

October Ed and Tech

National Geographic Society, with support from the Paul G. Allen Family Foundation, officially launches the **Slingshot Challenge**: a new, global video challenge designed to amplify the voices and ideas of the next generation of planet protectors. Participants will be asked to create a one-minute video outlining an innovative solution to a current environmental issue that they're passionate about. Winning videos will be selected by a panel of judges to receive cash prizes, as well as an invitation to the iconic National Geographic Explorers Festival in Washington, D.C. Students ages 13-18 and educators looking for ways to engage young people around environmental action are encouraged to [sign up on our website](#). Participation is free!

STEMy stuff

[Purdue University Kids STEM Degree](#)

Paul Hamilton (@PaulHamilton8) tweeted at 1:47 PM on Mon, Oct 10, 2022:

NEW: There was a bit of ❤️ for the #AR learning journey for #HigherEd so thought I would do a Primary/Elementary School one. 'Everything works somewhere, nothing works everywhere' Dylan Wiliam. Where might #aroniPad work in the primary school? @AppleEDU @Usingtechbetter
<https://t.co/qNBaPa5kNQ>

(https://twitter.com/PaulHamilton8/status/1579362989341544448?t=TR3fJn1-BmuMn_rEPK1uxQ&s=03)

Eduporium (@Eduporium) In terms of #STEAM learning, teachers can combine reading and writing experiences with kinesthetic experiences and encourage students to jot down their thoughts, emotions, challenges, or whatever else they'd like. #21stedchat #teachertwitter #STEM

<https://t.co/estDIM5N6x>

(<https://twitter.com/Eduporium/status/1578952182568976384?t=ne5QnoV2LQk9oowDHAyCyg&s=03>)

WeAreTeachers 20 Best Multiplication Songs To Help Kids Practice Math Facts <https://t.co/OQNNNXIPoP>

(<https://twitter.com/WeAreTeachers/status/1580423090768850944?t=bpVXGaj32jalJ8pEu6Z0uA&s=03>)

Hey 4th, 5th and 6th grade teachers! We added addition, subtraction, multiplication and division of fractions to #99mathgame 🇺🇸 MORE FRACTIONS! <https://t.co/vMkE5zhfSo>

(<https://twitter.com/99mathgame/status/1578317162204123136?t=RaTUQpygHD2bMIHmQz2fdw&s=03>)

[STEAM lesson planning tool](#)

**** All STREAM challenges are directly tied to a real-world STREAM career. The project should include a brief introduction to this career in an effort to expose students to authentic applications of STREAM concepts.

Architect Challenge: Design and construct a functional kinetic sculpture that illustrates the concept of balanced gravitational forces.	
Science	The central idea of this challenge ties into grade level science content. <i>3-PS2-1 Plan and conduct an investigation to provide evidence of the effects of balanced and unbalanced forces on the motion of an object.</i>
Technology	Students will use the app Sketches School to plan their team's prototype. Students will use the app Clips to record a video of their sculpture in motion and add filters, text, stickers, and music to help illustrate the concept of balanced gravitational forces.
Reading	Students will listen to a picture book read aloud (Mr. Ferris' Wheel) and complete associated response activity as a whole class (fill out Engineering Design Cycle graphic organizer) Students will read a nonfiction article that explains the focus career (Architect) in small groups and complete associated response activity in that small group (Email Design Planner)
Engineering	(Backstory ties into Mr. Ferris' Wheel) Acting as architects, students have been tasked by the World's Fair Committee to design and build a prototype of a sculpture that is both aesthetically pleasing and structurally sound. This sculpture will be one of the main art installations at the upcoming World's Fair. Students will adhere to constraints placed on their structures. For example, their structure may be constrained to a certain perimeter, required to have a certain number of levels, or to be made with only certain provided materials. Students will design and build a prototype, then conduct basic tests to determine stability. Students will have continuous opportunities to modify their prototype.
Art	Students will research the artist Alexander Calder and the concept of mobiles (kinetic sculptures). Students will view several examples of his work through provided images and videos, as well as mobiles (kinetic sculptures) designed by various other artists. Students will plan, construct, and decorate (paint/markers/crayons) their prototype using provided materials.
Mathematics	Students will calculate the perimeter and area of their sculpture base. <i>3.MD.7b Multiply side lengths to find areas of rectangles with whole-number side lengths in the context of solving real world and mathematical problems, and represent whole-number products as rectangular areas in mathematical reasoning.</i> <i>3.MD.8 Solve real world and mathematical problems involving perimeters of polygons, including finding the perimeter given the side lengths, finding an unknown side length, and exhibiting rectangles with the same perimeter and different areas or with the same area and different perimeters.</i> Students will identify the shape of their base using all applicable names (example: a rectangle would also qualify as a quadrilateral, etc) <i>3.G.1 Understand that shapes in different categories (e.g., rhombuses, rectangles, and others) may share attributes (e.g., having four sides), and that the shared attributes can define a larger category (e.g., quadrilaterals). Recognize rhombuses, rectangles, and squares as examples of quadrilaterals, and draw examples of quadrilaterals that do not belong to any of these subcategories.</i>

