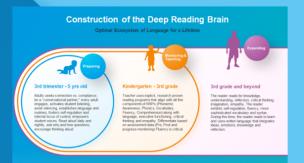


Learning to read changes the brain by repurposing primitive auditory, visual, and oral circuits to construct a reading brain and make it possible for children to learn through reading.

Proficient reading changes the brain through interactions with character relationships and interactions as areas related to empathy, personal reflection, critical thinking, imagination and language are activated.



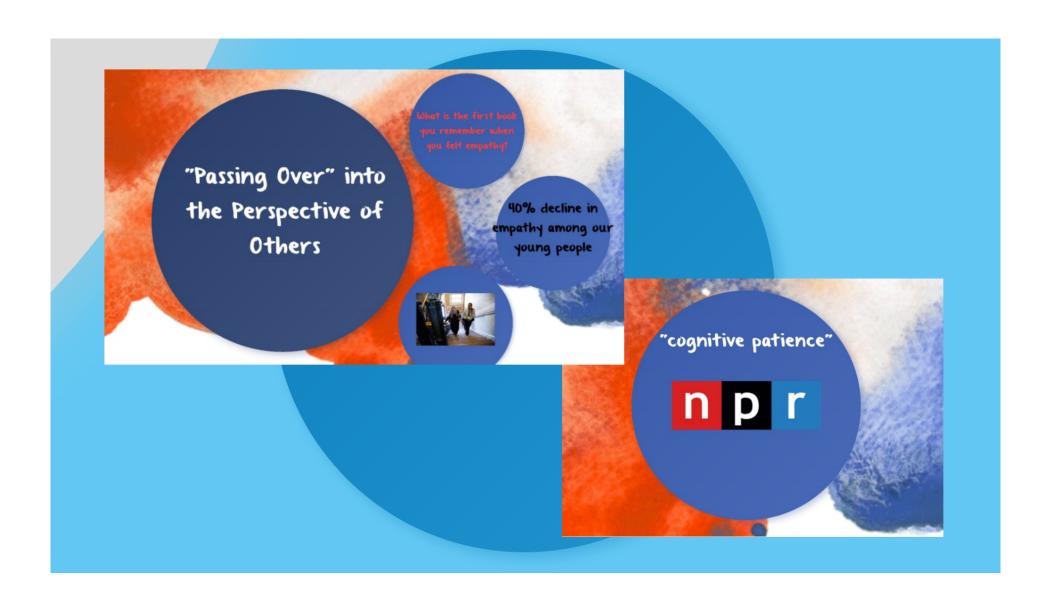
Construction
of the
Reading Brain
in a Digital
Culture

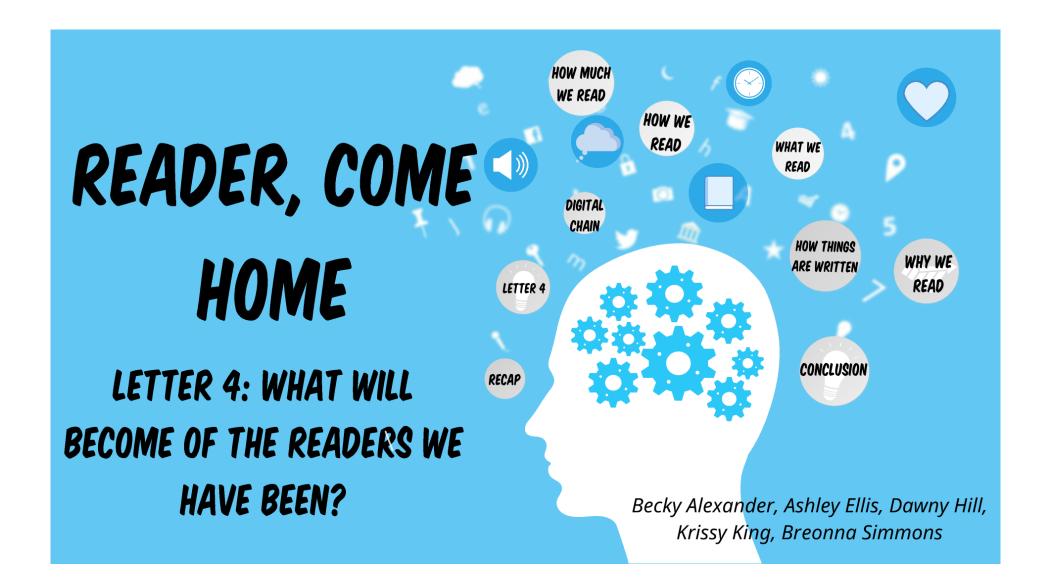
 Dr. Wolf asks..."Will immersion in digital experiences from social media to games, impede the formation of slower cognitive processes such as critical thinking, personal reflection, imagination, and empathy? Will distractions of children's attention and immediate access to information create less incentive for young readers to build knowledge?"

