



## Students with ASD: What Makes Teaching Different?

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A University Center of Excellence in Developmental Disabilities Education, Research and Services (UCEDD)

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### Objectives

- Participants can identify at least three of the core deficits of autism spectrum disorder
- Participants can state why teaching is different for students with ASD based on the core deficits
- Participants will be able to identify at least one strategy to use to modify an assignment for either an elementary, middle or high school student with ASD



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### Welcome and Introductions



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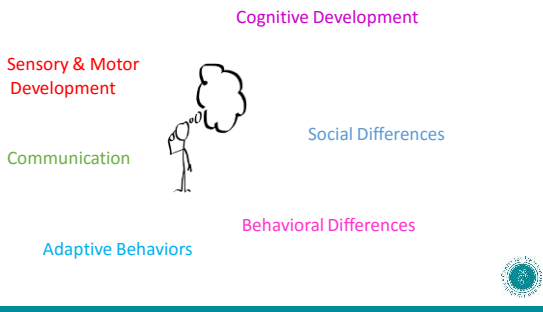
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## Core Deficits of Autism Spectrum Disorder

Differences or Difficulties in:




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## Cognitive Development

- Variable attending skills
- Weak organizational abilities
- Trouble with detail vs. concepts
- Executive Functioning
- Generalization




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## Communication

- Joint Attention
- Difficulty understanding symbol use
- Verbal skills maybe absent or limited
- Reciprocity difficult
- Wide range of differences in terms of communication




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### Social Differences

- Lack of Empathy
- Social Reciprocity
- Difficulties in social interactions with peers
- Decreased use and understanding of nonverbal communication



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### Behavioral Differences

- Receptive behaviors
- Stereotyped behaviors
- Behavior may resemble noncompliance



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### Sensory and Motor Development

- Motor abilities
- Atypical Sensory Responses
- Motor Stereotypies
- Sensory/Arousal modulation
- Visual often most functional



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### Adaptive Behaviors

- Independent performance of daily activities



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### What's Next?



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### Case Study: Elementary Math Match the Coins

Example:

Minimal Assistance:

- Provide entire assignment at once
- Provide a visual of facts that may be needed to complete the assignment
- Organize the assignment and supplies needed to complete the task
- Use REAL coins



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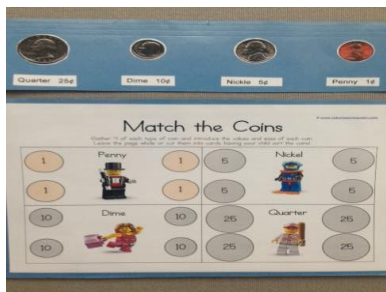
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Case Study: Elementary Math  
Match the Coins




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Case Study: Elementary Math  
Match the Coins

Example:

Moderate Assistance:

- Provide a visual of facts that may be needed to complete assignment
- Present the assignment in smaller sections
- Organize materials needed for the task
- Use REAL coins




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Case Study: Elementary Math  
Match the Coins




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Case Study: Elementary Math  
**Match the Coins**

Example:

Maximum Assistance

- Use REAL coins
- Provide visual directly where needed
- Avoid transferring information from one document to another
- Provide one task at a time



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Case Study: Elementary Math  
**Match the Coins**



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Case Study: Elementary Reading  
**Interactive Books**

Example:

Minimal Assistance

- Ensure the reading material is at the student's reading level
- Know the goal of the assignment
- Organize the assignment
- Present the entire book with multiple answer options



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### Case Study: Elementary Reading Interactive Books



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### Case Study: Elementary Reading Interactive Books

Example

Moderate Assistance

- Visual bank of icons to match words-to-words or pictures-to-pictures
- Sight Words: add an interactive visual support
- If possible present pages in small sections, if not skip pages



