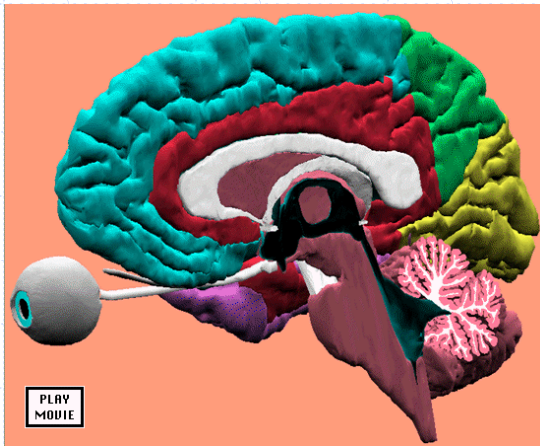


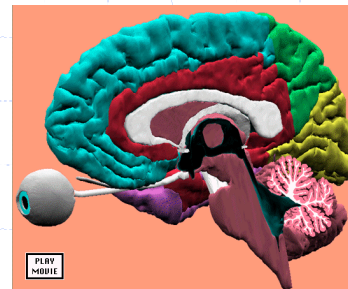
HELPING STUDENTS WITH READING PROBLEMS



READING



- ◆ WHAT' S READING ALL ABOUT?
- ◆ WHAT' S THE BRAIN DOING WHILE YOU READ?
- ◆ DYSLEXIA
- ◆ HELPING WEAK READERS IN THE CLASSROOM



READING

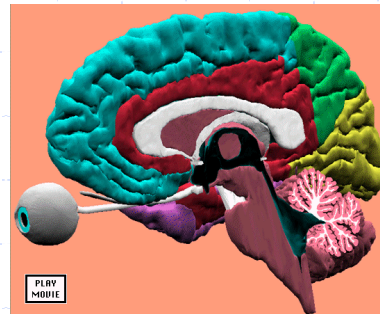


◆ Attention to:

- What you see
 - ◆ Your world
 - ◆ The squiggles on paper

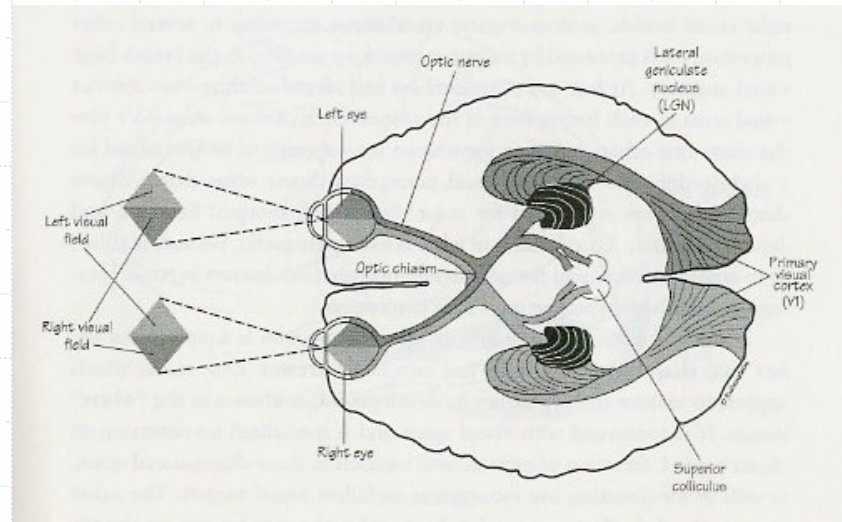
cat

- They require the coordination of different brain areas



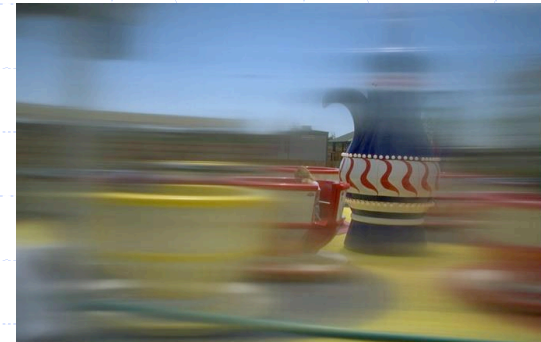
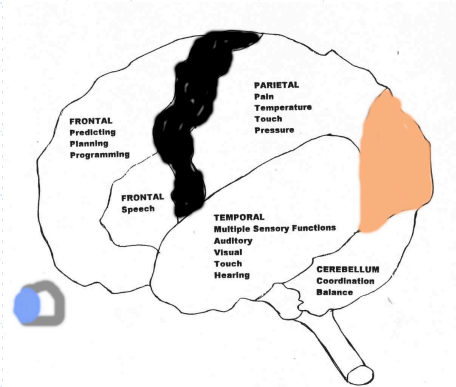
READING

