

Dyslexic Advantage

NEWSLETTER

CONGRATS INGENUITY AWARD WINNERS! 2019



IN THIS ISSUE:

- THE 'WHY' OF MATH VISUAL REPRESENTATIONS
- ARTSHARE

- WHAT ABOUT READ ALOUD ACCOMODATIONS?
- DYSLEXIA NEWS

DOWNLOAD THIS
NEWSLETTER **HERE.**

FastBridge
Learning
THIS WAY TO FASTER RESULTS®

 **SUMMIT**
CENTER
Reach New Heights


THE
WRITERS
STUDIO
fiction & poetry workshops

 **Sonday System**
Multisensory solutions for reading.

 **ALL ABOUT** Learning Press

CHURCHILL
CENTER & SCHOOL
National Leader in Learning Disabilities

scanningpens

 maths explained

Recite me

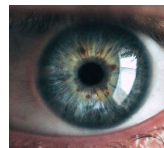


Fernette Eide MD,
Editor

Dear Friends,

Watch and enjoy the presentations from this year's Ingenuity Award winners! Wow! Ingenuity and creativity present make the whole world better whether it's in science, technology, engineering, design, business, or the non-profit world. Huge thanks to all of you who support this community through donation, volunteering, positive awareness, and advocacy. These young people are inspiring examples of the next generation!

- Fernette Eide



**Online Volunteers WANTED for
interesting vision research.
Dyslexic & Typical Readers.
~ 5 minutes. Computer-based**

Check out our wonderful sponsors: **Winsor Learning / Sonday System
All About Learning (Reading & Spelling), Scanning Pens, FastBridge,
Summit Center, Churchill Center & School, Maths Explained, Recite Me, and
The Writers Studio.**



We're happy to announce that our partner **NEUROLEARNING** has launched their iPad-based Dyslexia app for adults and ages 7 & up! The app provides a dyslexia score as well as a report with weak areas and strengths. 3% of profits are donated to Dyslexic Advantage.

Thank you to volunteers Trish Seres, Dayna Russell Freudenthal, Michelle Williams, and Shelley Wear for their tireless proofing and feedback. Thank you Lady Grace Belarmino for her beautiful design work and admin support by Sarah Macapobre.

GO PREMIUM

Editors' Note: to ensure that our dyslexic members are able to read our publication without difficulty, our editorial policy is to avoid the use of fonts or typefaces, such as italics, that can impede readability.

If you're reading a print
copy of this issue, you can find the
digital copy with all the interactive
features here: <https://joom.ag/02ha>



CONTENTS

DYSLEXIC ADVANTAGE ISSUE 42 JUNE 2019 NEWSLETTER



4

**INGENUITY AWARD
WINNERS! 2019**

21

Congratulations

**SPECIAL RECOGNITION
AWARDS**

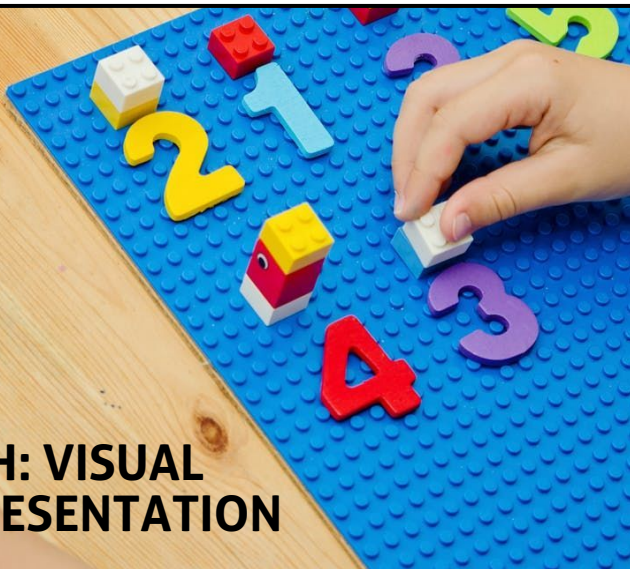
22



**PARTIAL READ-
ALOUD**

ACCOMMODATIONS

29



**MATH: VISUAL
REPRESENTATION**

DYSLEXIA NEWS



35

INGENUITY AWARDS



LYDIA, 8 Jackson, MS
First Presbyterian Day School

GIRL SCOUT LAW GAME

My Girl Scout troop couldn't learn the Girl Scout Law. I thought making a game would be helpful. I made a game at school for my Innovators class, and we learned the steps of how to make a game. I tried different designs until I found one that worked because you could go all around the board, and if you didn't get to land on a certain portion of the Girl Scout Law, you could go back.

I picked a flower garden theme for the game board...I played the game with my mom so we could figure out the rules and write them down. By the end of the game, we had both learned the Girl Scout Law.



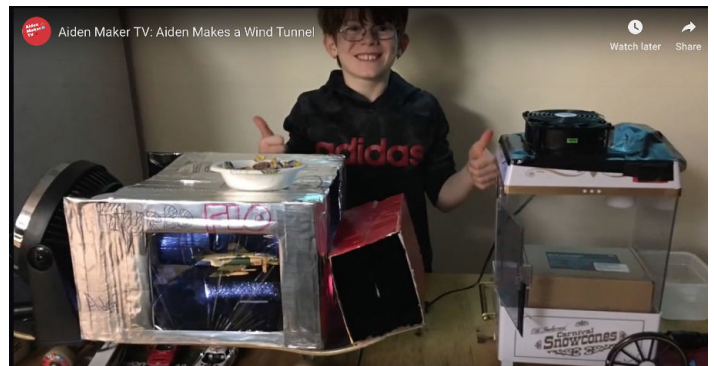
INGENUITY AWARDS



AIDAN, 11 Greenbrae, CA
Lindamood Bell Academy

WIND TUNNEL

I experiment with WIND! This crazy science experiment, of course, leads to making A WIND TUNNEL that I called The Turbo Flow! The Wind Tunnel was tough to make. It took weeks and weeks. One version of it completely failed!! Then I made one that worked and I could see how wind ebbs and flows around objects. It's was really cool.



