OVERVIEW

• Participants will become familiar with instructional supports and resources for teachers of students with significant cognitive disabilities.

  • How to Teach State Standards to Students with Significant Cognitive Disabilities
  • Writing rubrics
  • NCSC Wiki resources
HIGH EXPECTATIONS
THE GOAL OF THE MULTI-STATE ALTERNATE ASSESSMENT (MSAA)

• To develop a system of assessments supported by curriculum, instruction, and professional development to ensure that students with the most significant cognitive disabilities achieve increasingly higher academic outcomes and leave high school ready for post-secondary options.
MSAA

• MSAA is designed to assess students with significant cognitive disabilities.
• This Alternate Assessment measures academic content that is aligned to and derived from the state’s content standards.
• This test contains many built-in supports that allow students to take the test and communicate what they know and can do as independently as possible.
• MSAA is administered in the areas of ELA and Mathematics in Grades 3-8 and 11.
UNIVERSAL DESIGN FOR LEARNING
FOLLOWING THE PRESENTATION

• http://www.azed.gov/assessment//msaa/

LIZ (PAGES 11-12)  
GRADE 10

• No speech, difficulty walking, short attention span
• Severe intellectual disability
• Learned social skills: walking to someone, showing materials, vocalizing a sound
• Can respond to two choice options
• Understands humor
• Emerging literacy and numeracy skills
LIZ’S MATH INSTRUCTION (PAGES 21-22)

• Linear equations
  • Student responds to choices for the parts of the equation
  • Provide manipulatives
  • Use a number line for one-to-one correspondence
LIZ'S ELA INSTRUCTION (PAGES 39-40)

• Reading a Novel
  • Use pictures for the characters
  • Use pictures of the characters to answer comprehension questions
Welcome to the National Center and State Collaborative Wiki!

The National Center and State Collaborative (NCSC) is a project led by five centers and 24 states, building an alternate assessment based on alternate achievement standards (AA-AAS) for students with the most significant cognitive disabilities. The shared goal of the NCSC partners is to ensure that students with the most significant cognitive disabilities achieve increasingly higher academic outcomes and leave high school ready for post-secondary options. The wiki and the materials hosted here help educators accomplish the NCSC goals by supporting instruction aligned to the Common Core State Standards (CCSS). The materials on the wiki also be used in states that are not using the CCSS. Much of the content that is covered on the wiki will also appear in other Mathematics and English Language Arts state standards.

Wiki Resources
- Curriculum Resources - What to Teach: Curriculum Resources are reference materials created to reinforce educators’ understanding of curriculum content (found in the top half of the resource schema below).
- Instructional Resources - How to Teach: Instructional Resources are reference materials created to support classroom teaching (found in the bottom half of the resource schema below).
- Educate Professional Development and Parent Resources - Presentations and interactive modules designed to supplement written NCSC materials as well as written summaries about the NCSC project, explore teaching and learning for students with significant cognitive disabilities, and provide broad coverage of topics of interest to educators and parents alike.
- Parent Tips and Tools - These documents include a user guide, a navigation tool, and a more detailed wiki navigation guide. In addition, there is a wiki tips series, made up of eight short documents, that helps parents use the resources.
- Sample Items - The Sample Items presentation describes the NCSC Alternate Assessment Design and provides examples of English language Arts and Mathematics items.
- Communication Tools Kit - The National Center and State Collaborative developed the Communication Tools Kit as a professional development resource for teachers and speech language pathologists serving students with disabilities. This series of seven modules and an introductory Call to Action identifies the important features of high-quality communication intervention. Professional development certificates are available for participants upon completion of the series.

Quick Links
- All Resources - Browse curriculum and instructional resources in the wiki by category (CCSs, Element Cards, Content Modules, etc)
- NCSC Partners - Parent Resources: The NCSC Partners website includes a wealth of information available to parents and interested others. The resources referenced on this site include summaries, explanations and descriptions of work related to the NCSC project. These topics of this work include: NCSC Project Descriptions, Curriculum and Instructional Resources, Alternate Assessment, ITP Team Guidelines for Participation in Alternate Assessment, College and Career Readiness for Students with Significant Cognitive Disabilities, Communication Competencies, and tools for sharing NCSC information.
- NCSC Partners: Visit ncscpartners.org for more information about the National Center and State Collaborative.

The SCHOOLS for Common Core State Standards Resources
The graphic below presents the relationships between Curriculum and Instructional Resources developed in the NCSC grant. Click on the name of a resource to access further information in the wiki.

https://wiki.ncscpartners.org/index.php/Main_Page
This resource can be implemented immediately.

