

# Understanding Autism

## Professional Development Curriculum:

*Strategies for Classroom Success and  
Effective Use of Teacher Supports*



# What is ASD?

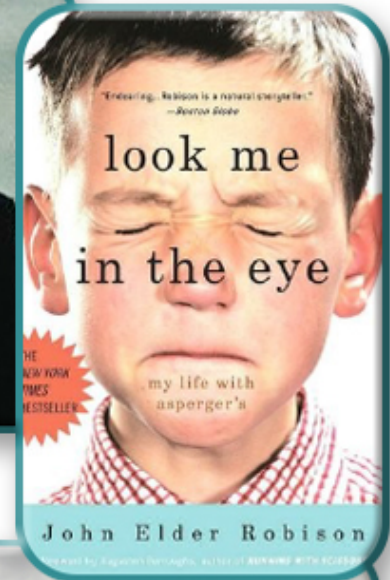
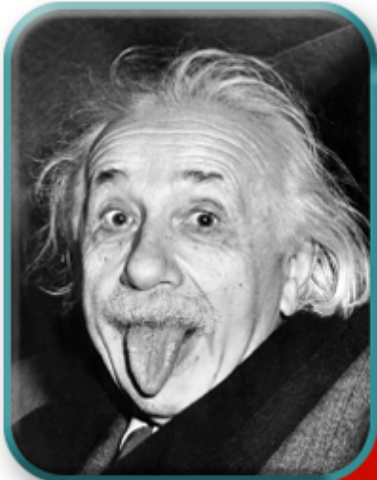
- ▶ Autism Spectrum Disorder (ASD) is a developmental disorder that impacts the way individuals **communicate** and **interpret** their environment, often resulting in challenges with **social interactions** and **processing information**.



# DSM-5 ASD Criteria

- ▶ Persistent deficits in social communication and social interaction across contexts
- ▶ Restricted, repetitive patterns of behavior, interests, or activities
  - Stereotyped or repetitive motor movements,
  - Insistence on sameness, inflexible adherence to routines, or ritualized patterns or verbal nonverbal behavior
  - Highly restricted, fixated interests that are abnormal in intensity or focus
  - Hyper- or hypo-reactivity to sensory input or unusual interests
- ▶ Symptoms must be present in early childhood
- ▶ Symptoms cause clinically significant impairment in social, occupational, or other important areas of current functioning





# Strategies for Classroom Success



# Secondary school environments can be challenging for students with ASD

## ▶ Transitions

- Require multiple changes
- Predictable and yet still unpredictable

## ▶ Sights and sounds of hallways

- Noise and commotion can be overwhelming
- After navigating the hallways, students are often stressed and unsettled

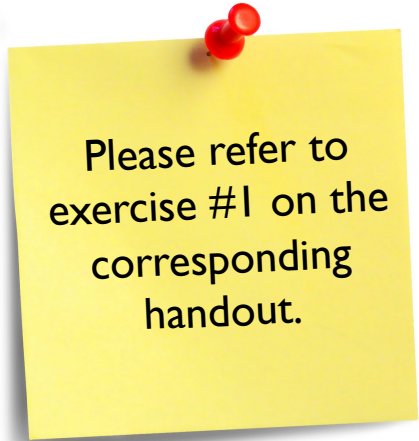
## ▶ Students with ASD often have difficulty:

- Picking out important information from the environment
- Understanding what they are supposed to do



# Think About This...

- ▶ What are the aspects of your school that may make it a challenging environment for students with ASD?
- ▶ Write down 5 examples
- ▶ Share with a colleague



Please refer to  
exercise #1 on the  
corresponding  
handout.



How can you support students with ASD in your classroom and school?





# Objectives

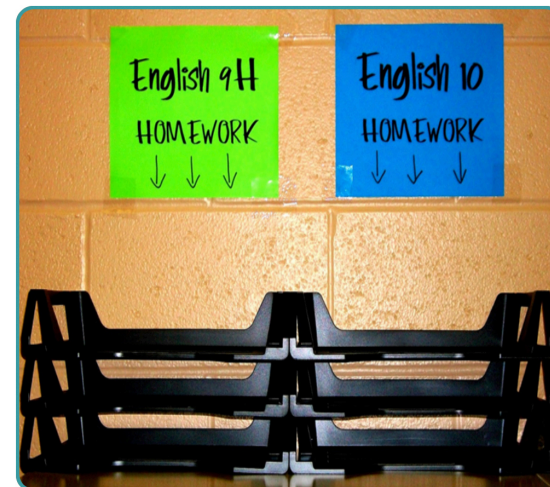
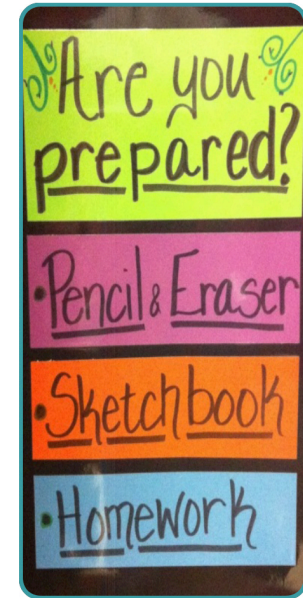
**By the end of the session, you will be able to:**

- ▶ Identify and use elements of classroom structure that will assist most students, including those with and without autism
- ▶ Find ways to incorporate 5 key student supports into your classroom
- ▶ Identify supports available to help you brainstorm, solve problems, and plan