The Impact of Reflective Wings on Solar Absorption



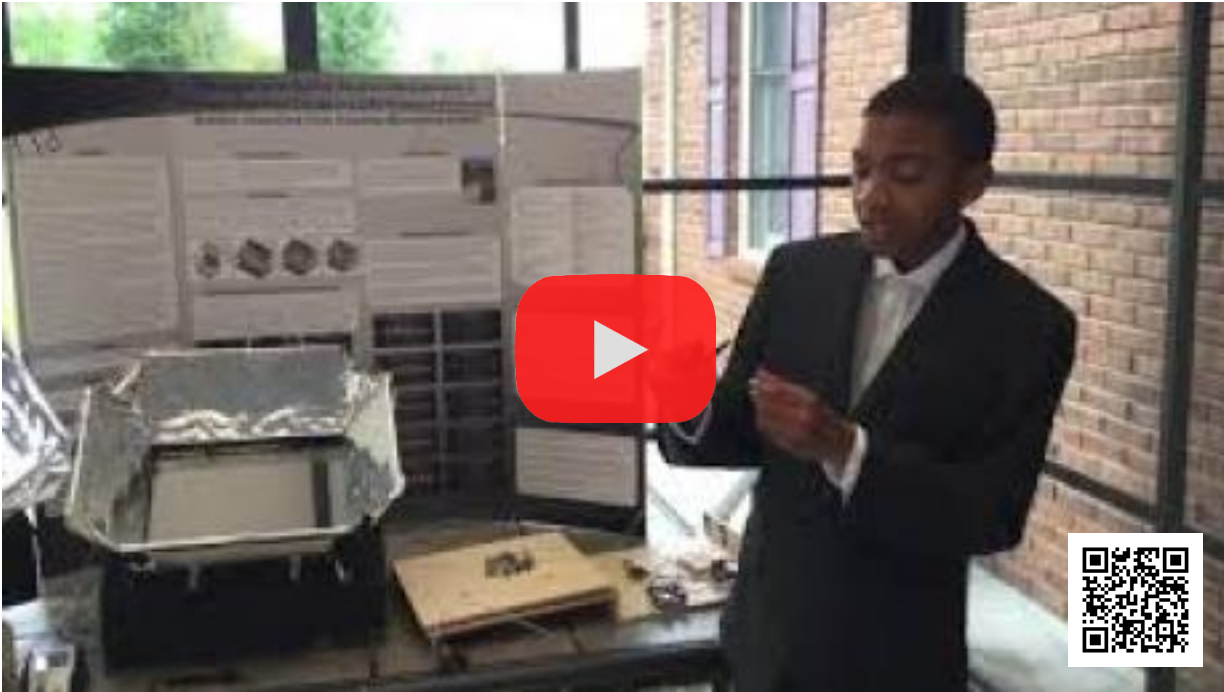
JAVON, 13 Huntsville, AL
Homeschool

Solar power should be looked at as a potential energy source for providing emergency stored energy, for charging necessary small devices during emergencies, or when in remote areas with an unstable power grid.

One reason that solar powered charging stations are not in wider use is because location locked panels can take long periods of time to charge, can charge inconsistently, and must be manually moved.

The first thing I wanted to examine for this solar charging station was whether a flat panel was the most effective way to harness solar energy. To ensure I was focusing only on flat panel versus parabolic design and to control the cost of the study, I decided to look at energy harnessed from the sun in the form of heat. This would allow the study to not be impacted by variances in the performance of solar panels. I felt there was a lot that could be learned in the design of this project, but also could be used in other solar designs. For instance, harnessing heat from the sun is useful for things such as water desalination. Even though this is a preliminary first step in a multi-stage project design, what would be learned from this experiment could have immediate long-term use.

The purpose of this study was to identify the impact of parabolic wing angle on a solar energy absorption unit's ability to harness energy from the sun as measured by the unit's internal temperature. Four units were designed, first in CAD, then 3D printed, and finally fully prototyped for study. The top of the units was at 55 degrees from horizontal which is the average position of the sun for all seasons in my location. The first unit served as a control with no parabolic wings. The second unit had a wing angle of 90 degrees to the unit's top surface. The third unit had a wing angle of 60 degrees to the unit's top surface. The fourth unit had a wing angle of 45 degrees to the unit's top surface. The four units were placed outside on five mostly sunny to sunny days to measure how hot each unit got.



"Results indicated that the angle of the parabolic wings did impact energy absorption with the unit with 60-degree wings outperforming the other three units 64% of the time."

The Impact of Reflective Parabolic Wing Position to Concentrating Solar Energy in a CAD Designed Automated Arduino Controlled Solar Tracking Absorption Device

Rationale

People rely on technology that often cannot sustain the required charging at increasing rates. This includes phones, computers, laptops, and more. Reflective solar energy is a renewable source of energy that can be used to power these devices. This project aims to create a solar tracking device that can absorb solar energy and convert it into electricity. The device will be made of reflective material and will be controlled by an Arduino Uno microcontroller. The device will be able to track the sun's position and adjust the angle of the wings to maximize energy absorption. The device will be able to track the sun's position and adjust the angle of the wings to maximize energy absorption. The device will be able to track the sun's position and adjust the angle of the wings to maximize energy absorption.

Purpose

The purpose of this study is to determine the impact of parabolic wings on a solar energy absorption rate. The study will be conducted in a controlled environment. The study will be conducted in a controlled environment. The study will be conducted in a controlled environment.

Research Question

What is the impact of parabolic wings on the energy absorption of a solar tracking device?

Hypothesis

The angle of parabolic wings on a solar tracking device has a positive impact on the amount of solar energy absorbed. The angle of parabolic wings on a solar tracking device has a positive impact on the amount of solar energy absorbed.

Engineering Goals

1. To create a solar tracking device that can absorb solar energy and convert it into electricity.
2. To determine the impact of parabolic wings on the energy absorption of a solar tracking device.
3. To see how the device can be used in a real-world application.

Engineering Design

The device was designed to be a solar tracking device. It was made of reflective material and was controlled by an Arduino Uno microcontroller. The device was designed to be a solar tracking device. It was made of reflective material and was controlled by an Arduino Uno microcontroller.

CAD Design

The device was designed using CAD software. The device was designed using CAD software. The device was designed using CAD software.

Solar Absorption/Collection Box Fabrication

The solar absorption collection box was made of reflective material. The solar absorption collection box was made of reflective material. The solar absorption collection box was made of reflective material.

Tracking System Design

The tracking system was made of reflective material. The tracking system was made of reflective material. The tracking system was made of reflective material.

Tracking Circuit Design

The tracking circuit was made of reflective material. The tracking circuit was made of reflective material. The tracking circuit was made of reflective material.

Test Procedure

The device was tested in a controlled environment. The device was tested in a controlled environment. The device was tested in a controlled environment.

Data Results and Analysis

The data results showed that the device was able to track the sun's position and adjust the angle of the wings to maximize energy absorption. The data results showed that the device was able to track the sun's position and adjust the angle of the wings to maximize energy absorption.

Tracking Code (Arduino)

```

// Tracking Code (Arduino)
// This code is used to control the solar tracking device.
// It is written in C++ and runs on an Arduino Uno microcontroller.
// The code is used to control the solar tracking device.
// It is written in C++ and runs on an Arduino Uno microcontroller.

// Define the pins for the motor and the sensor.
const int motorPin = 9;
const int sensorPin = 0;

// Define the variables for the motor and the sensor.
int motorSpeed = 0;
int sensorValue = 0;

// Setup the pins for the motor and the sensor.
void setup() {
  pinMode(motorPin, OUTPUT);
  pinMode(sensorPin, INPUT);
}

// Loop the code to control the motor and the sensor.
void loop() {
  sensorValue = analogRead(sensorPin);
  motorSpeed = map(sensorValue, 0, 1023, 0, 255);
  digitalWrite(motorPin, HIGH);
  delay(100);
  digitalWrite(motorPin, LOW);
  delay(100);
}

```

Conclusion and Future Design Considerations

The device was able to track the sun's position and adjust the angle of the wings to maximize energy absorption. The device was able to track the sun's position and adjust the angle of the wings to maximize energy absorption.

References

1. "Solar Tracking System." *Solar Tracking System*. n.d. Web. 10 Oct. 2017.
2. "Solar Tracking System." *Solar Tracking System*. n.d. Web. 10 Oct. 2017.
3. "Solar Tracking System." *Solar Tracking System*. n.d. Web. 10 Oct. 2017.



