Texas School for the Blind and Visually Impaired

Outreach Programs

[www.tsbvi.edu](http://www.tsbvi.edu) | 512-454-8631| 1100 W. 45th St. | Austin, TX 78756

The Math Teacher’s Survival Guide:

Teaching Math to a Student with

Visual Impairment

October 3, 2017

3:00pm-4:00pm

Facilitated by

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Developed for Texas School for the Blind & Visually Impaired Outreach Programs

# Outreach Programs Events Update:

* For upcoming webinars: <http://www.tsbvi.edu/2015-10-17-20-13-33/webinar-listings>
* For upcoming workshops and conferences: <http://www.tsbvi.edu/2015-10-17-20-13-33/outreach-workshops-conferences>

# Housekeeping

* Download handouts and sign-in roster
* Send sign-in roster to [sobeckb@tsbvi.edu](mailto:sobeckb@tsbvi.edu) or fax to 512-206-9320
* Make sure you registered and complete evaluation within 60 days including code for ACVREP/SBEC credit
* View captions in a separate window at <https://tcc.1capapp.com/event/tsbvi/embed>
* The code will be announced during the presentation

# Adobe Connect Webinar Tour

* For tips about screen navigation go to <http://www.connectusers.com/tutorials/2008/11/meeting_accessibility/>
* Location of pods
* Power Point content included in your handout
* Poll participation – enter response in chat if you cannot access the poll

Link to enter room: <http://tsbvi.adobeconnect.com/math/>

The Math Teacher’s Survival Guide:

Teaching Math to a Student with a Visual Impairment

# Introductions

* Katie Nash
  + Elementary Mathematics and Itinerant TVI
* Yvonne Corson
  + Secondary Mathematics and TVI

# Purpose

* Help math teachers who have students with visual impairments in their classes understand how the TVI can help them with that student (and it helps others, too!)

# Getting Started

* Collaborating with the General Ed teachers takes a plan:
  + Develop a rapport
  + Explain the specific visual impairment of the student in their class
  + Plan for the role of the paraprofessional (if there is one\_
  + Set up a calendar for times to collaborate – typically planning time
* Meet before school starts with the class objective/test schedules, etc
* Set up a system for getting assignments: a mailbox, a Google Drive
* Discuss and make a plan for providing accessible materials to the student
  + Math teachers may already have MathType in Microsoft Office
  + Or make a plan for other formats

# Google Drive

Video illustrating how Google Drive is used to share files

# MathType

Video overview of how to use MathType

# Setting Up a Classroom

* Seating – based on the specific student’s etiology
* Added tables
* Designated shelves
* Safety – clear pathway for exit door
* Plan for rearranging the room (students can do this!)

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Figure 1 Photo of a clean and tidy classroom



Figure 2 Photo of classroom that is cluttered



Figure 3 Photo of ideal classroom where outlet is nearby

# Elementary Tips

# Correspondence

Video illustrating 1-1 Correspondence

# Pattern and Sequencing

# MG_7000.jpg

Figure 4

# Flash Cards



Figure 5 Flash Cards with pasta attached

# Magnetic Numbers with Braille



Figure 6 Magnetic Tactile Numbers 1-9 with Braille

# Choices for Dice Math Games



Figure 7 Large yellow and green foam dice, Talking Dice, and 2 Braille Dice

# Braille Playing Cards



Figure 8 Braille playing cards

# Color by Number Activities

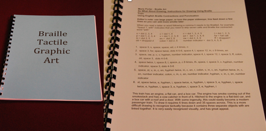


Photo 9 Tactile Art Braille Book

# Secondary Tips

# APH Graph Board

Video illustration of setting up an APH Graph Board – Basic graphic creation (Cartesian coordinate graphics)

# APH Raised Lined Graph Paper

Video of basic graphic creation using raised lined graph paper (Cartesian coordinate graphics)

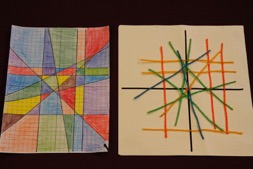


Photo 10 Modified graph project

# APH Draftsman

Video demonstrating APH Draftsman

# Algebra Aerobics

Video demonstrating technique where students can become active in algebra equations

# Pool Noodle

Video illustrating how a pool noodle can tactilely aide in math equations

# Testing Tips

* STAAR Formula Charts
  + Get three copies
* STAAR Braille Released Tests



Figure 11 Page from print and braille versions of the STAAR 2016 Algebra 1 Released Test

# https://lh6.googleusercontent.com/TZB2RtJQTuTILpK6ys9kHH1t0MQAITvdoHJOl2UPJMJKGVODtIEq1eBN-7AbgOrZgZMnhyXPPmRyw5qt81ZnozBVxlkQbEfAc8ohNlr7-eFn5uHFOEZUDNB0f6b49xjicqGaP4L8Jf8

Figure 12 STAAR Grade 3 Mathematics Reference Materials, May 2016, in print and braille

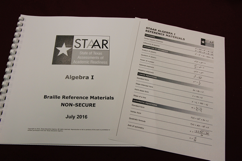


Figure 13 STAAR Algebra 1 Reference Materials, July 2016, in print and braille

# Resources

* [Braille Art Instructions](http://www.pathstoliteracy.org/sites/pathstoliteracy.perkinsdev1.org/files/uploaded-files/English-Braille-Contractions-and-Punctuation(2)_0.pdf)
* [Braille Magnetic Numbers - $9.95 w Free Shipping](http://www.braillebookstore.com/Braille-Magnetic-Numbers.1)
* Hard copies of STAAR released braille tests can be ordered by calling ETS Order Services at 800-537-3160

# Thank You for Joining Us

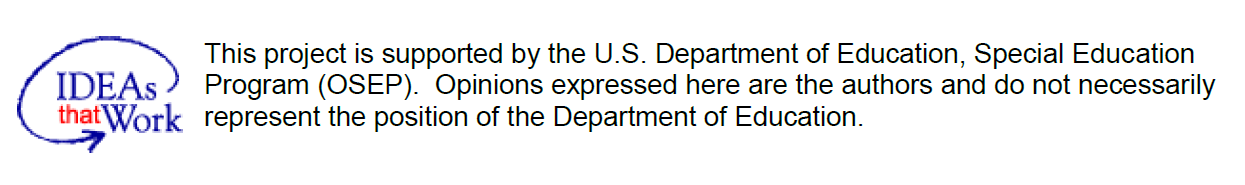


Figure 14 IDEAs That Work logo and OSEP disclaimer

TSBVILogoScalable

Figure 15 The Texas School for the Blind and Visually Impaired logo