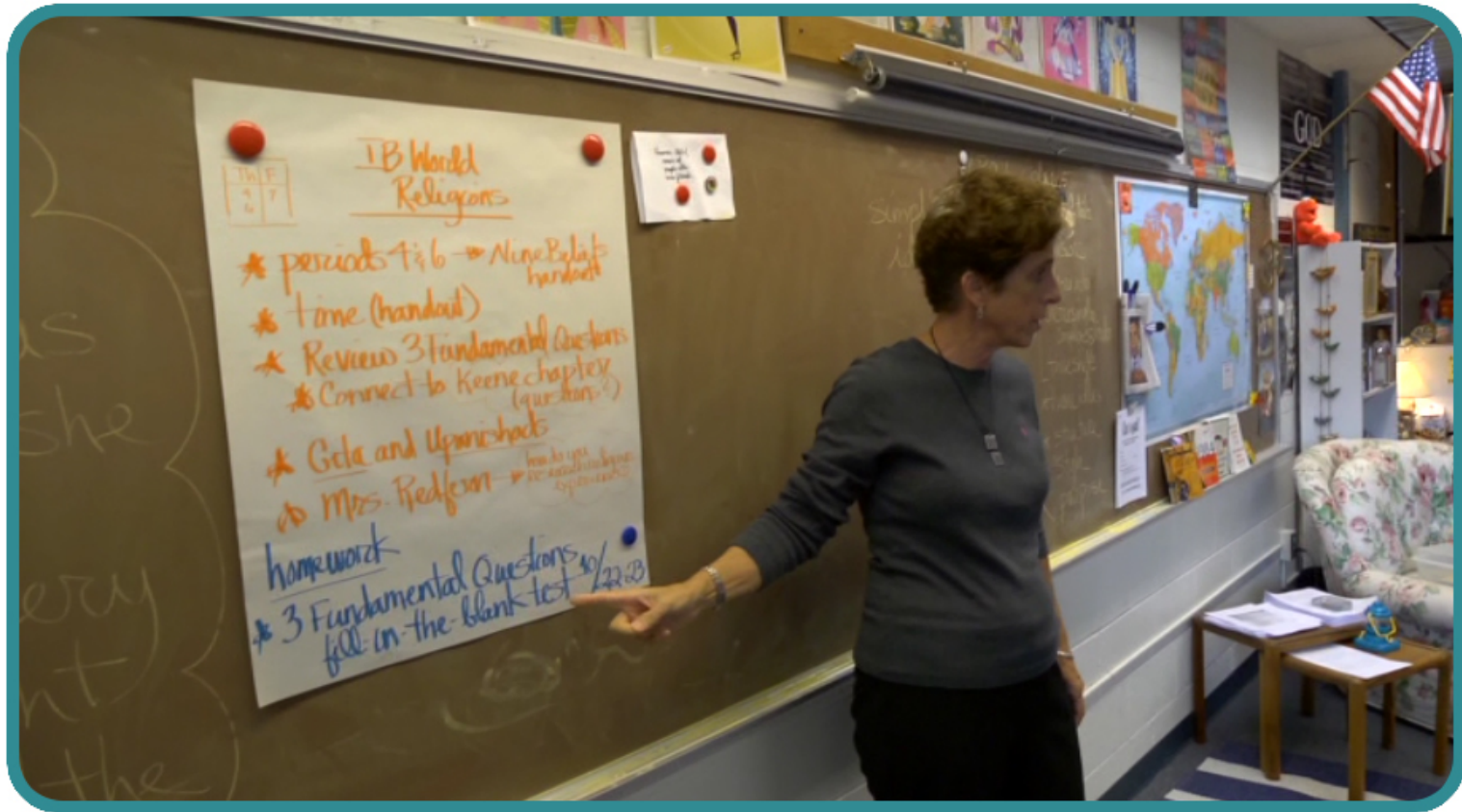


# Structure is Key!

- ▶ Make information accessible
  - Spell out where homework goes and where to get materials for the day
- ▶ Provide structure
  - Make task expectations clear
- ▶ Create a predictable classroom



# Classroom Supports



[CLICK HERE](#) to View Video Clip – Segment Two: Integrating Supports in the Classroom



# Hypersensitivities



[CLICK HERE](#) to View Video Clip – Segment Two: Integrating Supports in the Classroom



# Consider potential auditory and visual challenges

## ▶ Example challenges:

- Sitting too close to:
  - Windows
  - Hallway door
  - Specific students
- Radio playing
- Messages flickering on TV screen
- Fluorescent lights



Computer Station



First Aid Station



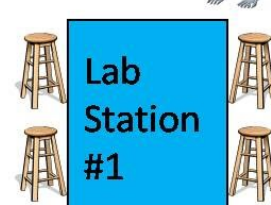
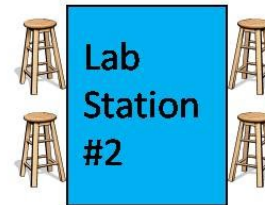
Equipment Station



Mrs. Elliott

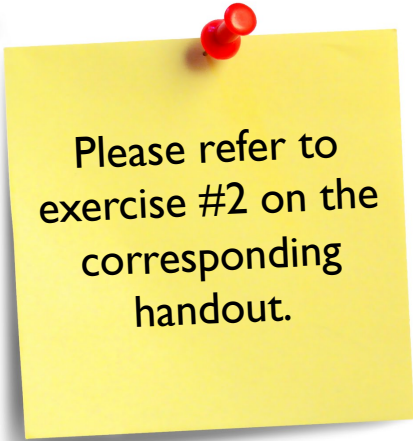
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Mr. Bones



# Try This...

- ▶ Describe two supports that you noticed in the classroom you just observed:
  - 1.
  - 2.
  
- ▶ Identify 2-3 elements of a well-structured classroom you have in place or would like to add:
  - 1.
  - 2.
  - 3.



Please refer to exercise #2 on the corresponding handout.