Focus on explicit instruction and best practices for teaching students with significant cognitive disabilities.
WHAT IS INCLUDED IN IR GUIDE?

- Overview of Systematic Instruction
- Importance of Finding a Response Mode
- Explanation of Instructional Strategies and “how to”
- Provides sample script for math and ELA skill for each instructional strategy
- Troubleshooting Q&A

**Scripts for how to do:**

- Constant Time Delay (CTD)
- System of Least Prompts (LIP)
- Model, Lead, Test
- Example/Non-example Training
NCSC INSTRUCTIONAL RESOURCES
CORE CONTENT CONNECTORS (CCCS)

• Identify the most salient grade-level, core academic content in ELA and mathematics found in both the Common Core State Standards (CCSS) and the Learning Progression Framework (LPF);

• Illustrate the necessary knowledge and skills in order to reach the learning targets within the LPF and the CCSS;

• Focus on the core content, knowledge and skills needed at each grade to promote success at the next; and

• Identify priorities in each content area to guide the instruction for students in this population and for the alternate assessment.

• These are not alternate standards
• There is not a one to one correspondence for every state standard
• These are not a check off list
NC SC INSTRUCTIONAL RESOURCES
• Utilized by teachers to:
  – Share a common language;
  – Plan multi-grade instruction for students who participate in the AA-AAS with a wide range of abilities and challenges;
  – Support developed instructional units that will include all students and will promote the use of Universal Design of Learning; and
  – Engage in collaborative discussion and delivery of instruction.

• Include Instructional Families and Element Cards.
### Distribution of Instructional Families: Patterns, Relations and Functions

<table>
<thead>
<tr>
<th>Grade K</th>
<th>Grade 1</th>
<th>Grade 2</th>
<th>Grade 3</th>
<th>Grade 4</th>
<th>Grade 5</th>
<th>Grade 6</th>
<th>Grade 7</th>
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#### Instructional Families
- Representing and Modeling Problems
- Describing and Extending Patterns
- Problem Solving and Using Variables
- Proportional Relationships and Graphing
## GRADUATED UNDERSTANDINGS (GUS) AND INSTRUCTIONAL FAMILIES

### Instructional Families

#### Overview of CCCs: Patterns, Relations and Functions

<table>
<thead>
<tr>
<th>Describing and Extending Patterns</th>
<th>Problem Solving and Using Variables</th>
<th>Proportional Relationships and Graphing</th>
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<tr>
<td><strong>Grade 5</strong></td>
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<td>6.8.26</td>
<td>6.8.27</td>
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</tbody>
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**Legend for Instructional Families**

- **E**: Essential
- **E.E**: Essential and Expected
- **E.E.E**: Essential, Expected, and Extended
ELEMENT CARD: MATH

**CCSS:** 8.EE.B.5
**Graph proportional relationships, interpreting the unit rate as the slope of the graph.** Compare two different proportional relationships represented in different ways. For example, compare a distance-time graph to a distance-time equation to determine which of two moving objects has greater speed.

**CCC:** 8.PR.F.2f
**Represent proportional relationships on a line graph.**

**Strand:** Patterns, Relationships and Functions

**Progress Indicator:** 8.PR.F.2f
**Representing and computing unit rates associated with ratios of lengths, areas, and other quantities measured in like or different units.**

**Concrete Understandings:**
- Recognize a positive relationship between two variables.

**Representation:**
- Graph a series of coordinates on a graph
- Identify given coordinates \((x, y)\) as a point on a graph
- Identify the intercept(s) on a graph
- Understand concepts, vocabulary, and symbols: coordinates, ordered pairs \((x, y)\), intercept, grid, axis, point, proportion, line, slope

**Essential Understanding:**

**Suggested Instructional Strategies:**
- Teach explicitly that a coordinate grid has two perpendicular lines, or axes, labeled like number lines.
- Teach explicitly how to recognize the relationship between \(y\) and \(x\) using the coordinates of several points (e.g., \(y\) increases as \(x\) increases; the ratio is the same for all values if they are directly proportional).
- Provide multiple examples of line graphs with different labeled coordinates and slopes.
- Teach explicitly how to plot coordinates on a grid and draw the line.
- Teach explicitly how to define a line provided on a grid by multiple coordinates.
- Teach explicitly simple distance-time problems that illustrate how the rates of two objects can be represented, analyzed, and described graphically.