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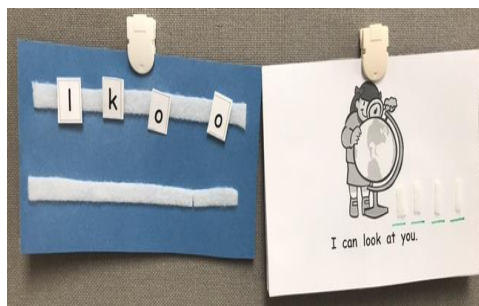
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### Case Study: Elementary Reading Interactive Books



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### Case Study: Elementary Reading Interactive Books



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### Case Study: Elementary Reading Interactive Books

Example:

#### Maximum Assistance

- Matching picture icons with correlating pictures on the previous page
- No distractors used, only provide the correct response
- Present one page at a time
- Know the goal of the assignment



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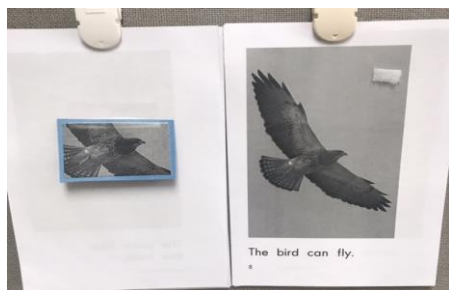
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### Case Study: Elementary Reading Interactive Books



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Case Study: Elementary Writing  
Journal Writing

Example:

Minimal Assistance

- Provide a topic prompt
- Provide a visual prompt
- Provide topic options if possible
- Organize the assignment
- Know your goal for the assignment




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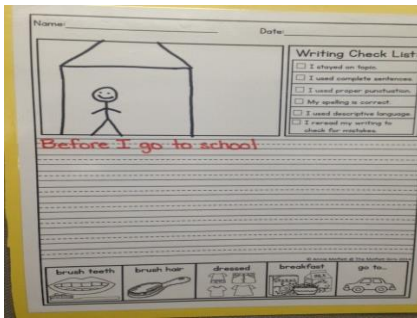
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Case Study: Elementary Writing  
Journal Writing




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Case Study: Elementary Writing  
Journal Writing

Example:

Moderate Assistance

- Provide a topic and/or visual prompt
- High interest topics
- Organize assignment
- Provide the beginning of the sentence with ways to utilize visuals




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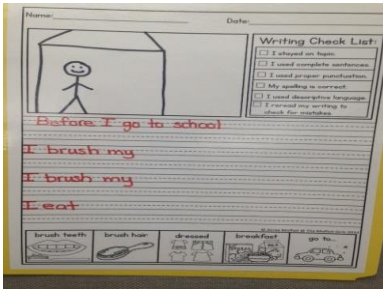
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Case Study: Elementary Writing  
Journal Writing




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Case Study: Elementary Writing  
Journal Writing

Example:

Maximum Assistance

- Provide topic and or visual prompt
- Organization
- Pre-made sentences
- Shorten assignments
- Know your goal for the assignment




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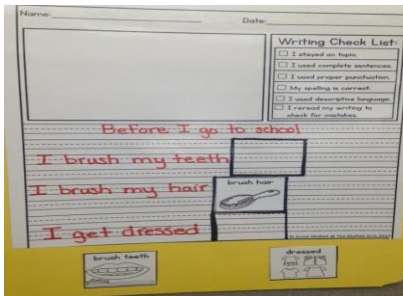
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Case Study: Elementary Writing  
Journal Writing




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## Case Study: Middle School Math Word Problems

Example:

### Minimal Assistance

- Provide visual of the meaning of words that will be used. Example: More (+) Total (=)
- Allow the student to complete the problem on the paper you provide them
- Avoid transferring information




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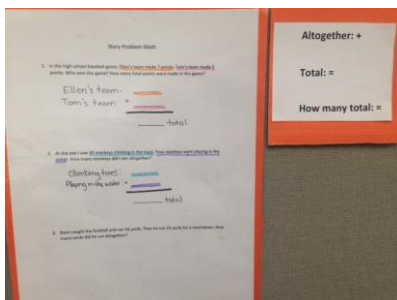
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## Case Study: Middle School Math Word Problems