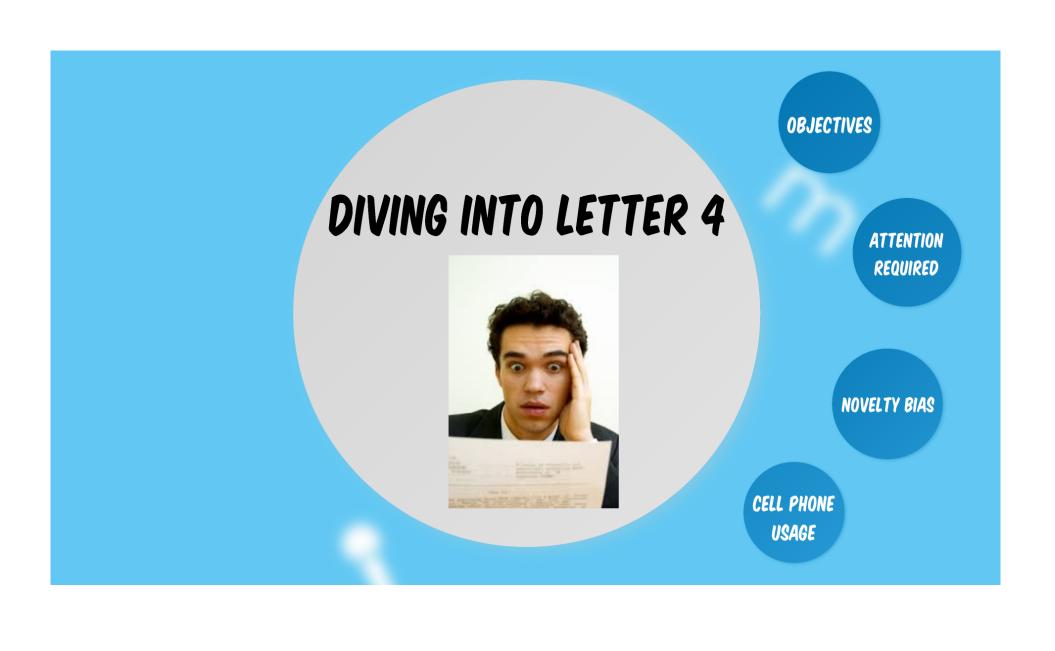
#### Takeaways

- Our brains are not wired to read. There is no ideal reading circuit.
- Oral language is a basic human function, reading is not.
- "Plasticity within limits" means we are using old parts of the brain for new purposes. The brain is able to go "beyond" its original, biologically-endowed functions and develop totally unknown capacities. Neuronal groups that are to be repurposed share similar functions with the new one.
- We are talking about a process that takes 400ms to complete

(a blink takes 300ms)







#### **OBJECTIVES:**

1. BECOME MORE COGNIZANT OF OURSELVES
AS READERS

2. MAKE INFORMED DECISIONS ABOUT THE READERS WE ARE CHOOSING TO BECOME





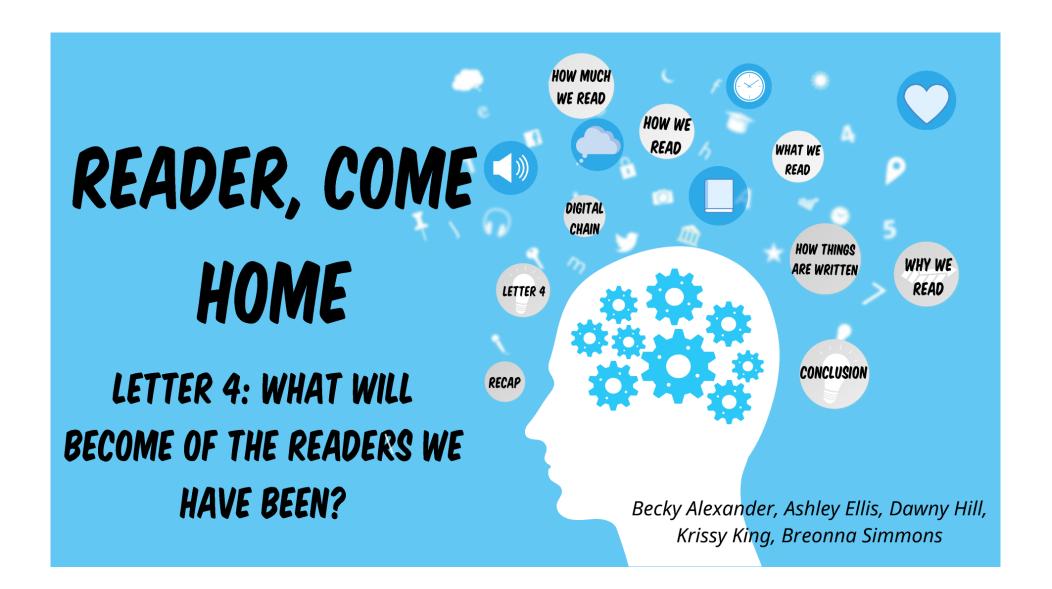
HYPERATTENTION/CONTINUOUS PARTIAL ATTENTION/ENVIRONMENTALLY INDUCED ATTENTIONAL "DEFICITS"/NOVELTY BIAS



NOVELTY BIAS
VIDEO CLIP



AVERAGE NUMBER OF TIMES A
PERSON CHECKS THEIR CELL PHONE
IS 150 - 190 TIMES A DAY.