# 5 Key Support Strategies

- ▶ Priming
- ▶ Academic Modifications
- ▶ Visual Supports
- ▶ Reinforcement
- ▶ Home Base





# Priming

- ▶ What is priming?
  - Priming is exposure to academic course material or tasks before instruction
- ▶ Why should you use this strategy?
  - It gives students the chance to become familiar with the material or skills, and increases the likelihood they will learn and use key concepts
- ▶ Priming is most effective when it is built into the student's daily routine



# What does priming look like?



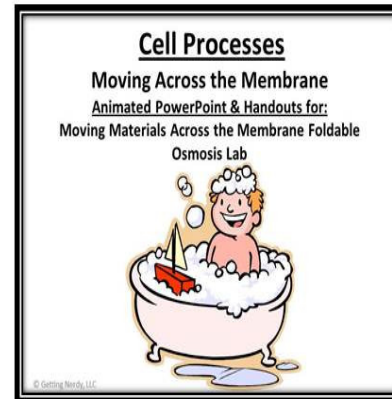
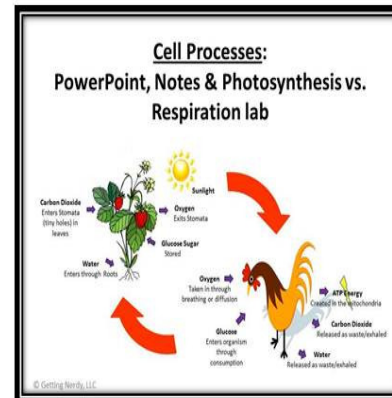
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# What does priming look like?

Student Questions [Hide names](#) | [Show names](#)

- What is a healthy storm vs. an unhealthy storm?
- why is the isotherm steeper higher up?
- so is an area of high pressure most commonly associated with warm air? and because in the south)? and if so does that mean most of the the transfer of air between high a



### Cellular Processes: Is There Life on Other Planets?

**Objective:** To determine what gives the habitable planets and exotherms and report back to your class.

**Hypothesis:** What gives us life? What do the habitable planets and exotherms have in common?

In plant cells, a process called **photosynthesis** uses the sun's energy to make food. It starts in the leaves which contain green chloroplasts to absorb sunlight. Carbon dioxide gas enters the leaves through openings called stomata, water enters the plant through the roots, and they both react in the chloroplast using the sun's energy to make glucose (sugar) and oxygen. The oxygen leaves the plant through the stomata in the leaves and the glucose gets stored in the vascular tissue for the plant.

In animal and plant cells, **cellular respiration** converts that glucose (sugar) into energy (ATP) to power the cell and its organelles. Cellular respiration takes place in the powerhouse of plant and animal cells called the mighty mitochondria. Animals breathe in oxygen which reacts with the glucose from the food they eat to make energy (ATP). While ATP is created, water and carbon dioxide are made as waste products. The cell must hang on to the water or release it from the cell and then the body in our sweat or urine. Carbon dioxide is a dangerous gas which our body removes when we exhale.

Without photosynthesis there would be no oxygen in the air or glucose in our food. Without cellular respiration we would have no energy and the plants would have no carbon dioxide for photosynthesis. The processes need each other to survive as it makes sense when you consider the equation for photosynthesis and cellular respiration are opposite or backwards of each other!

### What's Behind Your Number...

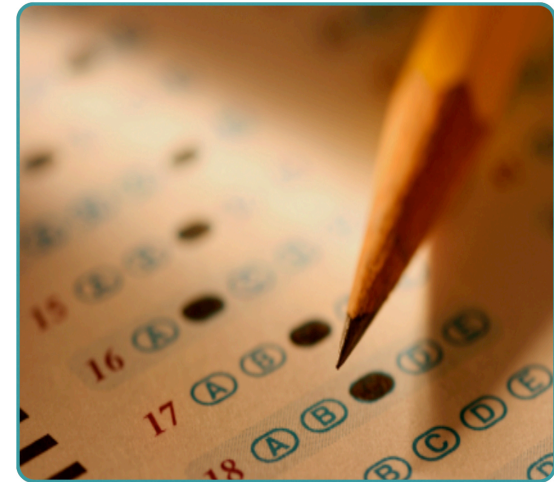
- Fill your paper in half.
- Take each side and fold it in the middle.
- Now take the top and bottom of your paper and fold them inward.
- Open it up. You should have 12 equal sized squares. Fold the "door" into the center, so that your paper looks like a window with closed shutters.
- Get the "shutters" on your fold lines so that you have an oval door. Label each door with a DNA number in the corner following the guide below.

**DOOR # 1: ACTIVE TRANSPORT**  
What is it?  
Movement of molecules across the cell membrane using ENERGY!  
Useful for:  
- Movement of chemicals from low concentration to high concentration against the concentration gradient  
- Ions, sugars and nutrients  
- Molecules that are too large to move through the cell membrane easily  
- Ions, glucose and starch

**DOOR # 2: ENDOCYTOSIS**  
What is it?  
Part of the cell membrane surrounds material in a vesicle and carries them INTO the cell to be released inside.  
Useful for:  
- Molecules that are too large to move through the cell membrane.  
- Engulfing food  
- Receptor ACTIVE TRANSPORT!

# Academic Modifications

- ▶ What are academic modifications?
  - When the content or format of assignments are adapted to meet the student's specific needs
- ▶ Examples:
  - Read directions out loud
  - Extended time on assignments
- ▶ IEP at a glance/cheat sheet can be useful to communicate academic modifications



# Examples of Academic Modifications



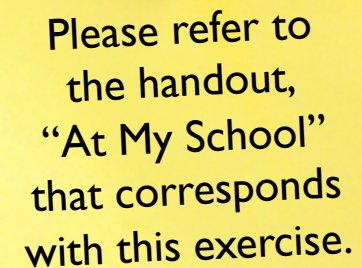
[CLICK HERE](#) to View Video Clip – Segment Two: Integrating Supports in the Classroom



# At My School...



- ▶ How do I know if my student needs academic modifications?
- ▶ Who do I ask?
- ▶ Where are student Individualized Education Programs (IEPs)?
- ▶ Where in an IEP do I find information on academic modifications?



Please refer to the handout, “At My School” that corresponds with this exercise.