Sonday System[®]

Multisensory solutions for reading.

- **EVERYONE** can be an effective multi sensory teacher
- **More than 40,000** educators are using the system
- **Comprehensive**
- **Quick to Implement**

International
DYSLEXIA
Association[®]

 **National
Center for
Learning
Disabilities**

National Center for Learning Disabilities, the International Dyslexia Association have evaluated the Sonday System(r) and deemed that the program contained the required elements for teaching reading identified by the Nation Reading Panel.

INGENUITY AWARDS

FIRST TECH Challenge Robot

My brother and I along with several friends put together a team and decided to join First Tech Challenge.

Our problem was to design and program a robot to complete specific tasks. There were 2 main parts to the competition. The first was to program the robot to autonomously drop itself 4 inch down to the ground, use a camera to detect and move a yellow object and place a marker in a specified area. In the second part of the competition, the drivers took control of the robot with the goal of picking up balls and cubes and placing them in a lander.

The robot required two drivers. One person controlled the arm to grasp, and the other person drove the robot. My brother and I were the drivers at competition.



BRAEDEN and TREVOR, 16
Jackson, LA
Homeschool

Additional non-dyslexic team members included Christina, Jared, Ezra, Brooks, Joseph, Joshua, and Adam.



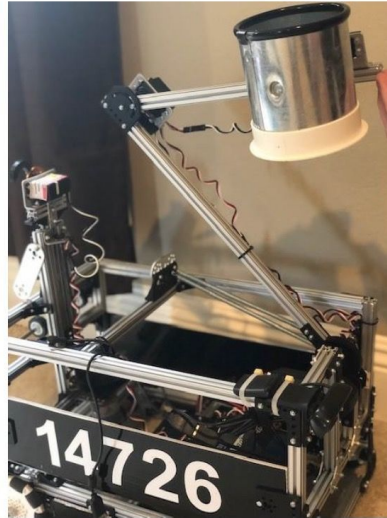
This is our robot Jarvis. He took many months to design and build.

INGENUITY AWARDS

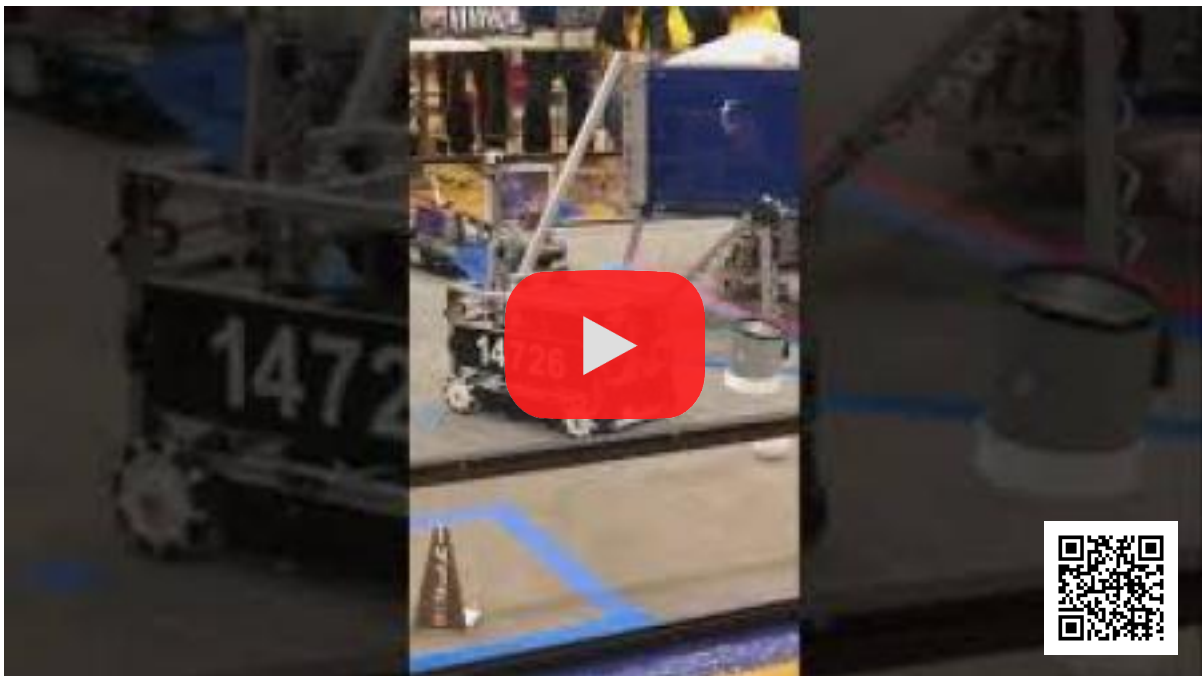
One of the tasks was to design the robot to raise and lower itself. We designed a telescopic arm with a screw derive to accomplish this.



Next we had to design an arm to collect and deliver balls and cubes to the lander.



Click on the video below to see Jarvis in action.



We take the struggle out of Reading and Spelling



ALL ABOUT *Reading*



ALL ABOUT *Spelling*

Multisensory • Research-based • Orton-Gillingham approach

www.AllAboutLearningPress.com



READERPEN™



Increases independence & confidence



Multiple Built in Dictionaries including Primary



Enhances comprehension & literacy skills



Curriculum is made available to all



No more time stretched parents or teachers

\$250.00
ex TAX and shipping

**#succeed
with
dyslexia**

www.scanningpens.com | www.readerpen.com

**GREAT
FOR USE
AT HOME
& SCHOOL**



FREE 30-DAY TRIAL

AVAILABLE TO SCHOOLS AND EDUCATION PROFESSIONALS

JOIN OUR WEBINARS

Sign up for a **FREE** webinar



Scan here for
more information!

EXAMREADER™



No dictionary or storage, making it ideal for exams and testing. See examreader.com for more information
Add to IEP or 504 Plan as Text to Speech

DIRECTOR OF SPECIAL SERVICES / 504 COORDINATOR

"We are very happy to be able to offer our students the C-Pen Reader Pens. We have found much success with the devices helping our students to access text, which has impacted every other area of their academic development. The pens have been a helpful tool for a wide range of users, from those with reading and learning difficulties (particularly dyslexia) to general students. Our students who have received the reader pen are feeling better about reading which is translating into better academic outcomes."

INGENUITY AWARDS



John, 16 Lampasas, TX
Lampasas High School

I invented a hay squeeze that can go on the back of any pickup and attach to the goose neck hitch to move hay. A lot of farmers in my community do not have the need for a \$14,000 hay bed, or just cannot afford one. I built this for the farmer who only needs to move a couple of bales at a time. It is much cheaper than the competition and much more convenient...

The idea of a hay squeeze is not new. But, making it universal, to fit any truck is new. It was my idea to add the rack for the cake feeder and it was also my idea to use the drop jacks when it's not on a truck. I also added wheel attachments so it will be easier to move around when not on a truck. I also added the boxes, to try and bling it up a bit.



She isn't
the same kid she
was a year ago.

Now she has
All About® Reading.



Based on the Orton-Gillingham approach,
All About® Reading is...