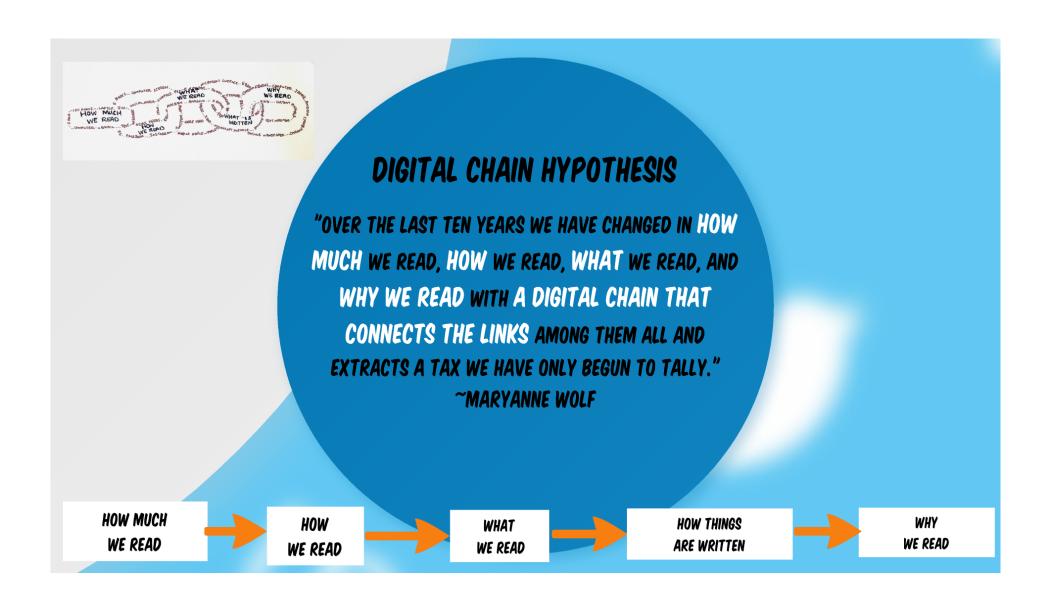


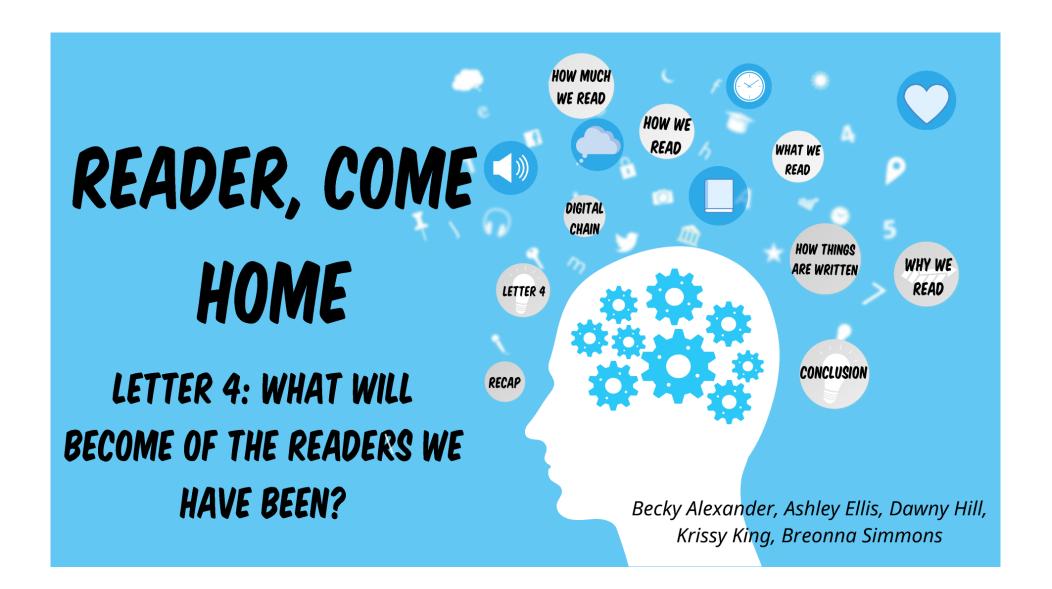


Thus, to select some examples of greatness, we have no idea whether Johann Sebastian Back or Wolfgang Amadeus Mozart actually lived in a cheerful or a despondent manner. Mozart moves us with the peculiarly touching and endearing grace of early blossoming and fading; Bach stands for the edifying and comforting submission to God's paternal plan of which suffering and dying form a part. But we do not really read these qualities from their biographies and from such facts about their private lives as have come down to us; we read them solely from their works, from their music.

If you are reading this passage during the Letter 4 session, at the Atlanta Speech School, please stop reading, stand up, and put your right hand on your ear.