◆ Eyes must focus - together



Reading

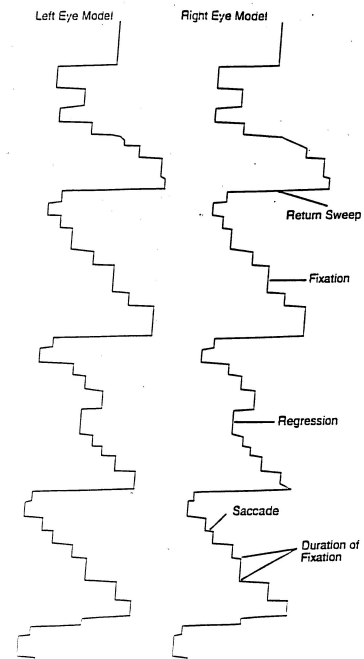
- Eyes must perceive shape and size of symbols **a B c d**
- Eyes must “track” motion



Reading

◆ Coordinated eye movements

Schematic Representation of Eye Movement Graph



Reading

◆ Uncoordinated eye movements

"Come on," said Betty. "We have a dictionary on the shelf."

When I have a headache, I don't know what to do."

"Are you going to do something about it?" asked Susan. "No, I'm not."

"It's easy. We can get a headache cure."

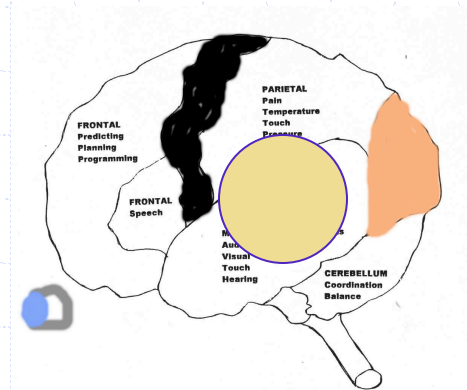
"That's a good idea," said Susan.