- Multisensory
- Mastery-based
- Customizable
- Suitable for all ages and learning styles

Give your child the tools she needs to succeed.

 ALL ABOUT *Reading*

Go to www.AllAboutReading.com to learn more!

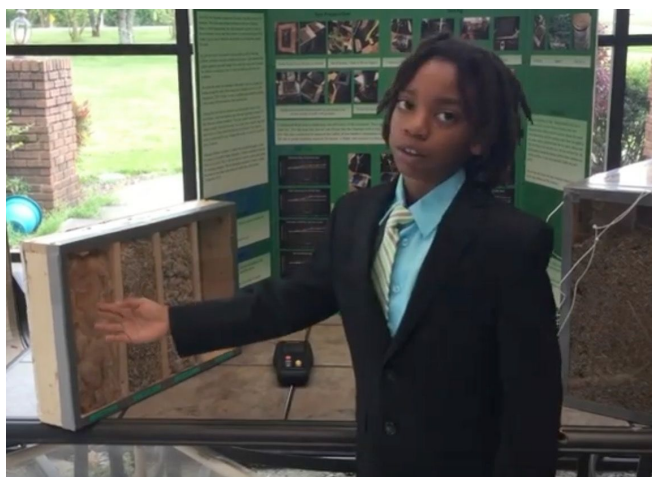
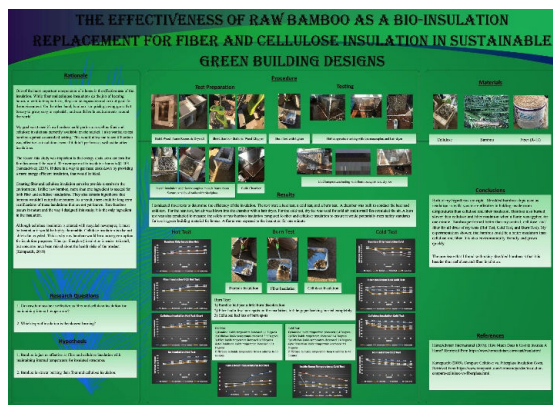


Jordan, 11
Huntsville, AL
Homeschool

Effectiveness of Raw Bamboo As a Bio-Insulation

The purpose of this study was to examine if bamboo could be used as an effective green insulation, and a replacement for common fiber and cellulose insulation for green energy efficient building. To test the hypothesis that shredded raw bamboo can be used as an effective wall insulation in homes, I built for small scale rooms.

The first room was used as a control with no insulation. The other three rooms had fiber insulation, cellulose insulation, and shredded bamboo insulation. Each room had drywall on the interior and plexiglass on the exterior wall. I conducted three tests to determine the efficiency of the insulation. The tests were a heat test, a cold test, and a fire test. A chamber was built to conduct the heat and cold test. For the heat test, hot air was blown into the chamber with a hair dryer. For the cold test, dry ice was used for cold air and a small fan circulated the air. The fire test was conducted with a lighter with the flame on the insulation for one minute. The results showed that the bamboo performed better in all three tests. The weight of the bamboo was the only issue found to its use as an effective green insulation.



INGENUITY AWARDS



Makaila, 11
Huntsville, AL
Homeschool

Star Luminosity Impacting Finding Exo-planets

One of the most interesting areas of astrophysics research is identifying exoplanets that are orbiting other stars. There are literally millions of stars that are visible with current technology. Since spotting an exoplanet can be difficult, it makes sense to focus first on the stars that are most likely to have a visible planet orbiting.

The purpose of this study is to determine if the luminosity, or brightness, and the color of the star impacts the ease at which a planet can be spotted orbiting the star. Since stars called, "Hot Jupiters" (meaning the planet is very large at about 10% the size of the star and orbiting very close to the star) are the most easy to spot, that is what I will be focusing on with

I will be creating a model that simulates the use of the transient photometry method. This means I will be trying to determine how easy it is to see a dip in light from the star from a shadow of the planet orbiting in the front of the star. Since this is a simulation, I will be exaggerating the dip in light that would normally be seen in real life research. This is because the purpose of this study isn't to spot exoplanets per se, the purpose is to determine if the color and luminosity of the star impacts how easy it is to spot the shadow made when the planet orbits in front of the star.



"I had no idea I could like school! At Summit Center, I found out I was both dyslexic and smart... and I think differently. They gave me the tools I need to succeed."

Helping Children, Teens, Adults, and Families Realize Their Potential

assessment | consultation | treatment

Summit Center specializes in helping students with complex learning profiles and differences – including kids who may be gifted, and those who might be both gifted and have challenges (known as twice-exceptional or 2e). We provide formal evaluations of strengths and challenges, and offer specific strategies and recommendations to guide growth and maximize potential.



SUMMIT CENTER

Reach New Heights

San Francisco Bay Area 925-939-7500

Los Angeles Area 310-478-6505

www.summitcenter.us





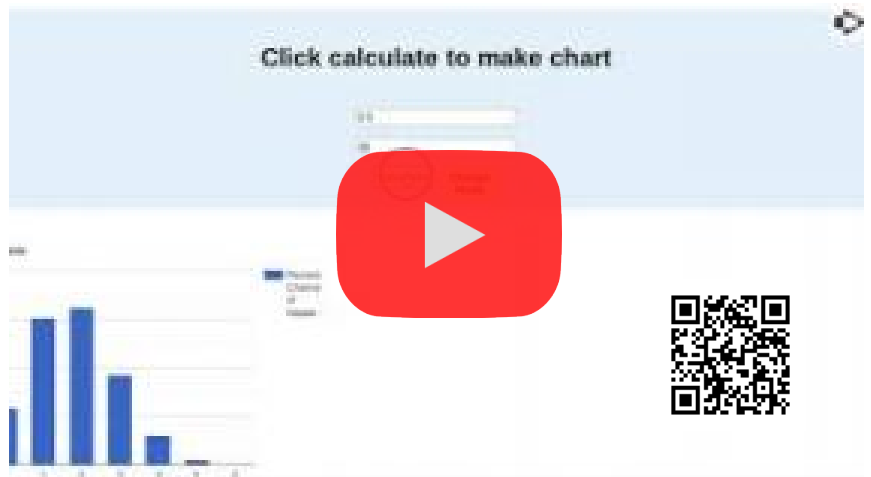
REEGAN, 15
Sun Prairie, WI
 Sun Prairie High School

Probability Calculator

The problem that I solved is how to easily calculate the chance of an event being successful when the event happens multiple times.

I wrote a computer program using JavaScript, HTML, and CSS. The purpose of the program is to create charts that visualize the probability of each possible number of successes of an event, given that the event has a set chance of being successful. There is a second mode to the program, that instead of showing the chances of success of an event, it shows the probability of drawing wanted cards from a deck when a number of cards are drawn.

The video illustrates 3 different charts being made using the program. The first two charts are made using the first mode, showing the chances of each possible number of successes if an event happens 6 times and has 30 percent chance of success for the first one, and another event that happens 30 times with a 50 percent chance of success. The last chart shows the probability of drawing the 4 wanted cards from a deck of 52 cards when 7 cards are drawn.