Furthermore, although we know Bach's biography and deduce his personality from his music, we involuntarily include his posthumous destiny in the picture. We conceive him as living with the knowledge, which causes him a silent smile, that all his work would be forgotten after his death, that his manuscripts would be treated as so much waste paper, that one of his sons instead of himself would be considered "the Bach" and harvest the success he himself merited, and that after his





## HOW MUCH WE READ



QUANTITY VS. QUALITY

COGNITIVE OVERLOAD

# "...THE AVERAGE PERSON CONSUMES MULTIPLE GIGABYTES ACROSS VARIED DEVICES EACH DAY."

~MARYANNE WOLF

(REFERENCING RESULTS FROM THE UNIVERSITY OF CALIFORNIA'S GIIC "HOW MUCH INFORMATION" STUDY)

### "BETWEEN 50,000 AND 100,000 WORDS A DAY"

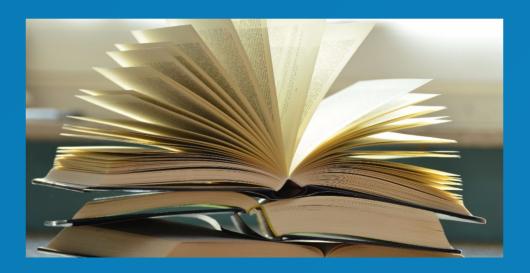
~DR. MARYANNE WOLF

THIS EQUALS 100
TO 200 SINGLE
SPACED PAGES

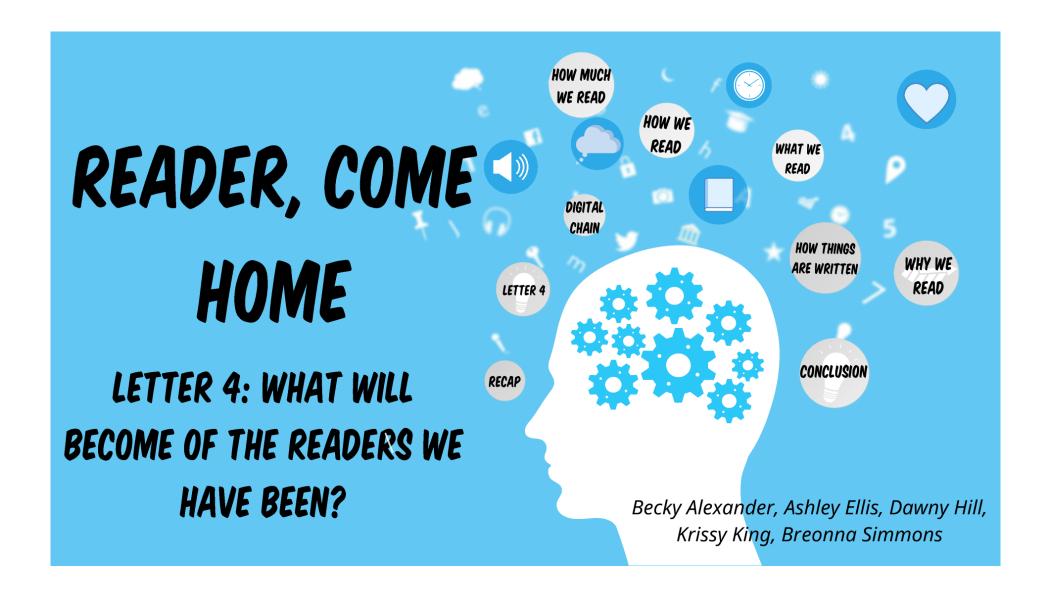