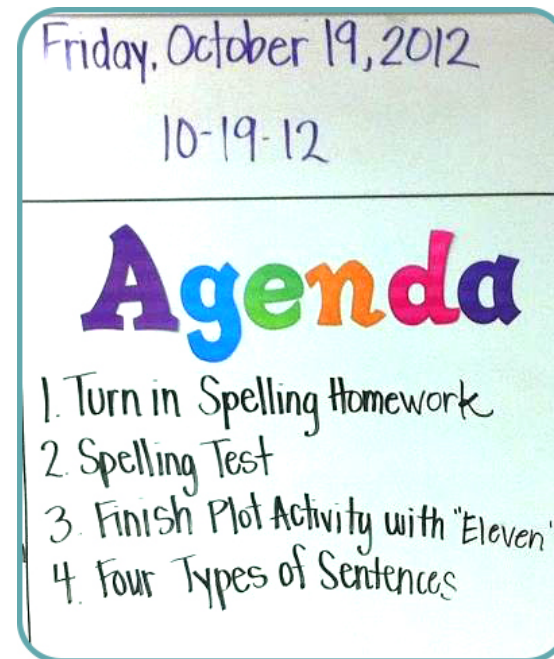
# Visual Supports

## ▶ What are visual supports?

- Visual supports are any tool presented visually that supports an individual as he or she moves through the day.

## ▶ Visual supports might include:

- Pictures
- Written words
- Objects within the environment
- Visual boundaries
- Schedules
- Maps
- Labels
- Organization systems
- Timelines
- Scripts



# Visual Supports for All Students

- ▶ Provide study guides that highlight the main points of the lesson
- ▶ Highlight key parts of the text

## Story

"Divorced, beheaded, died; divorced, beheaded, survived" is a rhyme that helps people remember the fates of six former queens. Who were these queens, and why do people remember them? For centuries, people have been fascinated with these six women for their mutual husband, the infamous 16th century English King Henry VIII. Henry's six wives are interesting not only because there were so many of them, but also because they testify to the most important aspect of his **regime**: Henry VIII was a ruler who wasn't afraid of change.

Henry's six-wife saga began with Catherine of Aragon, who after years of trying, was unable to bear Henry a son. This failure, as Henry saw it, along with Henry's increasing infatuation with Anne Boleyn, a woman in his court, eventually led Henry to divorce Catherine and marry Anne. Soon, Anne became too grouchy for his taste, and Henry promptly had her **beheaded**. He went through the rest of his wives quickly, divorcing Anne of Cleves because he found her too ugly and recklessly beheading the 16-year-old Katherine Howard.

Henry's offensive habit of discarding wives may seem merely anecdotal, but it actually brought about a major change in England. During Henry's first marriage, England was a Catholic country, and divorce was therefore forbidden. When the Church refused to grant Henry the divorce he wanted, he broke ties with Roman Catholicism and formed the Church of England. Henry declared himself supreme head of this church and granted himself a divorce. This **unprecedented** move made him ruler of both religious and political matters. Henry's bold declaration was the first step in England's transformation from a medieval, Catholic country into a **Protestant** country with a more modern social structure. Provoking this change, which later became known as the English Reformation, was the largest milestone in Henry VIII's career. It was also one of the biggest changes England has ever seen.

Though history probably could have done without a few of Henry's impulsive wife changes, he nonetheless made a significant and lasting change in England. **For that radical step—in addition to his six wives—King Henry VIII will forever be remembered.**

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Highlighted text tells students when to stop reading and begin working on comprehension questions.





# Visual supports can also take the form of:

- ▶ **Self-management tools** that help the student stay focused and understand their behavior
- ▶ **Graphic organizers** that help the student highlight important information
- ▶ **Social scripts** that help the student understand what to say or how to act in particular situations



# Self-Management

I have remembered to include a clear and lively opening.

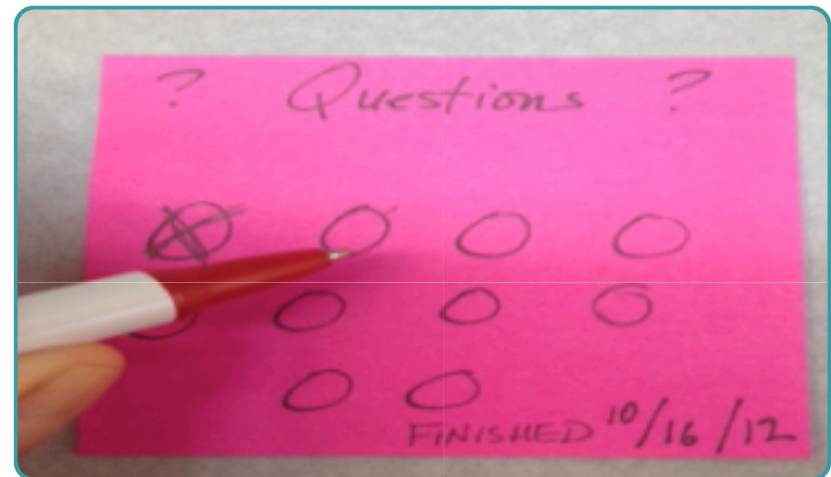
I have included a suitable problem.

I have created a balanced ending to my story.