READING

- ◆ Visual brain must notice/perceive symbols

frog

- ◆ Visual experiences must be stored
- ◆ Storage must be accessed



READING

◆ Attention to What You Hear

■ Environment and

- ◆ The People in it



■ The individual sounds of the human voice

- ◆ Pitch
- ◆ Volume
- ◆ Tone

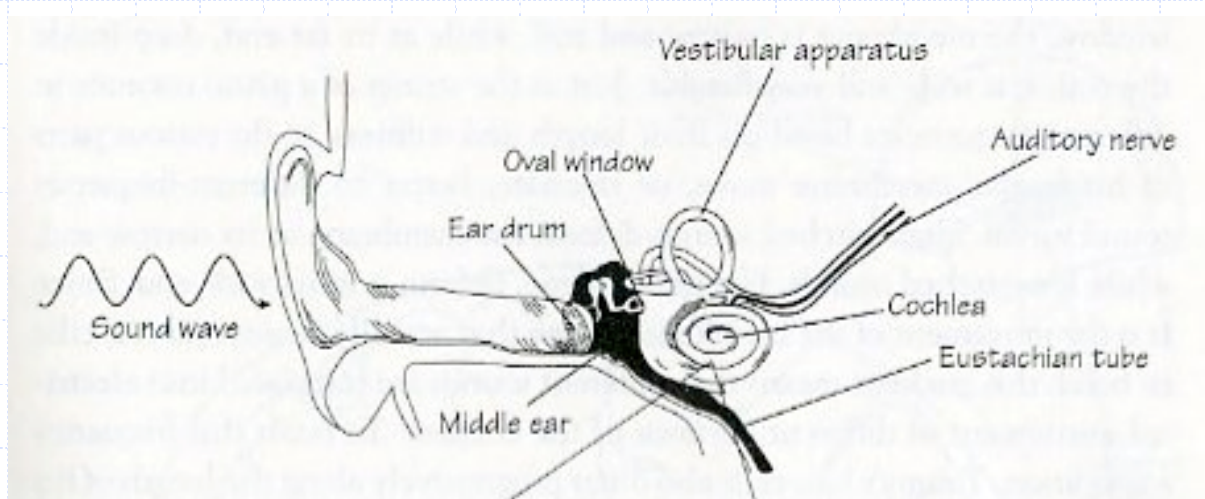
Mary little lamb

had a

Mary had a little lamb

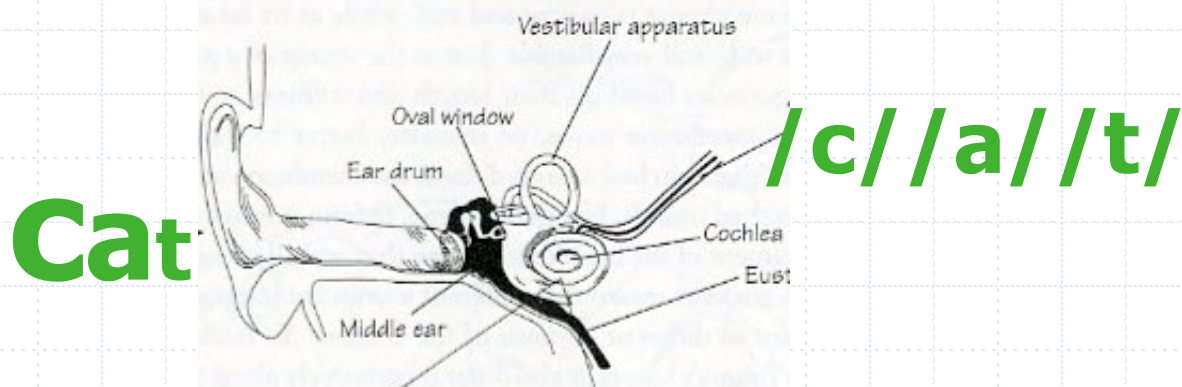
READING

- ◆ Ears need a clear/clean hearing path
- ◆ Ears must amplify sounds



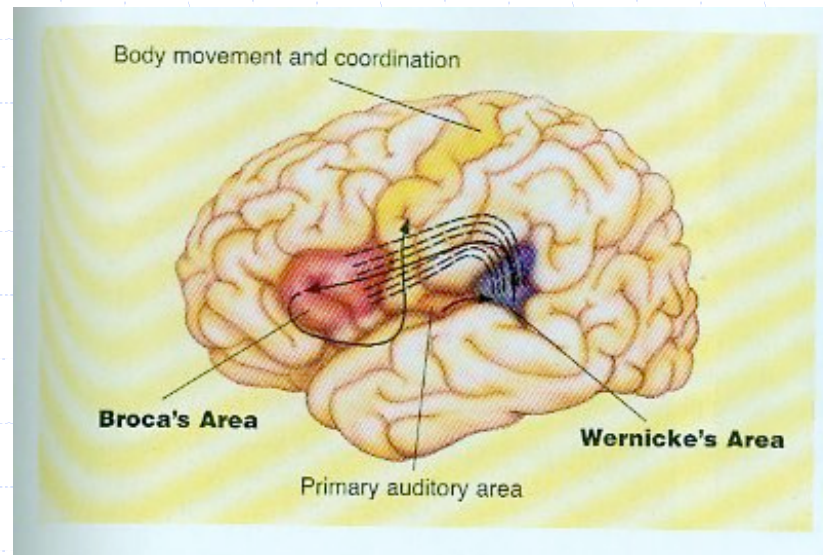
READING

- ◆ Auditory system must notice/perceive different sounds **/p/ /b/**
- ◆ Phonemic awareness (noticing the individual sounds in words) must occur



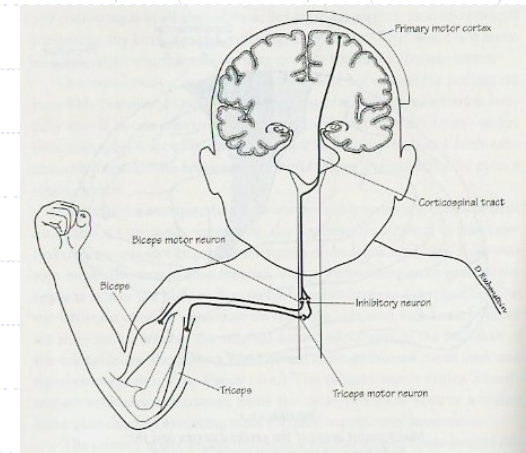
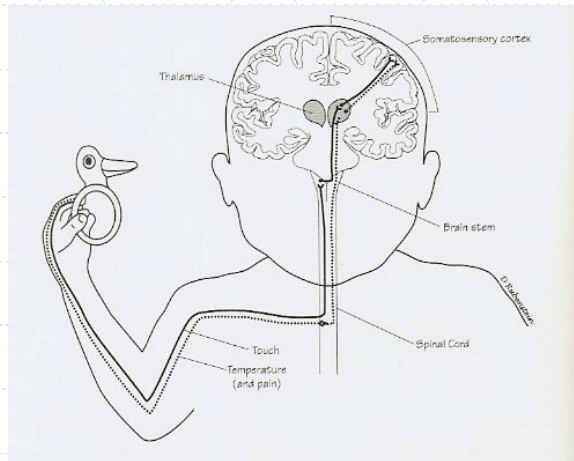
READING