**Task Analysis:**
- Provide a series of proportional coordinates
  - Present a labeled graph
  - Identify the \(x\) coordinate and \(y\) coordinate and plot each point
  - List coordinates on a T-chart, \((x\) in one column and \(y\) in the other) for each set of coordinates
  - State the proportional relations: \(\ldots\)

**Supports and Scaffolds:**
- Grid paper with raised perpendicular lines (horizontal and vertical lines) and points
- Models
- T-Chart, graphic organizer
Grades 3 – 5 Reading Element Card – Informational Text – Identifying Text Structure

**Grades 6 students:**

CCSS: 6.RI.1 Describe the overall structure (e.g., chronology, comparison, cause/effect, problem/solution) of events, ideas, concepts or information in a text or part of a text.

**Grades 7 students:**

CCSS: 7.RI.2 Use text features (e.g., headings, glossary) to locate information relevant to a given topic or question.

**Grades 8 students:**

CCSS: 8.RI.3 Use text features (e.g., headings, glossary) to locate information relevant to a given topic or question.

**Essential Understanding:**

Identify the text features (e.g., charts, illustrations, maps, titles) that help locate information.

Locate information in a variety of text features.

THEN

Identify text features (e.g., headings, glossary) that help locate information.

**Suggested Instructional Strategies:**

- Use the day to teach text features.
- Provide a system of labels to prompt the use of text features.

**Suggested Scaffolds and Supports:**

- Interactive whiteboard
- Teach using meaningful content from a variety of mediums (e.g., internet)
- Highlight information within the chart, map, or diagram
- Pictures, objects or tactile representations to illustrate the key information on a chart, graph, or map
- Sentence strips that reflect the key information on a chart, graph, or map
- There are numerous text features. Select a few at a time that are priorities for the students (e.g., bolded text).

**Discuss to Understand**

Compare Literary Text to Informational Text (compare/contrast):

- Provide students with a few examples of literary texts and a few examples of informational texts. Identify each text's type for the students.

- Invite the students to verbally explain the differences between the two types of texts. (e.g., how are the informational texts different from the literary texts? What do the informational texts have that the literary texts do not?)

- Explain what text features are (e.g., captions tell us what a picture, illustration, chart or graph is about; timelines summarize important information chronologically).

- After completing the activity above, have students circle, highlight, or otherwise denote the text features found in the sample informational texts.

- Chart each type of text feature, and have students discuss the purpose of each.

- Provide students with an additional sample informational text.

**Text divisions—ask students to identify how the text is organized and presented:**

1. Lead students through the passage while reading aloud.
2. Have students look over the passage.
3. Highlight the special text features: title, headings, photos, etc.
4. Ask students to discuss the purpose and usefulness of the text features.
   - Why do you think the author included a map, diagram, headings, etc.?
   - What does the selection text feature do to help you as a reader?

**Model to Understand**

- Model how to use text features using the Think Aloud strategy. (e.g., "The title tells me I’m going to read about a tower that might fall. Certain words are boldfaced — these are important, so I’ll try to remember them. There is a photograph and a diagram — I can use these to get a clear picture in my mind of what I’m reading.")

- Use a System of Least Prompts to teach students to: locate text features, locate signal words, find words in a glossary, locate title, use an index.

- Teach explicitly using a task analysis. For example, steps to finding a word in a glossary:
  1. Look at the first letter of the word to be located (e.g., "g"). Use the guide words in the glossary to locate words with the same letter (e.g., "g").
  2. Look at the next letter in the word to be located (e.g., "p") and follow the words down the column until you locate the first word with the same first letter.
  3. Continue with additional letters until the desired word is located.
NCSC INSTRUCTIONAL RESOURCES
CURRICULUM RESOURCE GUIDES: MATHEMATICS AND ELA

TOPICS: Data Analysis, Equations, Measurement and Geometry,

TOPICS: Reading Informational Texts and Vocabulary Acquisition and Use

• Provides guidance for teaching the standards to students with the most significant cognitive disabilities;

• Provides examples for differentiating instruction for a wide range of students in multiple grade levels; and

• Delineates the necessary skills and knowledge students need to acquire the content.
• Content

- Explanation of how topics are taught in a general education setting, common misunderstandings, and prior knowledge and skills needed
- Activities general education teachers use
- CCCs and CCSSs
- Activities for use in real world contexts
- Promoting college and career readiness
- Incorporating UDL
NC SC INSTRUCTIONAL RESOURCES
CONTENT MODULES

• Provides explanations and examples of the mathematic or ELA concepts contained in the CCSS that may be difficult to teach or unfamiliar to special education teachers;
• Promotes an understanding of Math and ELA concepts so a teacher can begin to plan how to teach the concepts to students.