### A NOVEL WORTH OF WORDS EACH DAY!!

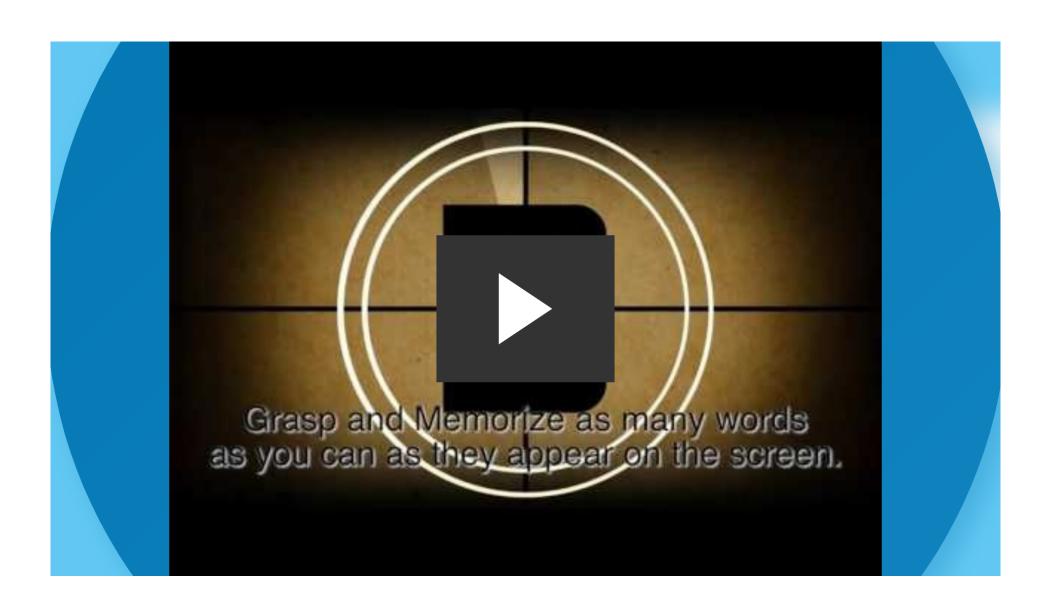


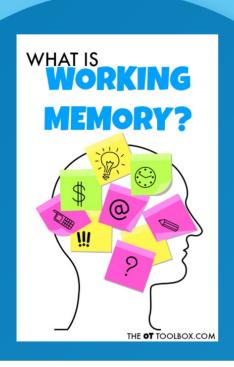










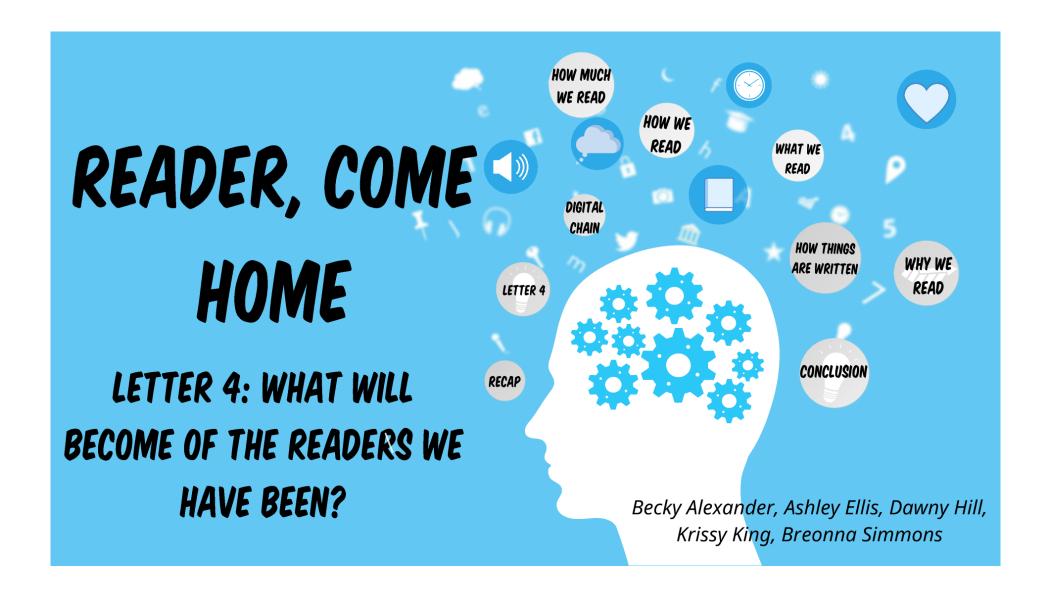


#### **Definition of working memory**

: memory that involves storing, focusing attention on, and manipulating information for a relatively short period of time (such as a few seconds)

#### "BOOKS ARE HOME – REAL, PHYSICAL THINGS YOU CAN LOVE AND CHERISH." – MICHAEL DIRDA

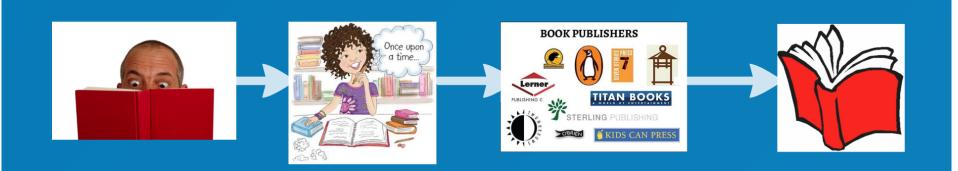




### WHAT WE READ



THE CONNECTION

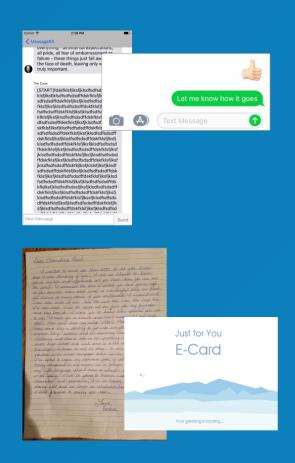


"EVERYTHING HAVING TO DO WITH READING IS CONNECTED:
READER, AUTHOR, PUBLISHER, BOOK; IN OTHER WORDS, THE
PRESENT AND FUTURE OF READING."

"DR. MARYANNE WOLF

### TIME









"IF OUR PERCEPTION OF BEAUTY BECOMES REDUCED TO SKIMMING LIKE A WATER STRIDER ACROSS THE THIN SURFACE OF WORDS, WE WILL MISS THE DEPTHS BELOW; WE WILL NEVER BE LED BY BEAUTY TO LEARN AND UNDERSTAND WHAT LIES BENEATH."