Evan, 16

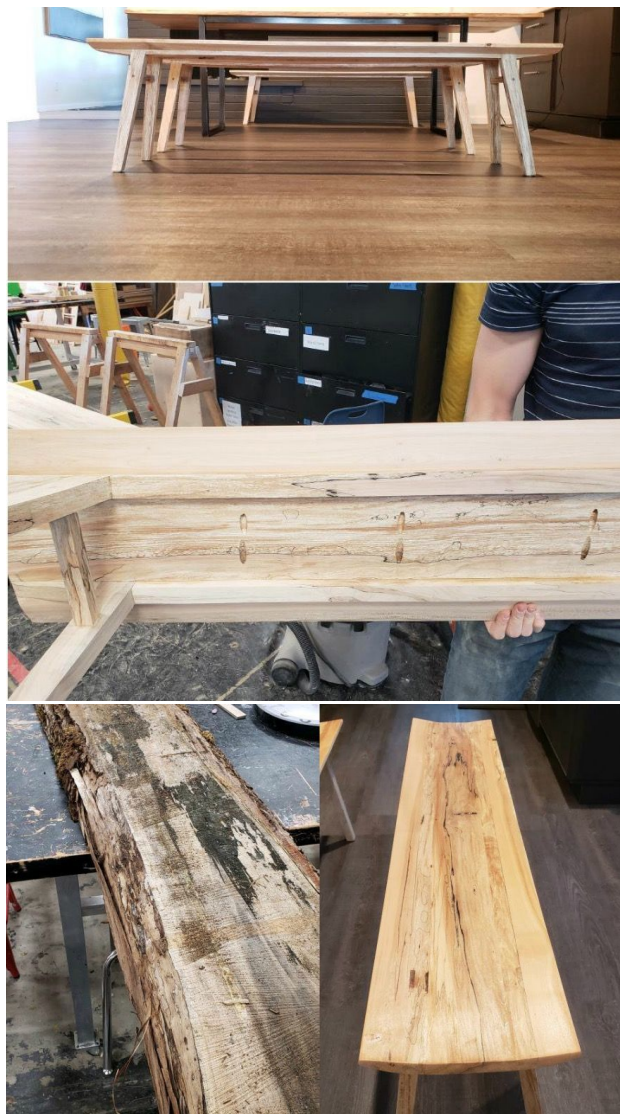
Tacoma, WA

Industrial-Design-
Engineering-Art School

Mixed Media Dining Room Table Set

The problem I solved for my new bench was figuring out a stronger more modernized design that would look good but would also serve a purpose of withstanding increase weight as my previous bench design did not have. I didn't put leg joints in the bench which created not as strong of a hold to withstand the weight. In my new bench that I'm submitting photos of, I put joints where the legs connect to the base of the bench, to make it more physically appealing and stronger.

The reason why I chose to create a dining room set with a live edge table and Japanese style benches was that I wanted to go for the more challenging, and traditional type of building while still going for the craftsman style for the table. I feel like having benches with an angle will look more appealing to the eye and also, when you sit, it holds you in better and it gives your legs better support. I also chose to go with the Japanese style of benches because it makes them unique from most benches around the world and every time someone walks in our house they always say how much they love the style, and how they are super unique to any other benches they've seen before.



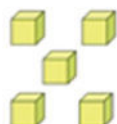


maths explained

Video tutorials to help with dyscalculia
and mathematical learning difficulties

Visual images and building understanding

Linking images to
symbols/numbers



$$5 + 5 = 10$$

$$2 \times 5 = 10$$

$$10 \div 2 = 5$$

Inter-relating numbers
and operations + - x ÷

Reversing



$$10 - 1 = 9$$

$$9 + 1 = 10$$

Why Maths Explained?



Devised and delivered by an internationally regarded expert in the field of maths learning difficulties.



The structure of the programme and the principles that drive it are based on research from around the world on how people learn, and fail to learn, maths.

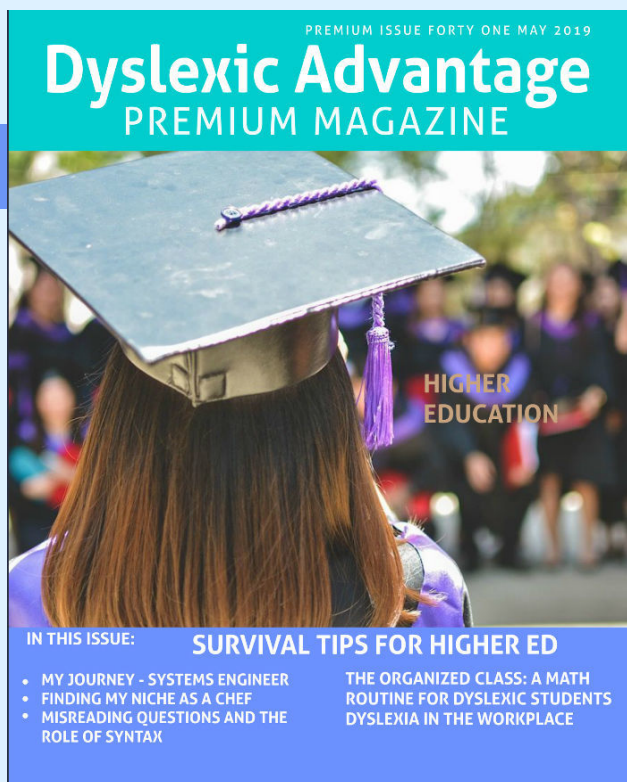


The videos develop an understanding of maths by addressing and circumventing the barriers that handicap learning. They are about using that understanding to support memory.



Each video uses carefully designed visual images, matched to the relevant maths vocabulary and concepts in order to enhance understanding.

CLICK THIS AD TO WATCH OUR SAMPLE VIDEO TO SEE OUR APPROACH



PREMIUM

PREVIOUS ISSUE



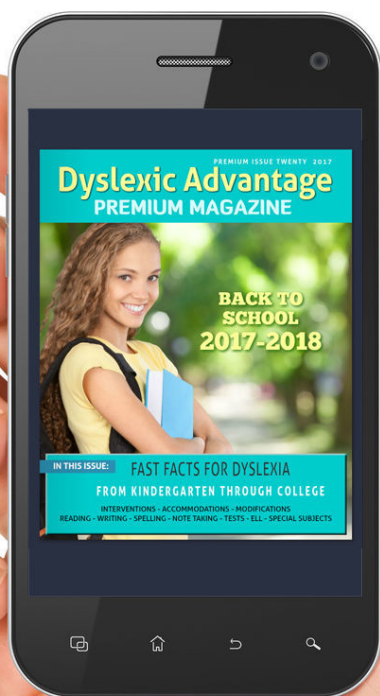
SURVIVAL TIPS FOR HIGHER ED

Journey of a Systems Engineer
Finding My Niche as a Chef
The Problem of Misreading Questions
The Organized Class for Math
Dyslexia at Work

SUBSCRIBE

It's just
\$5 per month!
(\$60 per year)

READ DYSLXIC ADVANTAGE PREMIUM ON MOBILE DEVICES TOO!



**"Amazing issue! I love the
hands-on advice!"**

\$5 per month!



All Premium subscribers can also receive
promo codes to access current and back
issues on their iOS and Android devices.