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## Case Study: Middle School Math Word Problems

Example:

### Moderate Assistance

- Try to use word problems with visuals within the statements
- Provide word problems with one – two steps
- Provide 1-2 problems at one time




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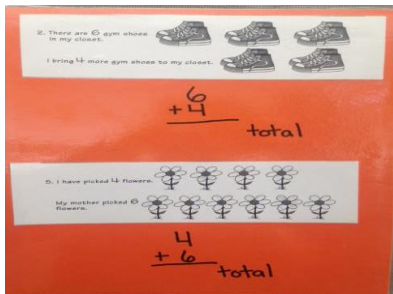
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Case Study: Middle School Math  
Word Problems




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Case Study: Middle School Math  
Word Problems

Example:

Maximum Assistance

- Present one problem at a time
- Organize the word problem
- Provide visuals of what needs to be done to complete the problem
- Use manipulatives




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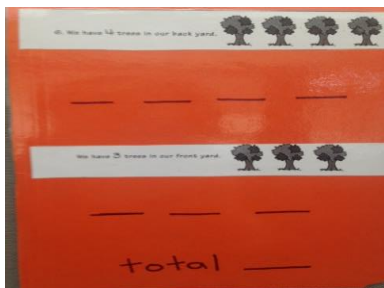
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Case Study: Middle School Math  
Word Problems




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### Case Study: Middle School Reading Comprehension

Example:

#### Minimal Assistance

- Know the goal of the assignment
- Quality vs. Quantity
- Organization




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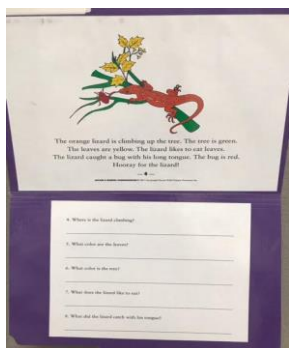
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### Case Study: Middle School Reading Comprehension




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### Case Study: Middle School Reading Comprehension

Example:

#### Moderate Assistance

- Use visuals prompts
- Organize the assignment
- Reduce amount of questions
- Know your goal of the assignment




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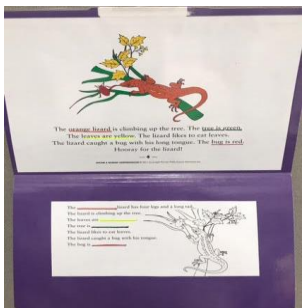
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### Case Study: Middle School Reading Comprehension




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### Case Study: Middle School Reading Comprehension

Example:

#### Maximum Assistance

- Provide visuals (does not always have to be pictures)
- Multiple choice
- Reduce amount of questions
- Organize the assignment




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### Case Study: Middle School Reading Comprehension




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Case Study: Middle School Writing Paragraph Writing

Example:

Minimal Assistance

- Know the goal of the assignment
- Provide topic and visual prompts
- Be flexible on topic prompts if possible
- What can the final product look like?




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Case Study: Middle School Writing Paragraph Writing




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Case Study: Middle School Writing Paragraph Writing

Example:

Moderate Assistance

- Provide topic or visual prompts
- Provide sentence starters
- Organize assignment
- What will the Final product look like?




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Case Study: Middle School Writing Paragraph Writing




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Case Study: Middle School Writing Paragraph Writing

Example:

Maximum Assistance

- Organize assignment
- Know the goal of your assignment
- Pre-made sentences
- Utilize visuals: words, sentences and/or pictures




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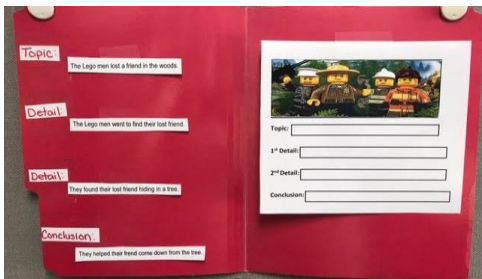
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Case Study: Middle School Writing Paragraph Writing