~DR. MARYANNE WOLF

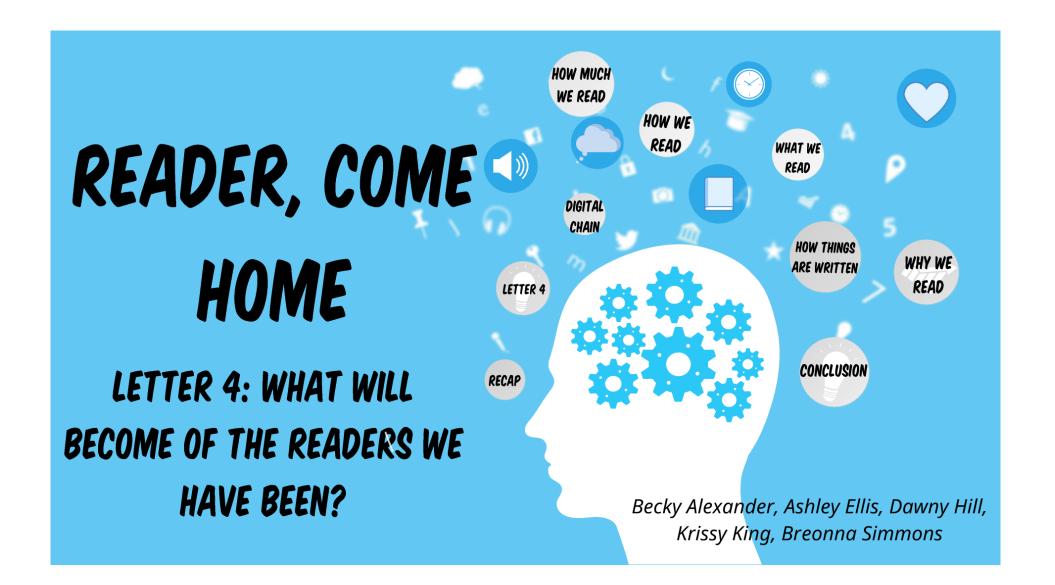


### PRESENT



"THE FUTURE OF LANGUAGE IS LINKED BOTH TO THE SUSTAINED EFFORTS BY WRITERS TO FIND THOSE WORDS
THAT DIRECT US TO THEIR HARD-WON THOUGHT AND TO THE SUSTAINED EFFORTS BY READERS TO
RECIPROCATE BY APPLYING THEIR BEST THOUGHT TO WHAT IS READ."