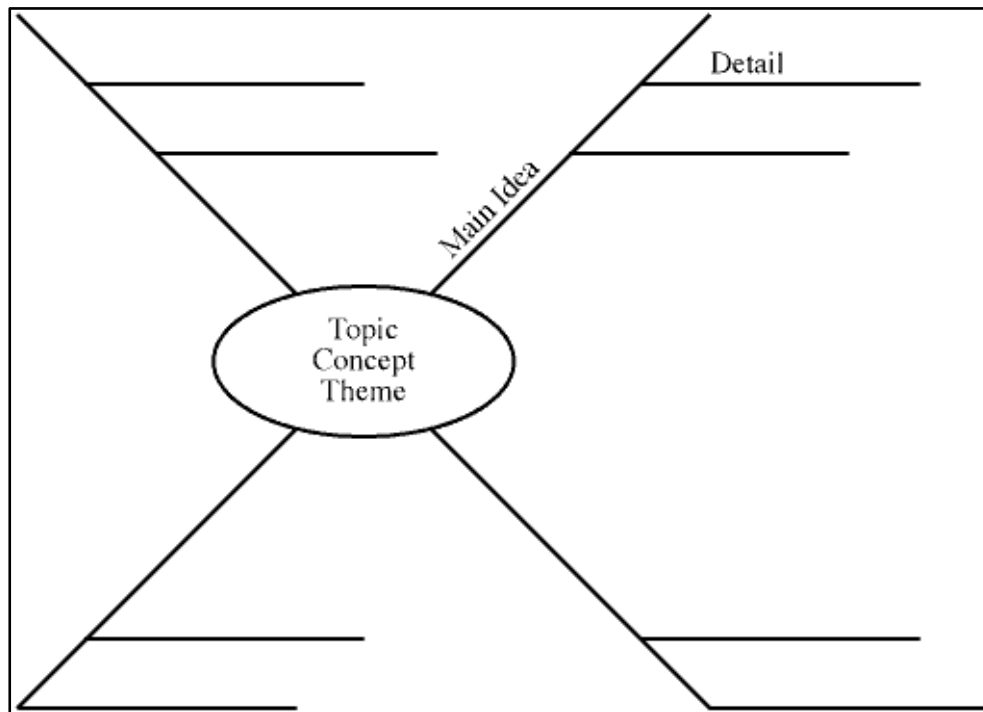
I have used capital letters at the start of my sentences and for people's names.

I remembered to put full stops at the end of my sentences.

I have included what the character would see, hear, smell, feel and taste



# Graphic Organizers



<input type="radio"/>	<b>1. During Class:</b> Take notes here.	
<input type="radio"/>	<b>2. After Class:</b> Edit and summarize here.	
		<b>3. Later:</b> Your ideas, thoughts, questions here.



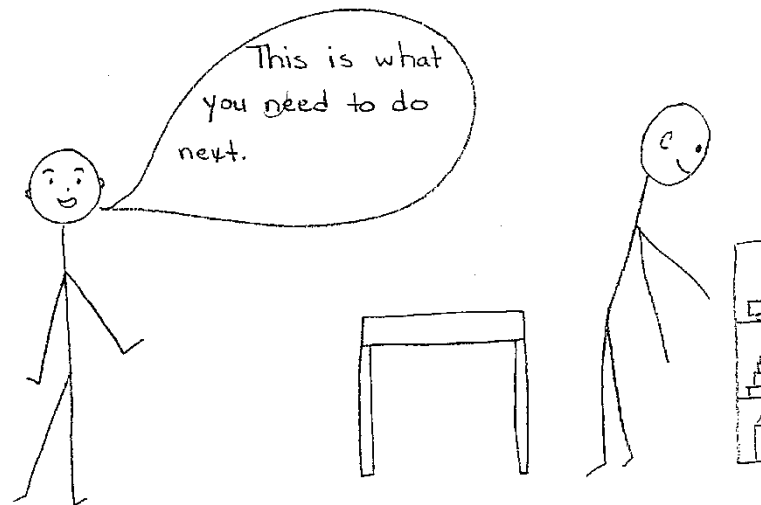
# Visual for Social Script

## Looking While Listening

When someone is talking to me, I try to listen. This is a very nice thing to do.

There are a lot of times that I have to be a good listener.

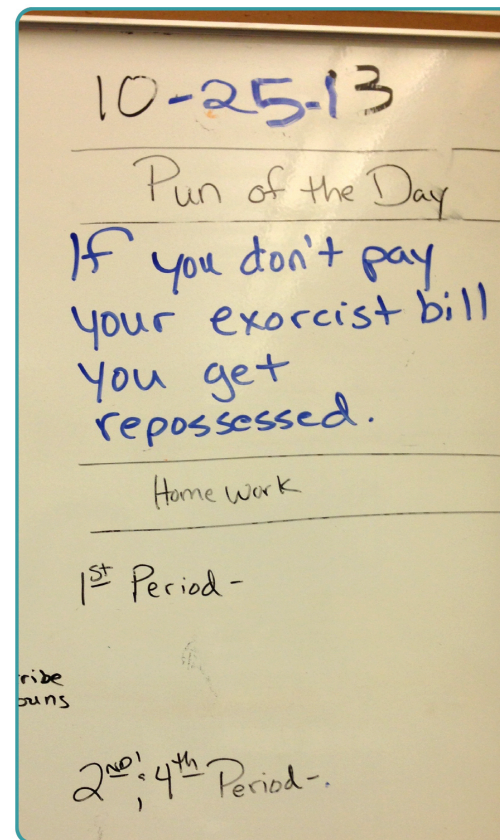
If I look at the ceiling and other things in the room, the other person may not know I am listening.