- ◆ Sounds and experiences must be stored
- ◆ Storage must be accessed



Reading

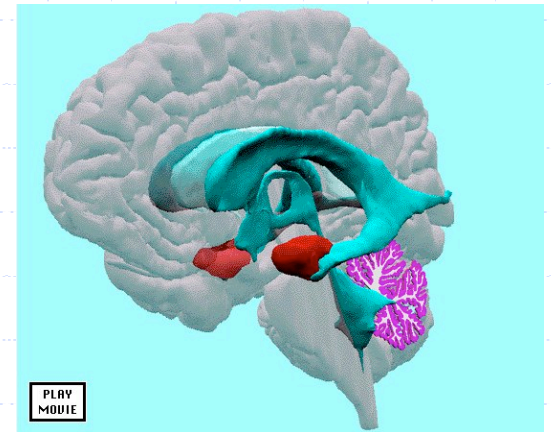
◆ Attention to what is touched and acted upon (sensorimotor)



READING

◆ READING NEEDS

- A strong memory system
 - ◆ Storage
 - Sounds
 - Symbols
 - Words
 - Meanings
 - Experiences
 - ◆ Retrieval of the same



READING

- ◆ Reading requires the two sides of the brain to work together



READING

◆ READING NEEDS

- Ability to combine visual and auditory memories
 - ◆ Blend sounds and symbols f-r-o-g
 - ◆ Hold new blended sounds in memory
 - ◆ Connect to create a whole word
 - ◆ Connect to world experiences
- Ability to hold new symbolic connections in memory frog



READING

◆ Timing is Essential

- Visual timing is “off”
 - ◆ too slow/high contrast
 - ◆ too fast/low contrast
 - ◆ Rapid sequencing is decreased
- Speech sounds timing is too slow or too fast

READING

◆ Problems if **timing** is “off”

- Difficulty discriminating between different stimuli
- Difficulty generating active movements that require rapid succession
- Processing deficits affecting tone/speech signals, balance/sensory-motor signals
- Memory can be impeded

READING

◆ READING NEEDS

- Ability to apply meaning to the combined words and experiences

Reading is fun

- Ability to recall the full impressions gained through the reading process
 - ◆ Words
 - ◆ Word meaning
 - ◆ Understanding of content



