> <ul style="list-style-type: none"> • Heighten salience of goals and objectives (8.1) • Increase mastery-oriented feedback (8.4) <p>Provide options for self-regulation</p> <ul style="list-style-type: none"> • Develop self-assessment and reflection (9.3) 	<p>(repeated from previous page) Goal Setting and Providing Feedback</p> <ul style="list-style-type: none"> ▪ Personalizing objectives ▪ Providing Feedback <ul style="list-style-type: none"> ○ Criterion-referenced Feedback (rubrics) 	<p>Teacher Vision Creating Rubrics-- https://www.teachervision.com/teaching-methods-and-management/rubrics/4521.ht Creating Rubrics--http://rubistar.4teachers.org/</p>
<p>REPRESENTATION Provide options for comprehension</p> <ul style="list-style-type: none"> • Activate or supply background knowledge (3.1) • Highlight patterns, critical features, big ideas, and relationships (3.2) • Guide information processing, visualization, and manipulation (3.3) <p>ACTION & EXPRESSION Provide options for expression and communication</p> <ul style="list-style-type: none"> • Build fluencies with graduated levels of support for practice and performance (5.3) 	<p>Generating and Testing Hypotheses</p> <ul style="list-style-type: none"> ▪ Explaining Hypotheses and Conclusions ▪ Problem Solving <ul style="list-style-type: none"> ○ Providing Models ○ Graphic Organizers 	<p>CAST Science Writer-- http://www.cast.org/learningtools/science_writer/index.html</p> <p>Thinking Blocks (http://www.thinkingblocks.com/) iSolveit: MathScaled (http://isolveit.cast.org/p/scaled/) Shodor:</p> <p>Process Problem solving organizer (http://www.eduplace.com/graphicorganizer/pdf/stepochart_eng.pdf)</p>

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* Source: Marzano, R.J., Norford, J.S., Paynter, D.E., Pickering, D.J., & Gaddy, B.B. (2001). *A Handbook for Classroom Instruction That Works*. Alexandria, VA: ASCD.