TCEA 🎃 Did you get your **FREE** membership ?

Wish you had a list of amazing interactive #science tools? Explore these periodic tables of elements that help make science interactive!

<https://t.co/aMBN1ml1sw> @mguhlin

#scichat #teachertwitter #teachingtools <https://t.co/iiQXzsoXzk>

https://twitter.com/TCEA/status/1583073107547684865?t=K_PBU51_98E25DhxfqysIA&s=03

Carly And Adam (@carlyandadam)

Students learn about magnetism as they explore how magnets attract and repel with our latest 3rd grade NGSS challenge.

STEM Teachers Club Members this challenge will be available soon on the membership website.

<https://t.co/owvaisVJ6N> <https://t.co/sT3bZZiQTH>

https://twitter.com/carlyandadam/status/1582418385236684800?t=w0CDGu0bUVcXU6lxG_qN4A&s=03

Lauren Kelly, M.Ed. (@KellysSTEMkids) This is an great image to help explain STEM to someone. STEM is opened ended and student-led. They are being critical thinkers and while being creative. <https://t.co/UhtmQm6OuU>

<https://twitter.com/KellysSTEMkids/status/1583932022166519808?t=W1R5v7fIL184DYdH5xSjNQ&s=03>

Thermal Energy Design Challenge

@kenneedyyyyyy

Complete tasks at each of the national parks.

Earn Supply parts in order to build a cup.

Build a cup that can withstand Thermal energy.

#plsdproud @AlesiaGillison @DrKaraJackson @PlsdSupt @lkellyccs @KauffeldMichael <https://t.co/wV1pYSMAhz>

(<https://twitter.com/mrshowell24/status/1583225548179787777?t=QH5dE-b1I5VfXidtd1DalA&s=03>)

ExploreLearning (@ExploreLearning) Popcorn kernels aren't just for popping, they're also for dancing! Check out this fun and easy experiment to teach kids how chemical reactions occur with the ExploreLearning Science4Us Dancing Kernels experiment! <https://t.co/oeqwvzhMjb>

<https://t.co/8XKgFLyii4>

(https://twitter.com/ExploreLearning/status/1582974930685022208?t=1EQzKKJ_ggW1dMphFYaQPw&s=03)

TCEA 🎃 Join for *FREE* this week! 🎃

The Power of Numberless Word Problems

<https://t.co/x8ZdmnWk3Q> via Mix and #Math

#learning #educhat #mathchat <https://t.co/V6pYO6KLUG>

(<https://twitter.com/TCEA/status/1582975238135894016?t=1Q2WcoyJeiH6xSvspkRYSQ&s=03>)

Sarah Carter (@mathequalslove) Today's Dot Plot of the Day: How many hours did you sleep last night? Round to the nearest hour.