READING

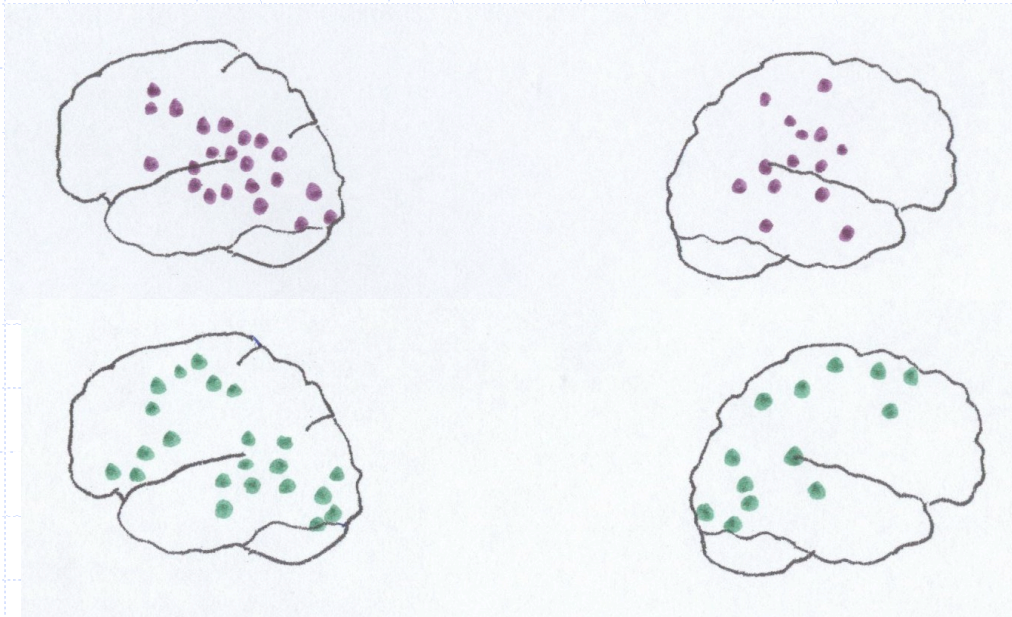
◆ Reading Needs

- To be applied to everyday life memories
- To enhance abstract thinking

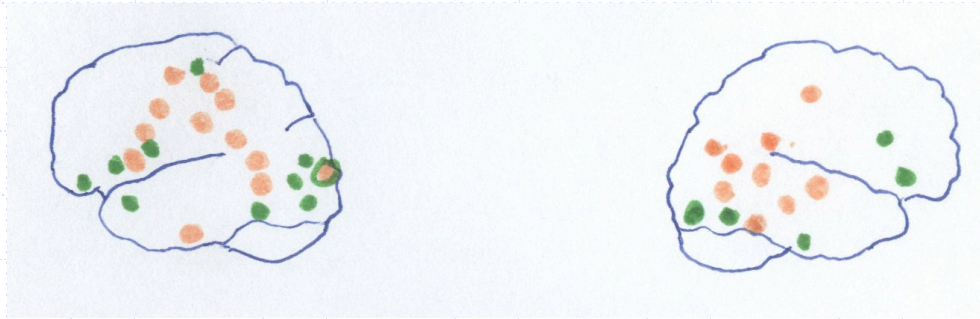


THE READING BRAIN

- ◆ Different brain areas are involved in silent and oral reading



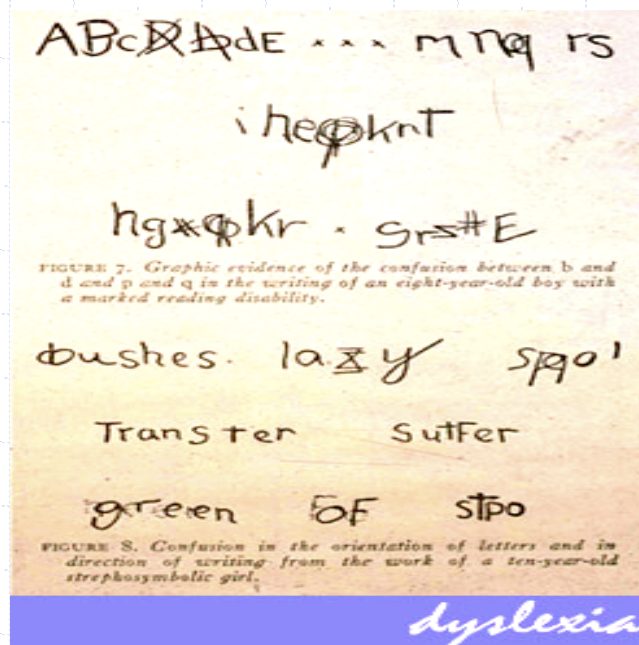
THE DYSLEXIC BRAIN



- ◆ Brains of dyslexics are formed differently than non-dyslexics

DYSLEXIA

- ◆ Some people have trouble noticing and then “recording” the symbols they see (dyseidetic)



DYSLEXIA

- ◆ Some people have trouble:
 - Telling one sound from another
 - Storing sounds in memory (dysphonetic)



DYSLEXIA

- ◆ Some can record sounds AND symbols
- ◆ Can't put them into whole words (memory or mnemonic)