SPECIAL RECOGNITION AWARDS

The Ingenuity Awards Committee also wanted awarded the following Special Recognition Awards to Alex, Brooks, Carly, Charlie, Evander, Gwydolyn, JJ, and Patricia.

Their projects were remarkably diverse and creative and showed knowledge, ability, and insight beyond their years. Congratulations!



ALEX, 12 IOWA DRY FLY

BROOKS, 11 ALABAMA BROOKS AMERICAN BLUES DESIGNS

CARLY, 13 MASSACHUSETTS INSULATING PHONE CASE

CHARLIE, 14 NEW YORK LEGO CENTERPIECES

EVANDER, 10 CALIFORNIA THE DYSLEXUNIQUE BRAIN MOBILE

GWNDOLYN, 14 NEW MEXICO TAKE AWAY INGREDIENT

JJ, 14 CALIFORNIA SAVE ME!

PATRICIA, 11 SOUTH CAROLINA When Will I Go To Europa?

PARTIAL READ-ALLOUD

A C C O M M O D A T I O N S



In Indiana, an effort is underway to allow students who use screenreaders in their classroom as an accommodation to use them on state tests.

"...students in grades three through eight are denied screen readers for the reading comprehension portion of the ELA test. Screen readers are also not allowed for Indiana's Graduation Qualifying Exam, according to Clemens.

This would change if Senate Bill 390 and its amendment on screen readers is approved by state lawmakers.

If approved, it would ensure that students who receive voice-to-text, screen reader, and human reader accommodations during classroom instructions or as part of an individual education program would receive the same accommodations during statewide exams."

Is this necessary? Is it controversial?

Allowing screenreaders for all parts of required state testing is controversial because to do so would prevent the test from accurately assessing reading comprehension.

In the most recent issue of the Journal of Learning Disabilities (Giusto and Ehri, 2019), the authors looked at the effect of partial reading accommodations on the reading comprehension performance of poor decoders (dyslexia) and average decoders.



Multisensory solutions for reading.

Since 1997, we have turned over 500,000 struggling students into thriving students.

We created a product that anyone can use to be a successful **Orton-Gillingham** based tutor.

No really...anyone.

www.winsorlearning.com

800-321-7585



Here is a summary:

"Participants were 82 third graders with at least average listening comprehension skills: 28 were poor decoders, and 54 were average decoders; mean age 8 years, 9 months (8:9). In the PRAP (Partial Read Aloud with Pacing accommodation) condition, students' were paced through the Gates MacGinitie reading comprehension test. **The examiner read aloud only directions, proper nouns, and questions with multiple choice answers while students read the passages independently.**

PRAP was compared to a standard testing condition and a pacing only condition. Poor decoders' reading comprehension was significantly higher under PRAP than under either the pacing or standard testing ($p < .01$), whereas average decoders did not benefit from the PRAP procedure. Results support PRAP as a valid test accommodation procedure for readers who struggle with decoding but not listening comprehension."

Pacing involved telling students when they should read each item, choose an answer, then move onto the next passage.

Table 3. Means, Standard Deviations, and Test Statistics in the Read Aloud (RA), Pacing (P), and Standard (S) Testing Conditions for Average Decoders and Poor Decoders on the Gates MacGinitie Reading Comprehension Test (Maximum Score = 48 Correct).

Decoding Ability	Read Aloud M (SD)	Pacing M (SD)	Standard M (SD)	F Value ^c (1/2,76)	p	η^2_p
Average decoders	42.11 (4.3)	40.65 (5.1)	42.17 (3.0)	(DA) 106.76	.00	.58
Percentile rank	83	80	83	(TC) 8.23	.00	.18
N	19	17	18	(DxT) 5.82	.00	.13
Bonferroni test	RA = P = S					
Cohen's d	RA vs. S = -.02 ^a		P vs. S = -.39 ^b			
Poor decoders	36.33 (4.6)	28.20 (6.7)	28.22 (6.0)			
95% CI ^d	33.3–39.3	24.1–32.4	24.3–32.1			
Percentile rank	62	40	40			
N	9	10	9			
Bonferroni	RA > P = S					
Cohen's d	RA vs. S = 1.53 ^a		P vs. S = -.03 ^b			

^aEffect size = M of Read Aloud (RA) minus M of Standard (S) divided by pooled SD. ^bEffect size = M of Pacing (P) minus M of Standard (S) divided by pooled SD. ^cDA = Decoding ability; DxT = interaction between DA and TC; TC = Test condition. ^dCI = 95% confidence interval flanking reading comprehension means of poor decoders.

BETTER WITH PARTIAL READ ALOUD ACCOMMODATIONS



[WHITEPAPER]

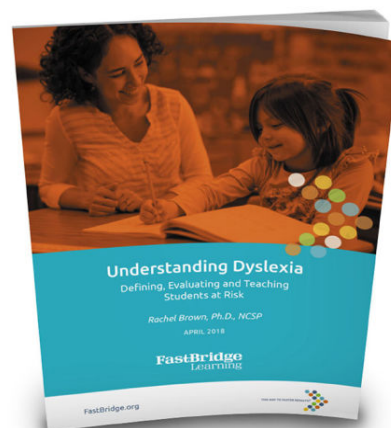
Understanding Dyslexia: Defining, Evaluating and Teaching Students at Risk

Dyslexia is top-of-mind among educators today as more and more states pass legislation to improve screening and support for students with symptoms of dyslexia.

Read this whitepaper to better understand, identify and help these students overcome their learning difficulties and stay on track with their peers.

You'll learn:

- How to define dyslexia
- Common myths surrounding dyslexia
- The importance of early screening for dyslexia
- Steps for diagnostic evaluation
- Effective teaching methods for students with dyslexia



DOWNLOAD WHITEPAPER

<https://go.fastbridge.org/junda1>

The researcher concluded:

"According to the Simple View of Reading, valid tests of reading comprehension must involve both decoding ability and linguistic comprehension. Whereas results of full read-aloud studies have been mixed, our findings were clear and showed that a partial read-aloud accommodation benefited only the poor decoders, not the average readers, thus validating this as an effective test accommodation."

The study will be a welcome one for students and their parents who need to advocate for partial read-aloud accommodations on classroom and standardized tests. An addition that we would make to partial read-aloud accommodations is **technical vocabulary** which is especially important for subjects such as science, technology, social studies, and foreign language. Long words are especially difficult for dyslexic students to read.

Addressing accommodations on state tests is especially important as some states have made laws that required that end of year course assessments make up as much as 30% of a student's overall grade! (e.g. Florida State Bill 1076).

What can be a more complicated issue is determining whether a severely dyslexic student should be granted read aloud accommodations even for tests that are meant to assess reading comprehension.

In our experience, many of the most resistant dyslexic learners have significant visual, auditory, or memory issues that make them effectively print-blind. If the blind can receive accommodations through audio, text-to-speech, or a human reader, why not the severely dyslexic?

If the severely dyslexic student masters all of the informational content of high school, should she or he be denied a diploma because mandatory tests require reading by sight? At the same time, though, it's not hard to imagine negative consequences if reading comprehension goals are abandoned all together.