<https://t.co/9PdcA7JRYI>

(<https://twitter.com/mathequalslove/status/1582502384416468993?t=8nnfFtWlaKC6UJuoxcKxVQ&s=03>)

PE ARTS SEL

[Say goodbye to IDK.](#)

[Does tech exist in PE? Of course, it does!](#)

TeacherGoals (@teachergoals) Music matters! 🎵 Unknown <https://t.co/0pNDwiq9mu>

(<https://twitter.com/teachergoals/status/1578804709644652544?t=PpEZ6XakvB-w8iH7O6C31g&s=03>)

Todd Finley (@finleyt) 18 Tips for building strong relationships with students 😊 | Brain Blast

#studentengagement #edchat #k12 #highschool #elemchat #students #teacherstudent #ukedchat #edleadership <https://t.co/QfIOQCplw4>

(<https://twitter.com/finleyt/status/1579183090723086336?t=UopewtQBfGmmTM-6rBKc4A&s=03>)

Brad Weinstein (@WeinsteinEdu) Behavior must be learned and taught. 🧠

📷 @kwiens62 <https://t.co/FSGKZZKyD0>

(<https://twitter.com/WeinsteinEdu/status/1578754771996971008?t=W8JYJnqpgnHT6XEyrq8H4w&s=03>)

Chris Cline (@chrisclinewcps) I don't necessarily agree. Students cannot live in "productive struggle" phase. There has to be some modeling, then gradual releases with constant check for understandings. This could look different in all classes. I've always shared the poster below for all teachers. #wcpsmd

<https://t.co/hPEL1X14KH>

(https://twitter.com/chrisclinewcp/status/1581633953811009536?t=z4oTy_FqeeDKNMFVW5IHDg&s=03)

ONTSpecialNeeds (@ONTSpecialNeeds) For all my awesome teachers that love things in a beautiful graphic, here is de-escalation strategies for meltdowns:

<https://t.co/7Rh02DPS2t>

(<https://twitter.com/ONTSpecialNeeds/status/1578889476499066880?t=Zh0r8WfcDbrgWrva0bNF4A&s=03>)

How to change mindsets when teaching multilingual students.

#Sketchnote by @ValentinaESL <https://t.co/mz2uhWbUmP>

(<https://twitter.com/MindShiftKQED/status/1581259846040449024?t=gunB9vHad5DB9E5URhQBIQ&s=03>)

[What to say instead of No Se/ Idont know Spanish version](#)

[Things to remember poster](#)

ELA

Joachim Horn (@joachorn) Love the article about "Teaching ELA through STEAM & Coding"!

<https://t.co/68XGmfHeAM>

(https://twitter.com/joachorn/status/1584532566761431041?t=senziA53R_fYkdfMT88bo_A&s=03)

I can not say enough good things about Jess5th's work. Check out this new unit she is sharing.

A few people asked what mentor texts I use in our unit, here is the whole unit plan. The mentor texts are listed out in there: <https://t.co/o76J2intAd>

(<https://twitter.com/Jess5th/status/1581643916902006785?t=BQ-1nYH9XqkpgUd1-fmaw&s=03>)

@Lyricalswordz & I created these classroom-ready resources on novels by Native authors--There There by Tommy Orange, The Marrow Thieves by Cherie

Dimaline, and The Only Good Indians by Stephen Graham Jones. Please use & share! 😊📖 <https://t.co/qtsrmRpz7S>

(https://twitter.com/JoelRGarza/status/1579483304318799872?t=hmYUSW_NU6uXR-Ot-DWdpg&s=03)

[Writing Feedback](#) from Paige Daniels

[How to ask great questions. Understand pupils' learning & support their oracy.](#)

Education Technology (@EduTweetTech) How to Spot Fake News- Classroom Poster <https://t.co/eSOMkEU4Cy> <https://t.co/RP9My5gLqe>

(<https://twitter.com/EduTweetTech/status/1579265721628258305?t=r5GUnAprCLCa2TjbFmaiGA&s=03>)