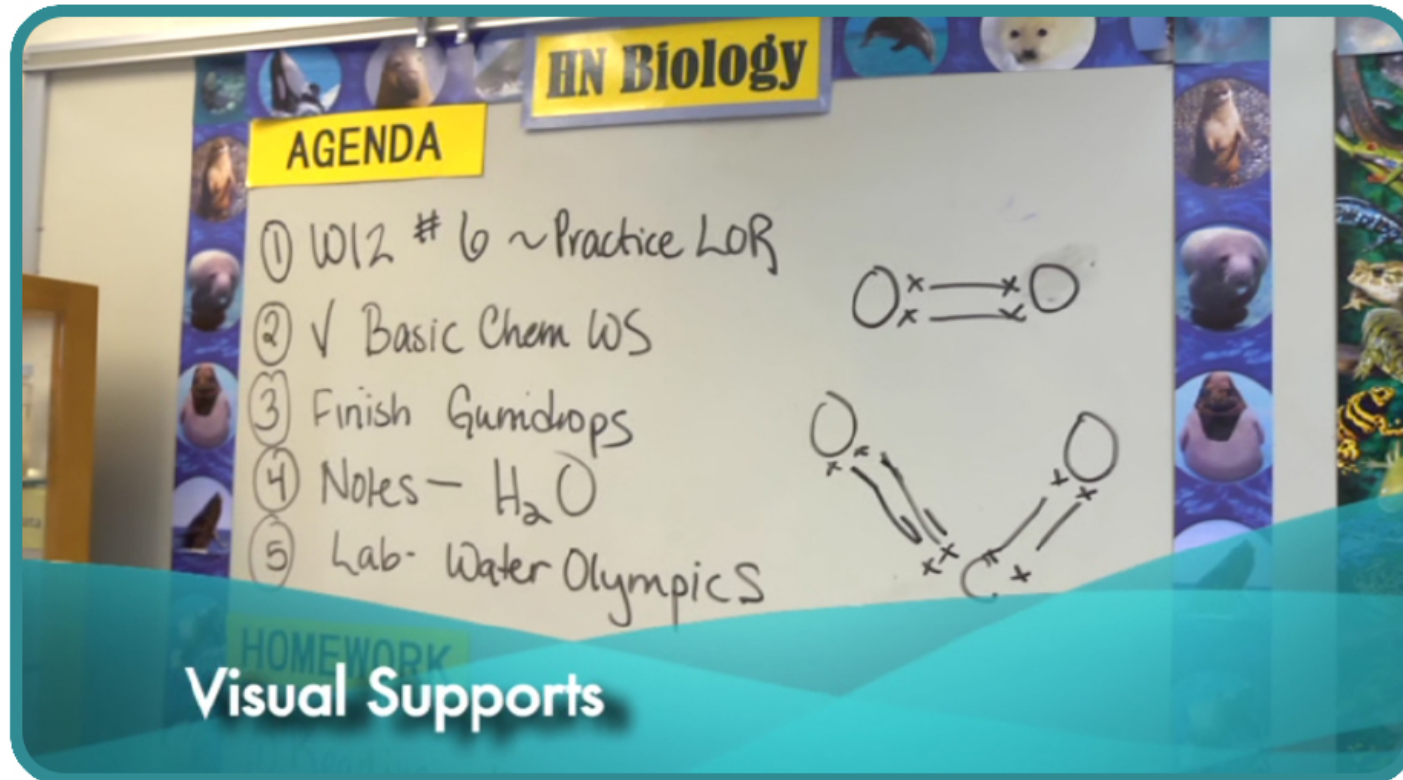
# Visuals help everyone learn!



From The Far Side by Gary Larson



# What do visual supports look like?



[CLICK HERE](#) to View Video Clip – Segment Two: Integrating Supports in the Classroom

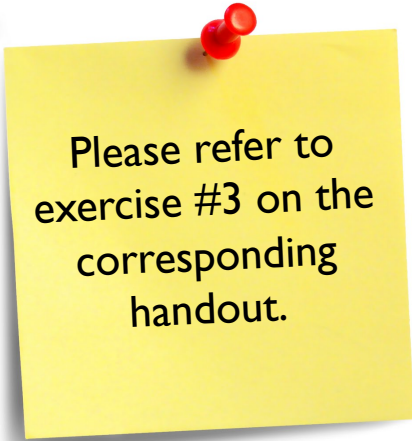


# Choose a Support to Think About



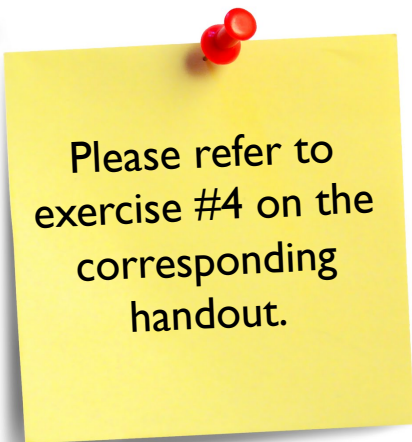
# Think About This...

Choose one of the following exercises (#3 or #4) to complete:



Please refer to exercise #3 on the corresponding handout.

- ▶ What could priming look like for your student?
- ▶ Who could provide this support?
  - A paraprofessional?
  - A parent?
  - A peer?
- ▶ When can you build this into the student's schedule?



Please refer to exercise #4 on the corresponding handout.

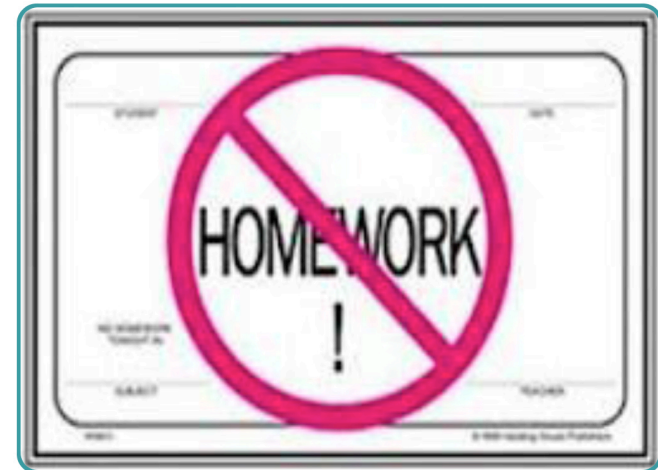
- ▶ What visual supports do you provide to all the students in your class?
- ▶ What other visual supports could you provide that might benefit the whole class?
- ▶ What student-specific visual supports could you provide?





