

#### **Visual Processing**

- Black Youth achieve equity in education
- Black Youth become the highest performing group on national and state academic tests
  - All Black Youth achieve their full potential



## What is Visual processing?

- Optical
  - Ensure each student has had a visual eye exam of the optical system and receives glasses/contacts as needed
- Brain processing
  - The brain must process visual stimuli that comes through the optical system in order to make sense of it
- Three types of brain processing strongly related to reading
  - Irlen Syndrome
  - Tracking, fixation, saccades
  - Processing Speed, pattern recognition



## Irlen Syndrome

- 10-12% of the population have difficulty reading because the brain cannot process the background light effectively bouncing off printed materials or from a computer screen
- https://irlen.com
  - Go to <u>www.lrlen.com</u>, select a page with a lot of print and white background and click on the sunglass icons at the top to change the background. See if any of the colors make it easier to read.
  - Do a screening and obtain overlays as needed.
  - Sample screening questionnaire is located on training page for the Black Youth Success Movement website
- Videos
  - Do an internet search and find videos that explain the topic



### Tracking, fixation, saccades

- Tracking—ability of the eyes to follow the words on a page during the reading process, left to right and from the end of a sentence back to the beginning of the next sentence
- Fixation—ability to focus down exactly to the right point on a page in order to read
- Saccades—ability to jump in segments across a sentence to read more quickly vs. focusing on every letter or word
- https://eyecanlearn.com/tracking/saccades/
  - Click on the link to access various eye exercises
  - Scroll down to number saccades
  - Use this exercise to evaluate fixation, tracking and saccades
  - This exercise also evaluates and trains rapid automatic naming, a key skill in fluent reading
  - If this website is not available, click on the following link to access a PowerPoint that replicates the tracking exercise
    - <u>Tracking exercise.ppsx</u>



# Processing speed Rapid pattern recognition

- Reading is the process of recognizing letter patterns as words, decoding
- Go to the following link to test processing speed and rapid pattern recognition
- Pattern Recognition Exercise



## Summary

- How well the brain processes information from our eyes is critical to fluent reading
- The steps outlined in this presentation address most of the likely potential issues that impact reading success
- They are easy to do and are low cost or free
- If any of these items are impeding reading success, they need to be addressed before expecting more instruction to work