Eduporium (@Eduporium) In terms of #STEAM learning, teachers can combine reading and writing experiences with kinesthetic experiences and encourage students to jot down their thoughts, emotions, challenges, or whatever else they'd like. #21stedchat #teachertwitter #STEM

<https://t.co/estDIM5N6x>

(<https://twitter.com/Eduporium/status/1578952182568976384?t=ne5QnoV2LQk9oowDHAyCyg&s=03>)

Stephanie Conklin (@ConklinSteph) We took the most missed terms from @quizizz FAC on vocabulary for Am Rev...student T was given the Repuzzler @eduprotocols on Thursday and created these! QR code gives letters of another vocabulary term <https://t.co/5HXIIHA2k9>

(https://twitter.com/ConklinSteph/status/1579991620925427712?t=qWhREexH0H0dAXDrPjN_3g&s=03)

[Creative Writing resources from Eric Curts](#)

[Year-long Google Doc where S's reflect on their process AND results for each writing piece to create a "Writing Story" for the year.](#)

Jennifer Williams #ClimateActionEdu {FREE} Digital Literacy Posters for the classroom! Download them here: <https://t.co/2jLBFG7NYU>
#MediaLiteracyWeek #STEAmbassador #ad @ISTEofficial #TeachBoldly <https://t.co/yBomlcpUQt>
(https://twitter.com/JenWilliamsEdu/status/1585800799627747328?t=ZGqkllrH_B5PNcTmbWbG6g&s=03)

Ditch That Textbook (@DitchThatTxbk)

The Pixar Story Structure is great for recapping learning, creating new ideas, and presenting group work.
Get this FREE template for students: <https://t.co/V1z9tD8T3g> <https://t.co/NOWqLitriO>

Debbie Reese (tribally enrolled, Nambé Pueblo) (@debreese)

Are you planning to use books about Native people in November (usually declared as Native Heritage month)?
If the answer is yes, please select ones by Native writers. With those books, you can push back on so many misconceptions!
(<https://twitter.com/debreese/status/1582129143138775040?t=ARuoJBWkLY0bm8OxUT-0wA&s=03>)

Jessica Kirkland (@jkirk__)

The kids are drafting their personal narratives of a food memory and today I did a mini lesson on ways they could open their narrative and modeled two options of my own: opening by describing the person OR the place I connect with the food and how each choice shaped tone/story:
<https://t.co/7C7mm8SBPy>
(https://twitter.com/jkirk_/status/1582473864554360832?t=qISbHJO-zaOtAaGUNIWK4g&s=03)

Technology Tools

Bethany Jarmul (@BethanyJarmul) 10 FREE websites that I use as a writer and how I use them.
(https://twitter.com/BethanyJarmul/status/1579130859231117317?t=fjQ2n5Cj9bKSG_0QDIZd6g&s=03)

Misty Kluesner (@MistyKluesner) My second graders were self-directed #creators , each working at their own pace and helping one another too!
#AdobeEduCreative <https://t.co/Qg4vxmxo00>
(<https://twitter.com/MistyKluesner/status/1583203887976046592?t=UENt6Sn4KpOXXDhSBE6kVA&s=03>)

Halo AR by LightUp Wonderful to be named among such great company! Thanks @JaimeDonally, @ISTE #ARVRinEDU #AugmentedReality #ARoniPad
<https://t.co/dQ4k4QLiZ9> (https://twitter.com/lightup/status/1583248821441601536?t=MaFlcHc45ydwj-44_rSCbg&s=03)

80 ready to use templates on SarahKiefer's co-created site "Templates for Teachers" (<https://www.templatesforteachers.com/>)
they are all free & ready for use & modification

[Trading card template](#)

Social Studies

[Here are 22 Google Slides for the 22 school days of #hispanicheritagemonth; all linked to stories on @epic4kids all written by, illustrated by, or about members of the #hispanic and #latinx community. As always, remember to vet stories before sharing.](#)

[Topographic maps and photos of over 1.25 million landmarks in the United States including: Water, Land, Man-made](#)

Stephanie Howell (@mrshowell24)