~DR. MARYANNE WOLF



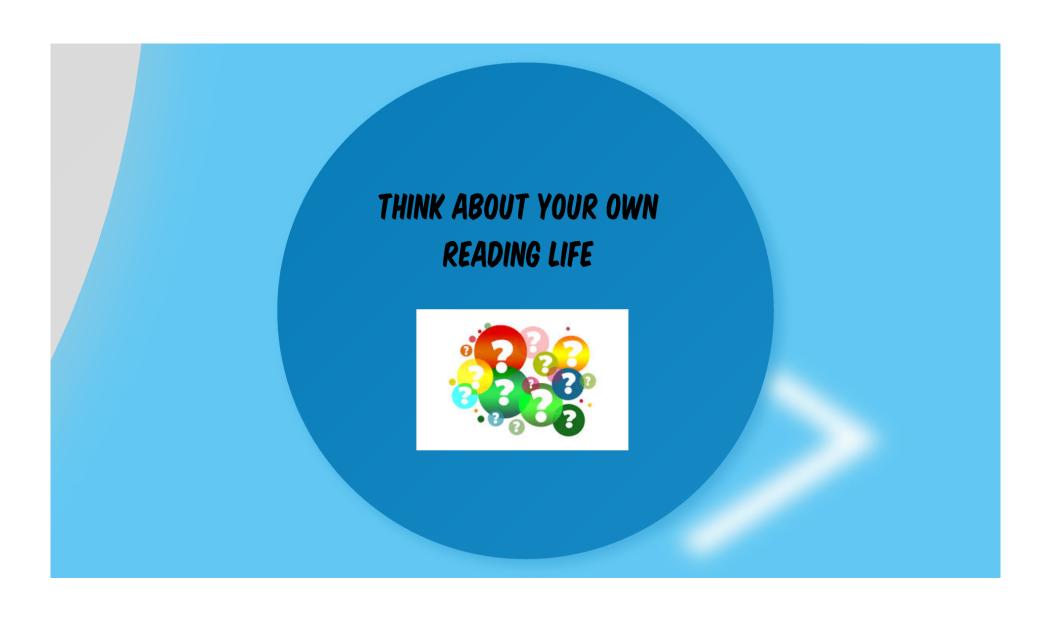


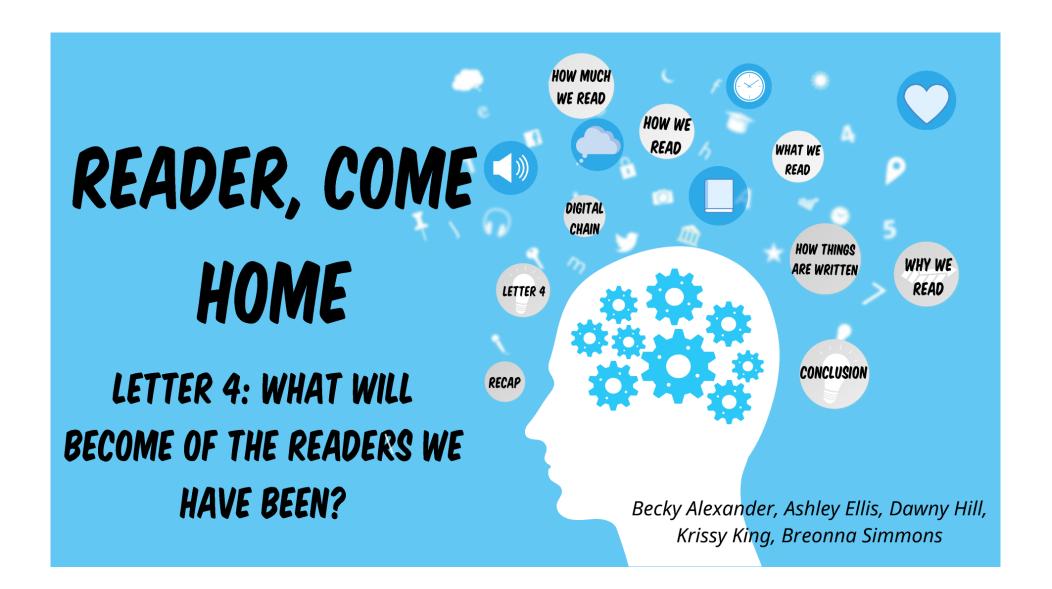


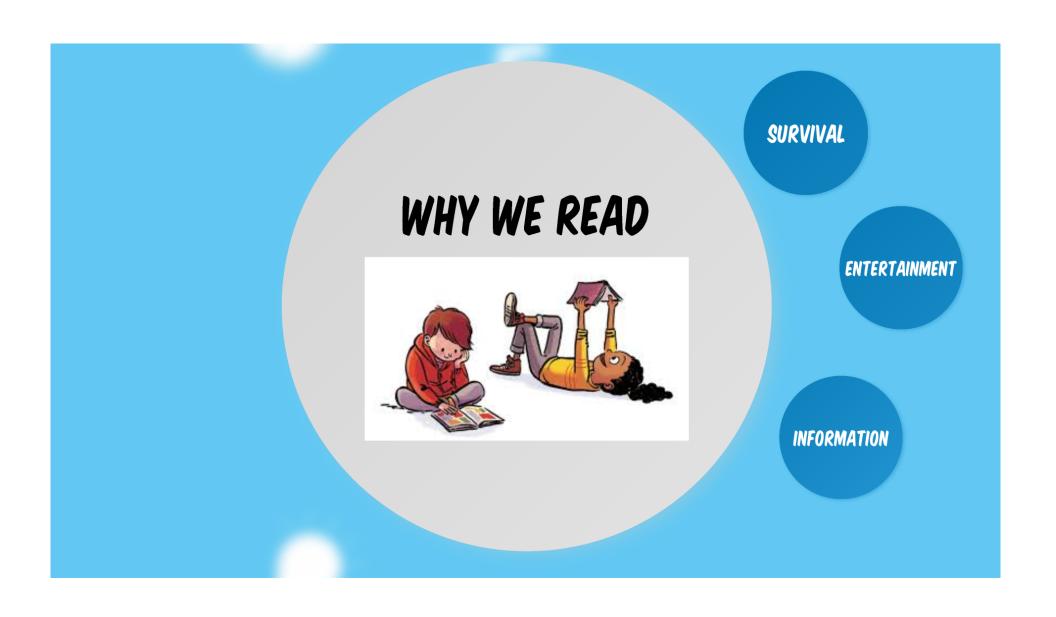
TL; DR

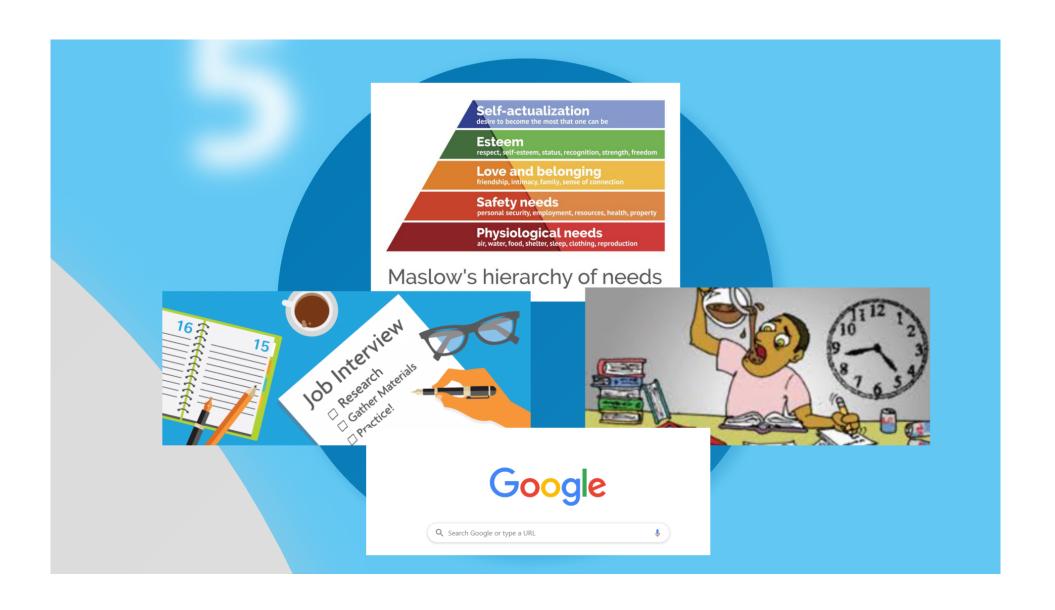
WHY SHOULD YOU FOCUS ON THIS AND WHAT DOES ALL THIS MEAN... REALLY? TL; DR = (TOO LONG; DIDN'T READ)