# Reinforcement

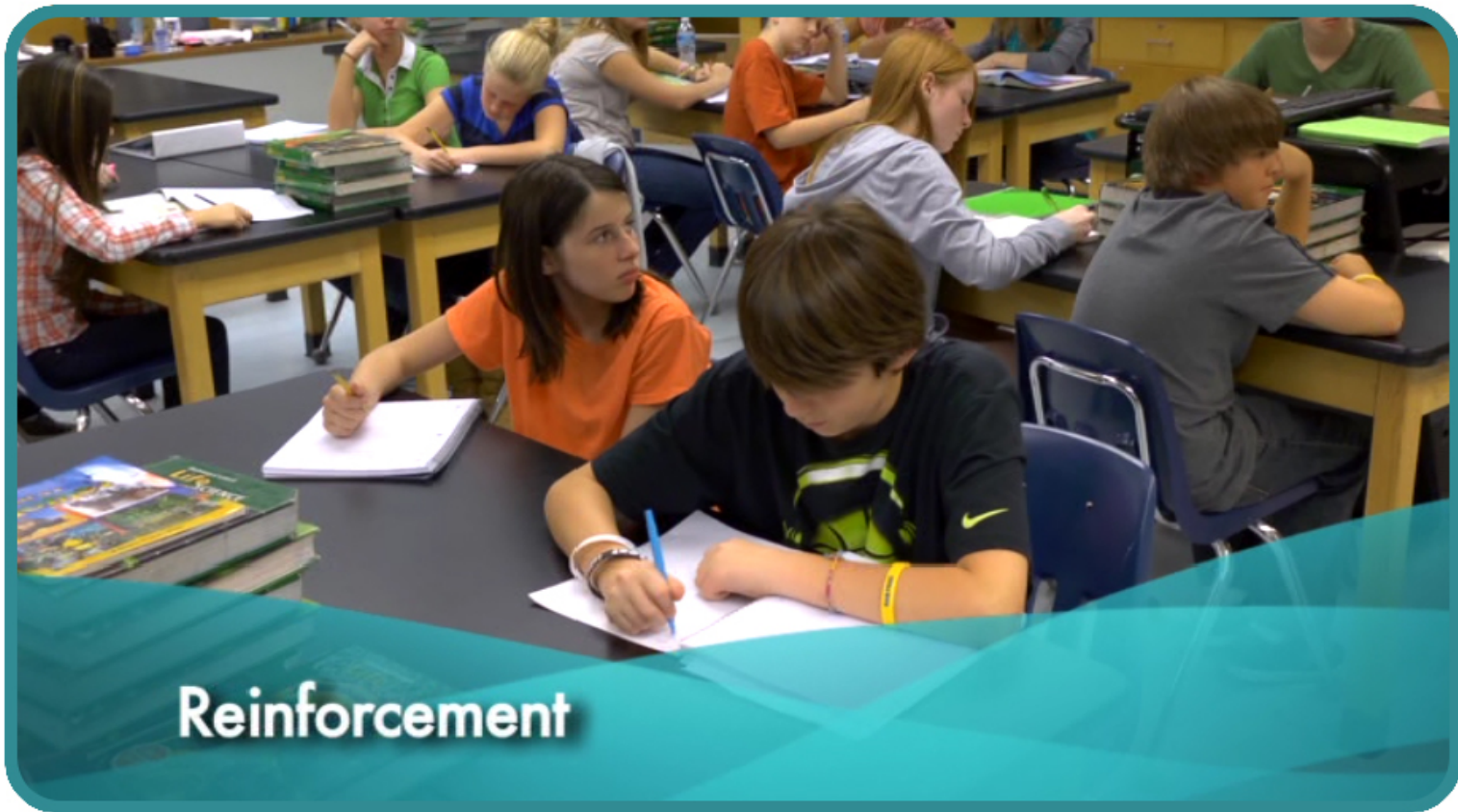
- ▶ What is reinforcement?
  - Reinforcement rewards students for behaving in ways that are productive and support their continued growth
- ▶ Examples of reinforcement:
  - Verbal praise
  - Computer time
  - Homework pass



**Remember:** A teenager with ASD may need to be reinforced for things that others do not need to be reinforced.



# What does reinforcement look like?



[CLICK HERE](#) to View Video Clip – Segment Two: Integrating Supports in the Classroom



# Home Base

## ▶ What is home base?

- Home base is a designated place where students with ASD can go to regain control during times of stress

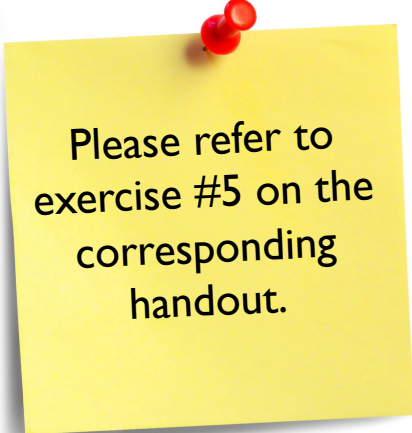


# Choose a Support to Think About



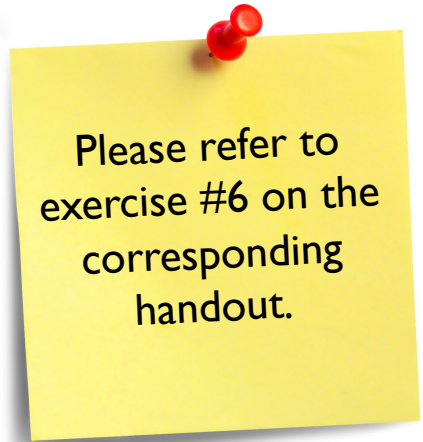
# Think About This...

Choose one of the following exercises (#5 or #6) to complete:



Please refer to exercise #5 on the corresponding handout.

- ▶ Brainstorm ways to provide reinforcement to:
  - Your class
  - Specific students



Please refer to exercise #6 on the corresponding handout.

- ▶ Where would be a good “home base” for your students? Why?