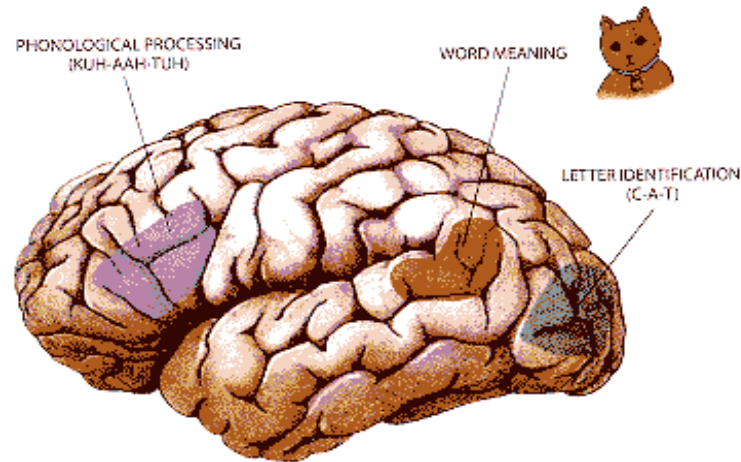
DYSLEXIA

- ◆ Some people can record symbols, sounds and combine them
- ◆ Cannot bring the pieces together to understand what they have read (memory and synthesizing)



DYSLEXIA

- ◆ Some people have trouble:
 - Noticing sounds AND Symbols
 - AND recording them in memory (combined)



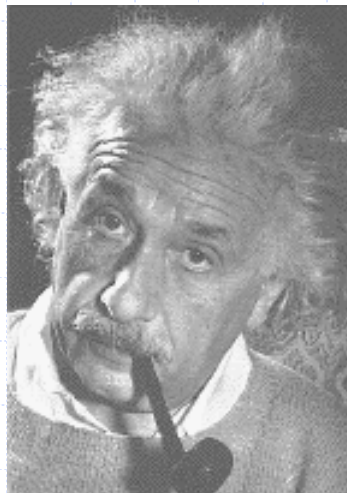
DYSLEXIA

- ◆ For dyslexics, reading is
 - ◆ inaccurate,
 - ◆ slow
 - ◆ laborious



DYSLEXIA

- ◆ They all need deep, repetitive sound/symbol connections and the **GIFT OF TIME**



DYSLEXIA

- ◆ Reading ability does **not** indicate **intelligence,**



- ◆ But **can** lower tested **IQ scores**

DYSLEXIA

- ◆ A student can be **GIFTED** and have **Dyslexia**



DYSLEXIA IN THE CLASSROOM

◆ RECALL

- Students with dyslexia are **s l o w** ,
l a b o r i o u s readers
- Students with dyslexia **often test poorly**
because all tests can be reading tests

DYSLEXIA IN THE CLASSROOM

◆ Students with dyslexia need:

- **THE GIFT OF TIME**

- ◆ Extra time for tests
- ◆ Shortened assignments
- ◆ Assisted reading
- ◆ Study guides for test preparation
- Assisted writing
- Spelling treated as a separate subject

DYSLEXIA IN THE CLASSROOM

- ◆ Students with **visual** dyslexia need:
 - A guide card while reading
 - Two guide cards while taking tests that have an answer sheet
 - Minimized copying from board and books
 - Graph paper or vertical lines when doing math
 - No speeded math fact tests
 - Use of a calculator

DYSLEXIA IN THE CLASSROOM

- ◆ Students with **auditory** dyslexia need:
 - Words slowed down
 - ◆ Directions
 - ◆ Explanations
 - Much repetition of verbal input
 - Warning when they will be called on
 - Spelling treated as a separate subject

DYSLEXIA IN THE CLASSROOM

- ◆ Students with **memory-based** dyslexia need:
 - Repetition
 - Clarification
 - Assignment structure assistance
 - Math fact learning assistance plus calculator
 - Math problem “cheat sheets”
 - Memory devices (Memory Power for Exams, etc.) often using both sides of the brain

DYSLEXIA IN THE CLASSROOM

- ◆ Students with dyslexia need to be encouraged to use good posture
 - Feet flat on the floor or resting on a stool
 - Straighten back
 - Straighten head
 - Head elbow distance from work
 - Pencil held where both eyes can see at the same time

DYSLEXIA IN THE CLASSROOM

- ◆ Students with dyslexia often need:
 - An environment free of pattern glare
 - ◆ Reduce the area of the test that is visible
 - ◆ Reduce contrast between lines
 - ◆ Reduce light levels or use properly prescribed tinted lenses
 - ◆ Change the size of text

DYSLEXIA IN THE CLASSROOM

- ◆ Students with dyslexia need:
 - Adults who are patient
 - Supportive adults who understand
 - Plans that breed success
 - Supportive classmates



DYSLEXIA IN THE CLASSROOM

◆ Students with dyslexia need

*To be taught to read
while
they continue to learn*