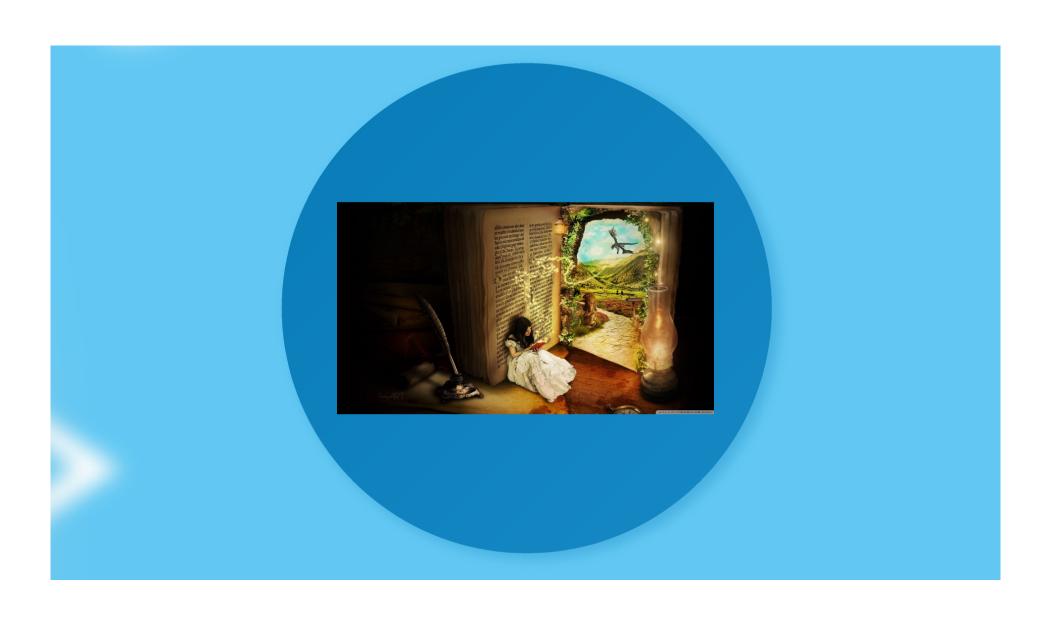
THE DECLINE IN COGNITIVE PATIENCE
HAS LED TO A CHANGE IN
INTELLECTUAL SKILL DEVELOPMENT,
OUR OVERALL COGNITIVE ABILITIES,
AND THE EXPECTATIONS IN
COGNITIVE DEMANDS.



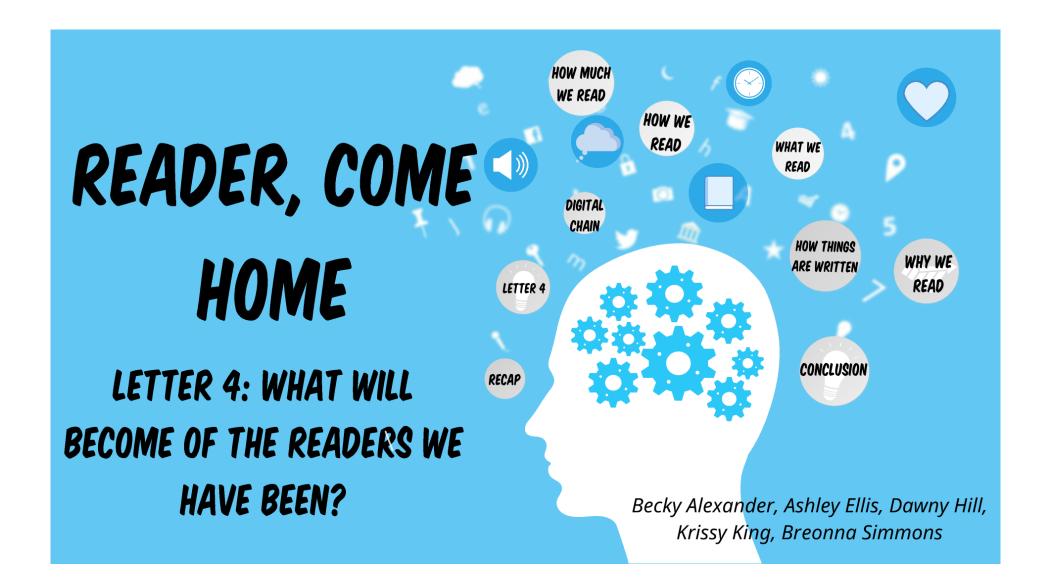












## **OBJECTIVES:**

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REFLECTION



WHAT DOES THIS ALL MEAN FOR US
AS READERS, EDUCATORS, PARENTS,
CITIZENS OF A DEMOCRACY?

ARE THERE CHANGES THAT NEED TO BE MADE? IF SO, WHAT ARE THEY?