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Case Study: High School Reading  
Functional Word Wall

Safety

- What signs will your students see?
- Independence
- Outside of the school environment

Grocery Shopping

- Organization, Categories
- Independence
- Life skills




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Case Study: High School Reading  
Functional Word Wall




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Case Study: High School Math  
Menu Math

Example:

Minimal Assistance

- Functional math skills
- How to read a menu
- Calculating taxes
- Making choices
- Adding items together with the use of visual or calculator




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Case Study: High School Math  
Menu Math




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Case Study: High School Math  
Menu Math




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Case Study: High School Math  
Menu Math

Example:

Moderate Assistance

- Know the goal of the assignment
- Be flexible as to how the assignment is completed
- Adding items together through the use of visuals or a calculator




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Case Study: High School Math  
Menu Math




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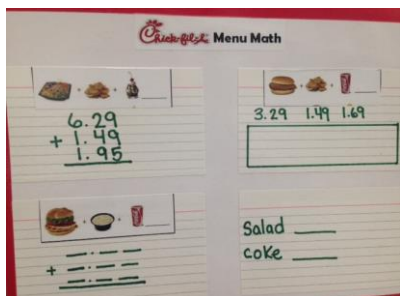
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Case Study: High School Math  
Menu Math




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Case Study: High School Math  
Menu Math

Example:

Maximum Assistance

- Present one section at a time
- Simply focus on money amount
- Ordering from a menu: verbally or through the use of pictures




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Case Study: High School Math  
Menu Math




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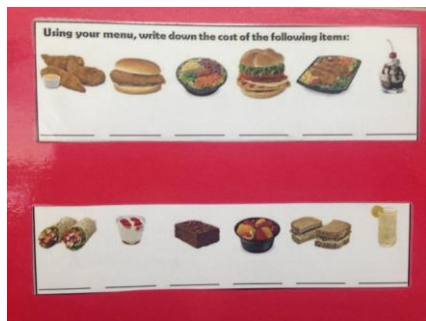
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Case Study: High School Math  
Menu Math




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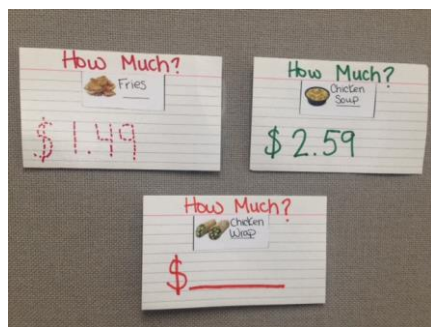
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Case Study: High School Math  
Menu Math




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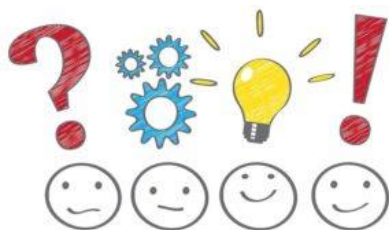
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## Questions



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## Resources

- **Chick-Fil-A Menu Math**  
<http://empoweredbythem.blogspot.com/2012/10/chickfila-menu.html>
- **Sight Word Books**  
<http://www.hubbardscupboard.org/intro-to-sight-words>
- **Elementary Journal Writing**  
<https://www.teacherspayteachers.com/Product/January-NO-PREP-Journal-Prompts-for-Beginning-Writers-1584678>
- **Interactive Books**  
<https://www.readinga-z.com/>
- **Money Lego Math**  
<http://www.1plus1plusequals1.com/KindergartenPrintables.html>



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## References

- Horstmeier, D (2004). Teaching math to people with down syndrome and other hands on activities. Bethesda, MD: Woodbine House.
- Porter, J. (2011). Autism and reading comprehension. Arlington, TX: Future Horizons.



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## Contact Information

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