For the present, the best situation seems to be reviewing the need for

Helping Children, Teens, Adults, and Families Realize Their Potential

assessment | consultation | treatment

Summit Center specializes in helping students with complex learning profiles and differences, including kids who may be gifted, and those who might be both gifted and have challenges (known as twice exceptional or 2e). We provide formal evaluations of strengths and challenges and offer specific strategies and recommendations to guide growth and development.



**SUMMIT
CENTER**

Reach New Heights

San Francisco Bay Area 925-939-7500

Los Angeles Area 310-478-6505

www.summitcenter.us



"I had no idea I could like school! At Summit Center, I found out I was both dyslexic and smart... and I think differently. They gave me the tools I need to succeed."

accommodations on a case-by-case basis.

Another factor about high stakes exams on computer for dyslexic students is that there is some evidence that is also harder for dyslexic students to comprehend text written on screen:

From a **study** of 72 10th graders, Professor Anne Mangen and her colleagues found " Students with the weakest phonic skills score noticeably lower on the reading comprehension test when they read text on screen, while the strong readers' performances are not influenced by the medium they used for reading."

What is clear is that great care must be taken when deciding accommodations for dyslexic students - especially when high-stakes tests are probably invested with too much significance, affecting decisions such as admission to higher education, awarding of scholarships, or grade retention. Parent, students, teachers, IEP teams, and other advocates should be vigilant about the need for accommodations; it is far too common that students fail to receive accommodations that would help them succeed to the best of their ability.



READERPEN™

LET STUDENTS READ ON THEIR OWN!



Increases independence & confidence



Multiple built in dictionaries including Primary



Enhances comprehension & literacy skills



Curriculum is made available to all



No more time stretched parents or teachers

\$250.00
ex TAX and shipping



**GREAT
FOR USE
AT HOME
& SCHOOL**

FREE 30-DAY TRIAL

AVAILABLE TO SCHOOLS AND EDUCATION PROFESSIONALS

JOIN OUR WEBINARS

Sign up for a
FREE webinar

Scan here for more information!



EXAMREADER™



No dictionary or storage, making it ideal for exams and testing.
See examreader.com for more information

Add to IEP or 504 Plan as Text to Speech

SCHOOL DISTRICT DYSLEXIA THERAPIST

"With the help of the C-Pen Reader, my students can now go to the library and choose a book of interest that they truly enjoy reading. This has broadened their interest levels, vocabulary and exposure to fiction and nonfiction books. Before the ReaderPen, my students were limited to books at lower lexile and independent reading levels. For this reason many of them were bored by the content or frustrated by the sheer act of reading."

www.scanningpens.com | www.readerpen.com

**#succeed
with
dyslexia**

UNDERSTANDING THE **WHY** OF MATH: VISUAL REPRESENTATIONS

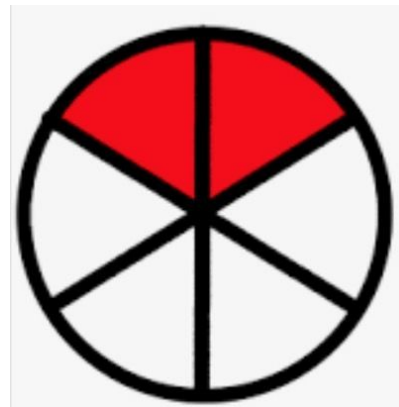
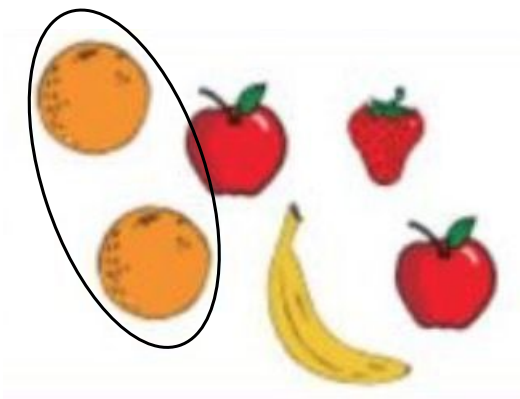
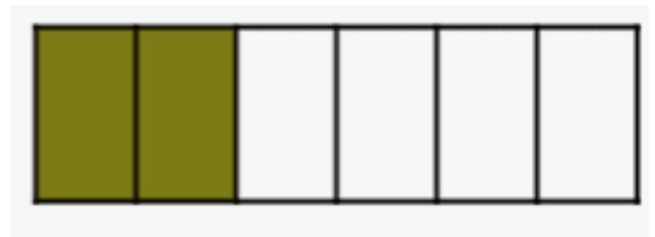
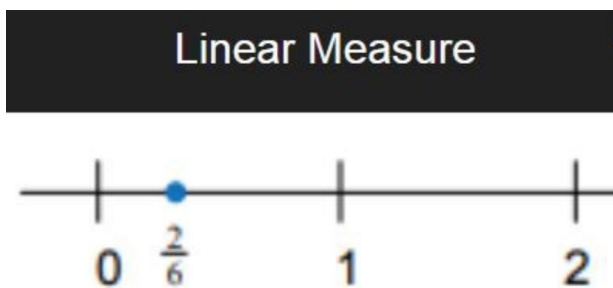
In the early grades, one of the greatest challenges for dyslexic students in mathematics is performing various math calculations and procedures when the math is taught with an emphasis on memorization and modeling procedures rather than *understanding*.

From Mark Chubb's math blog, [Thinking Mathematically](#):

"If we want our students to see that math is visual, then we need to help them mathematize their lived worlds...

Think of as many ways to show the fraction $2/6$ s.

Here are some common representations:



DISCOVER YOUR LEARNING DISABILITY



LEARN MORE

CHURCHILL CENTER & SCHOOL

National Leader in Learning Disabilities

As a Wilson® Partner School, Churchill provides research and evidence based instruction for students who have been unable to learn to read and spell with other teaching strategies.

We empower bright children to thrive, *no matter how they learn!*

churchillstl.org 314.997.4343

MATH

When Mark surveyed a group of primary school teachers about how they show the meaning of $2/6$, the overwhelming number of teachers said that they either represented it as a quotient (2 divided into 6) or part to whole model like a pie chart or colored bars.



For many students, using a quotient as a definition is harder to grasp than visual models that could be presented.

Mark also discussed Liping Ma's research which showed that US teachers were much less likely to be able to suggest a story for a fraction problem such as $1\frac{3}{4}$ divided by $1/2$.

How would you solve a problem like this one: $1\frac{3}{4} \div \frac{1}{2} =$

What would you say is a good story or model for $1\frac{3}{4} \div \frac{1}{2} =$

Response	US Teachers	Chinese Teachers
Computation:		
A Correct Algorithm	52%	100%
Incomplete to Wrong Answer	48%	0%
Story:		
At least one Story	4%	90%
No or Incorrect Story	96%	10%

MATH

How did you do?

One example could be 1 and $\frac{3}{4}$ donuts left over after a party split between two friends, but other examples could consist of thinking about how many $\frac{1}{2}$'s are in $1\frac{3}{4}$. For example, one math teacher in Liping's study suggested $1\frac{3}{4}$ grams of sugar that was wrapped into $\frac{1}{2}$ gram packages.

If you're like the average US math teacher in Liping's study, you had trouble thinking about a concrete real world example. If you thought of one, it was probably a part to whole example using round food (this is how the majority of us were taught).