### Mathematics
- Coordinate Plane Content Module
- Expressions Content Module
- Fractions and Decimals Content Module
- Functions Content Module
- Linear Equations Content Module
- Perimeter, Area and Volume Content Module
- Radicals and Exponents Content Module
- Ratios and Proportions Content Module

### English/Language Arts
- Author's Purpose and Point of View Content Module
- Informational Writing Content Module
- Main Idea, Theme, and Details Content Module
- Narrative Writing Content Module
- Persuasive Writing Content Module
- Summarizing and Inferencing Content Module
- Text Structure Content Module
- Vocabulary and Acquisition Content Module
Ideas to support vocabulary learning

- Use visual representations

  Dilation example:

  ![Dilation example diagram]

  - Have students distinguish between a ratio and not a ratio:
    - 11 to 20
    - 11.20
    - 11.2
    - 21
    - 7
    - 8.5
    - Not a ratio
    - Not a ratio

  - Have students identify corresponding angles and sides when comparing two polygons:
    - In this example, corresponding angles are color coded.

  - Review similar and not similar figures:
    ![Review similar and not similar figures]

UNIVERSAL DESIGN FOR LEARNING

Some examples of options for teaching ratio and proportions to students who may present instructional challenges due to:

- Sensory differences such as blindness, deafness, or intellectual disabilities
- Physical disabilities or motor deficiencies
- Extreme limited oral or written expression
- Lack of an extremely limited use of speech

Provide multiple options:
- Talking calculators
- Text-based online or offline versions (e.g., for students who are visually impaired)
- Visual models or other visual aids
- Physical models or other physical aids
- Computers or other digital devices
- Diagrams or other kinds of visual aids

Provide text-based options:
- Braille or other tactile aids
- Text-based online or offline versions
- Diagrams or other visual aids

Provide multiple representations:
- Multisensory input
- Visual input
- Auditory input

Option for representation:
- Visual representation
- Auditory representation
- Multisensory representation

Possible contextual display of information:
- Multiple representations
- Multisensory input
- Auditory input

Possible contextual display of information:
- Multisensory input
- Auditory input
- Visual input
NCSC INSTRUCTIONAL RESOURCES
• There is one UDL Instructional Unit for each ELA and Math at the elementary, middle school, and high school levels.
• Resources and printable materials are provided. These are designed to be complete lessons.
• Each lesson includes objectives, essential questions, vocabulary, materials, lesson introduction, lesson body, practice, and closure.
### Additional Considerations for Emerging Readers and Emerging Communicators

1. Provide picture and/or tactile and/or object representations of relevant vocabulary paired with the written word as it is mentioned during presentation or discussion for rectangle, area, perimeter as well as the meanings of each word.

2. Create math journals to record vocabulary, formulas, and notes.

3. Provide the formulas for area and perimeter as the concepts of each are discussed.

4. During discussion, provide picture representation of real world uses for area and perimeter.

5. As students work in small groups or pairs, ensure they have a means for gaining their group members’ or partner’s attention and a means for contributing to the discussion.

6. Students may use their math journals or a graphic organizer to collect/store information gathered during group.

7. To find area and perimeter, use grid paper, count/mark/tally each unit along the length of the figure to determine length and count/mark/tally each unit along the width of the figure to determine the width.

8. Use the formulas to determine area and perimeter.
   - A list of formulas may be used by the student as a reference.

9. Student may be presented with manipulatives of a unit and the rectangle drawn on grid paper.
   - Students determine area and perimeter by placing the manipulative units on each unit around the rectangle on the grid paper to demonstrate perimeter as well as within the rectangle to demonstrate area.
MASSIS AND LASSIS

• Provides examples of how to teach math and ELA concepts using meaningful activities;

• Incorporates evidence-based instruction from research;

• Provides teaching scripts for teachers who may not have extensive training in systematic instruction with a guide for instruction with graduating levels of difficulty;

• Can be embedded in general education lessons with a mixed ability group OR taught to a small group or an individual student; and

• Provide data sheets and skills tests.
Wiki Resources

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WRITING PROMPT RUBRICS

• http://www.azed.gov/assessment/msaa/

![Writing Scoring Rubrics](image)

**Grade 3 - Grade 4 - Grade 5 - Grade 6 - Grade 7 - Grade 8 - Grade 11**
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