# More Supports

- ▶ These five support strategies can help teachers provide the structure that students with ASD need to learn effectively

- ▶ For other evidence-based practices for students with ASD, visit:

<http://autismpdc.fpg.unc.edu/content/evidence-based-practices>

- ▶ For case studies describing the use of these practices with secondary school students with ASD, visit:

<http://csea.fpg.unc.edu/resources>



# Effective Use of Teacher Supports



# Where can you turn?

- ▶ Three primary supports can enhance your efforts when working with students with ASD:
  - The Individualized Education Program (IEP)
  - Special Education teachers
  - Paraprofessionals
- ▶ If you feel your student needs supports...
  - Identify your school's key contact for beginning process of acquiring additional supports





# Individualized Education Program (IEP)

## Goal Description

Given a topic, Luke will write a well formulated paragraph, with a topic sentence, two or more supporting sentences, and closure statement, with 80% accuracy.

Does the student require assistive technology devices and /or services? No

If yes, describe needs:

(Address after determination of related services.) Is this goal integrated with related service(s)? No

\* If yes, list the related service area(s) of integration:

## Benchmarks or Short Term Objectives (if applicable)

(Required for students participating in the state alternate assessments aligned to alternate achievement standards)

1. Luke will write two topic sentences, with correct capitalization, and correct punctuation, with 85% accuracy.
2. Luke will write a response paragraph to teacher directed questioning assessment in his general education classes, with 85% accuracy.

## Describe how progress toward the annual goal will be measured

Teacher made tests; Report card in Writing Intense Courses (English/Social Studies)



# IEP

- ▶ The IEP is the central document that serves as the student's roadmap to education
- ▶ It lays out student's present skills and skills that teachers should work with the student to improve, including academic and non-academic goals
- ▶ It structures the learning process for students with ASD and other special needs to ensure they are reaching their full potential

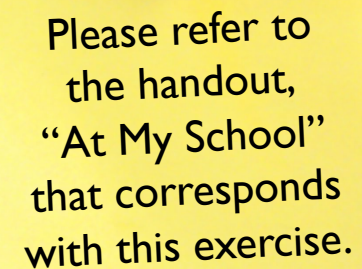


# At My School...



## ▶ Review the following on the “At My School” Worksheet

- Where are the IEPs located?
- Do general education teachers need to access the full IEP, or is there a summative form (“IEP at a glance / cheat sheet) provided?
- Where can general education teachers find strategies that have worked in the past for a particular student?



Please refer to the handout, “At My School” that corresponds with this exercise.



# Special Education Teachers



# Special Education Teachers

- ▶ The special education teacher is the guide to the student's disability and IEP
- ▶ Special education teachers help monitor the IEP to make sure the student is making progress. If the student is not making progress, they can think of alternative ways to help the student make progress.



# Paraprofessionals

- ▶ Paraprofessionals are not often present in general education classrooms
- ▶ When they are:
  - Paraprofessionals help keep students with ASD focused on the classroom teacher and provide reinforcement when they are paying attention
  - Paraprofessionals can make sure the student:
    - Is on task
    - Has materials
    - Has necessary supports
- ▶ Paraprofessionals are NOT responsible for developing curriculum content

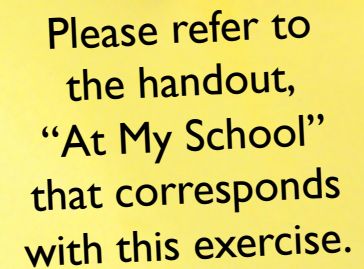


# At My School...



▶ **Review the following on the “At My School” Worksheet:**

- What role do special educators play in helping students with ASD in the general education classroom?
- What information do special educators provide general educators about their students with ASD?
- When are special educators available to meet with general educators to brainstorm ideas?
- What role do paraprofessionals play in general education classrooms?
- What other supports are available to me?



Please refer to the handout, “At My School” that corresponds with this exercise.



# Conclusion

- ▶ The learning environment that secondary teachers create and the specialized supports they provide are integral to the success of students with ASD.





# Resources

- ▶ Center on Secondary Education for Students with ASD - <http://csesa.fpg.unc.edu/>
- ▶ Organization for Autism Research - <http://www.researchautism.org/>
- ▶ National Professional Development Center on ASD - <http://autismpdc.fpg.unc.edu/>
- ▶ *Understanding Autism Manual* - <http://csesa.fpg.unc.edu/sites/csesa.fpg.unc.edu/files/UnderstandingAutismSecondaryTeachersGuide.pdf>



# Credits

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- ▶ Slide 24: Collaborative Strategic Learning, Sharon Vaughn, University of Texas- Austin 2013
- ▶ Slide 26: <http://www.qualityprimaryresources.co.uk/Story-Writing-Checklist> and CSESA Goal Attainment Scaling training PowerPoint
- ▶ Slide 27: <http://www.qualityprimaryresources.co.uk/Story-Writing-Checklist> and <http://www.dailyteachingtools.com/free-graphic-organizers-w.html>
- ▶ Slide 28: <https://sites.google.com/site/mlindquistsresourceguide/homework/comicstripconversations>
- ▶ Slide 29: The Far Side by Gary Larsen and Photo used with permission from CSESA (Mr. Alford's class)
- ▶ Slide 33: [http://www.teacherstorehouse.com/product2.asp?product\\_key=54393](http://www.teacherstorehouse.com/product2.asp?product_key=54393)
- ▶ Slide 35: [http://www.a2schools.org/stone.mediacenter/media\\_center](http://www.a2schools.org/stone.mediacenter/media_center) and <http://justathought.edublogs.org/2010/07/>
- ▶ Slide 37: [http://www.a2schools.org/stone.mediacenter/media\\_center](http://www.a2schools.org/stone.mediacenter/media_center)
- ▶ Slide 39: <http://www.bls.gov/ooh/education-training-and-library/high-school-teachers.htm#tab-2>
- ▶ Slide 41: Used with permission from CSESA
- ▶ Slide 42: <http://school.discoveryeducation.com/clipart/clip/student-file-color.html>
- ▶ Slide 43: Clipart from Microsoft Word
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