For many dyslexic students, it is especially important to teach math procedures and algorithms by having real world example so that they can understand why certain steps are performed during the problem solving process and **why** certain answers are correct.

PREMIUM ISSUE FORTY-THREE 2019

Dyslexic Advantage

PREMIUM MAGAZINE



TECH GUIDE
2019-2020

APPS & TECHNOLOGY REVIEW FOR KIDS, COLLEGE,
WORKPLACE, & LIFE

PREMIUM

UPCOMING ISSUE



OUR BIGGEST TECH GUIDE EVER!

- All Ages
- Best Apps & Tech for School, Work, and Life!

SUBSCRIBE

It's just
\$5 per month!

Set Realistic but Ambitious Goals for Students with Dyslexia Next Year

Get students working toward reading proficiency from day one! Learn how to set attainable goals and monitor students' progress.

READ ARTICLE

<https://go.fastbridge.org/mayda2>



FastBridge
Learning



maths explained

Video tutorials to help with dyscalculia and mathematical learning difficulties

Why Maths Explained?



Devised and delivered by an internationally regarded expert in the field of maths learning difficulties.



The structure of the programme and the principles that drive it are based on research from around the world on how people learn, and fail to learn, maths.



Each video uses carefully designed visual images, matched to the relevant maths vocabulary and concepts in order to enhance understanding.



The videos develop an understanding of maths by addressing and circumventing the barriers that handicap learning. They are about using that understanding to support memory.

Visual images and building understanding

Linking images to symbols/numbers



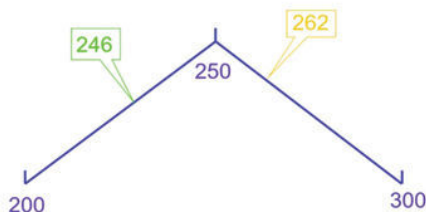
$$\begin{aligned} 5 + 5 &= 10 \\ 2 \times 5 &= 10 \\ 10 \div 2 &= 5 \end{aligned}$$

Reversing



$$\begin{aligned} 10 - 1 &= 9 \\ 9 + 1 &= 10 \end{aligned}$$

Estimating: to the nearest hundred



CLICK THIS AD TO WATCH OUR SAMPLE VIDEO TO SEE OUR APPROACH



CONGRATS ARTSHARE WINNERS

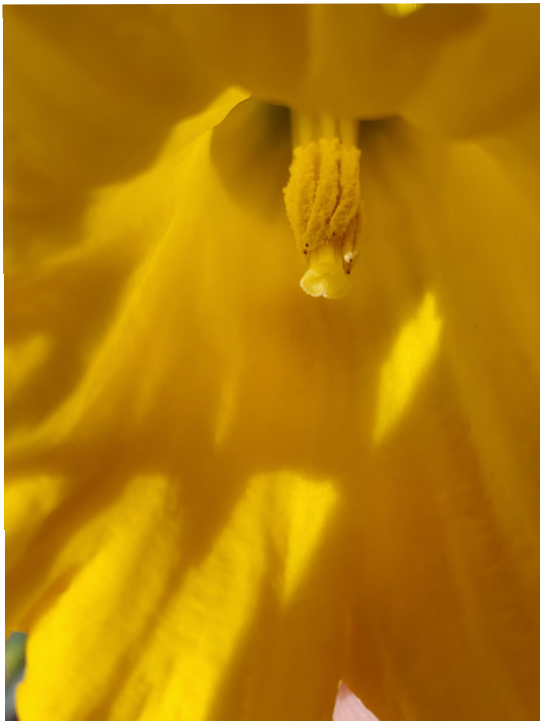
Ian (13) of Juneau AK and Lauren (12) of Elyria OH. Here are their beautiful photos. They won Clark James Mishler's beautiful Alaska book! We have 4 more to give away. Send us your great shots!



Snow On, by Ian.



Spring Calves by Lauren. "Every spring I help our family with the newborn calves on our farm."



Spring Daffodils by Lauren.
"I love taking pictures of the flowers in my mom's garden."



Spring! by Lauren "I love this picture because it shows how the grass is getting green in the spring, but it also has the old sticks in the yard that were left from fall."



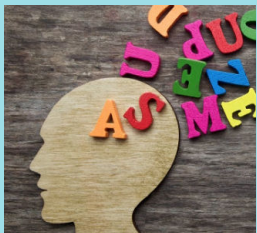
What the Parents of Dyslexic Kids are Teaching Schools about Literacy

PBS News Hour



Georgia Governor Signs Dyslexia Screening Bill

Atlanta-Journal Constitution



School Failings Leave Dyslexic Pupils Feeling 'stupid, unvalued, and guilty

TES.com



How Misuse of the 40 Book Challenge Made My Kid Hate Reading and How I Pushed Back

Teen Library Toolbox



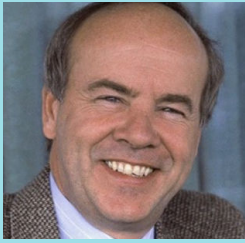
Senator Bill Cassidy Blasts the NCIL Dyslexia Report

Senator Bill Cassidy Press Release



Alabama to Hold Back 3rd Graders Who Don't Read on Grade Level

AL.com



Tribute to comedian Tim Conway (he's dyslexic) of the Carol Burnett Show

NPR



Montana has it's first dyslexia law

Dyslegia



International Schools (outside the US) that support learning differences - US State Dept List

Dyslexic Advantage

DISCOVER YOUR
LEARNING
DISABILITY

CHURCHILL
CENTER & SCHOOL
National Leader in Learning Disabilities

Four decades ago, Churchill was founded as a place of hope for students and families, a source of knowledge for professionals and a point of pride for the community. Churchill's mission is to empower students with learning disabilities gain the *strategies and confidence they need to succeed, becoming advocates for their future!*

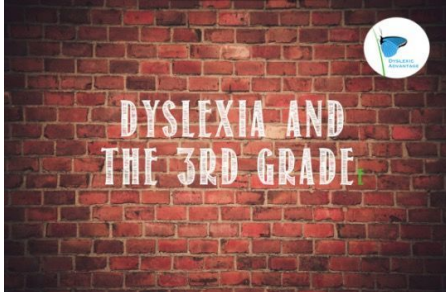
LEARN MORE



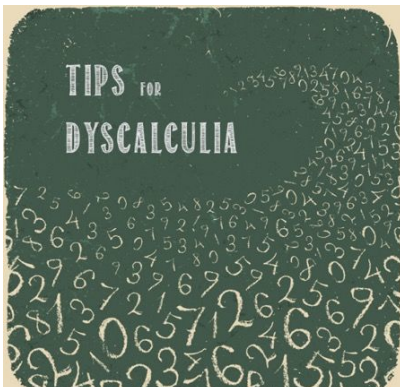
Don't Forget - Lots More to Read on the Dyslexic Advantage Blog



ADA GUIDELINES FOR SCHOOL AND WORK



DYSLEXIA & THE 3RD GRADE WALL



TOP TIPS FOR SUPPORTING A STUDENT WITH DYSCALCULIA - with STEVE CHINN



"Imagine the impossible and do it."

- Paul MacCready, Engineer of the Century