US President @eduprotocols <https://t.co/MutxNbZC30>

(https://twitter.com/mrshowell24/status/1579228712108703744?t=A5CActE8JauLeezUGnj_Gw&s=03)

[National Parks Hidden Gems](#)

Dr. Joanne Freeman (@jbf1755) For those asking for a link to my free online American Revolution course, it's here:

<https://t.co/K8a0mknBHZ>

(<https://twitter.com/jbf1755/status/1578953598951911424?t=7JlpRsL53s1ot-ExYDdv5A&s=03>)

Trying to find ways to engage Ss in text while making them access higher levels of thinking & creativity. Treaty of Versailles Read and Roll with reading resources and more

https://twitter.com/JillWebs/status/1579957498047778816?s=20&t=0hY0XYijJ_nGaR_CbG6rg

Tom Rogers (@RogersHistory) Very cool to show students how borders have changed over time... @TMHistoryIcons <https://t.co/zFT9QAUNkW>

(https://twitter.com/RogersHistory/status/1581610302856081410?t=z8QmXemuCncysHZ-Gq5_VQ&s=03)

iCivics (@icivics) Order up! People's Pie is back. Teach students about balancing the federal budget with this interactive game. <https://t.co/bQMtNRvom7>

#PeoplesPie <https://t.co/vmyreJcO94>

(<https://twitter.com/icivics/status/1581344209558437888?t=Ntl6nO9TXe04KdSzcJtJ0A&s=03>)

[Social Studies vocab throwdown](#)

Dave McIntire (@d_mcintire)

#VisualThinkingStrategies using @americanart pieces. One event: #WestwardExpansion. Two viewpoints. My young @PemHillSchool historians did a great job wrestling with both. <https://t.co/tstkPatkH4>

(https://twitter.com/d_mcintire/status/1582420660718297088?t=Ai9ZkbFEQcibwWtEYCEOgg&s=03)

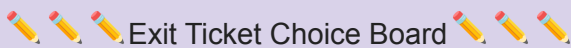

[5 Principles of Deliberate Practice 'aka' improving teacher expertise.](#)

TCEA If you follow the 5E Model for planning and add technology to it, you end up with a very powerful way to bring the curriculum to life for all students.
<https://t.co/vFHSIr5bPY> <https://t.co/bVCK9aELZc>
(https://twitter.com/TCEA/status/1578257064593326080?t=o7SP_W-YAywzZq2v2Kdltw&s=03)

Need closure activities? Here are 10 ideas from @finleyt 🧠🚀 #edutwitter #teaching #k12 <https://t.co/pUC4A3MdGt>
(<https://twitter.com/TCEA/status/1579638929669918721?t=aIRS-zyWUljCKW4WmosQfg&s=03>)

Dr. Katie Ann Top story: A Simple Process and Template for Student Podcasting • TechNotes Blog <https://t.co/y8sjrf9g8d>, see more <https://t.co/z4UkKEpvEK>
(https://twitter.com/KatieAnn_76/status/1580436288947113984?t=npBJYOXYgzbw-wQ49eF4Rg&s=03)

Randy Swift (@RandySwift9) Those who do the talking, do the learning! <https://t.co/a8fsQi7QJM>
(<https://twitter.com/RandySwift9/status/1579900078096990208?t=4KfARZos7w0r3LD1uclK6A&s=03>)

 Exit Ticket Choice Board 
<https://t.co/Q2ry4BKD08> via Learning with Lauren <https://t.co/l8P1H9KwUZ> #edtech #teachertwitter #edu <https://t.co/mqOah5RLFc>
(<https://twitter.com/TCEA/status/1579986970566045696?t=-oAFhnVBmjDCZk7rXVvuzg&s=03>)

Peps 🎓 (@PepsMccrea) A few weeks ago, I published a thread on 'Backwards Planning'.
@MrGoodwin23 then took that thread and fed it into his magical visual makeover machine. Feast your eyes on WHAT CAME OUT 🔄
<https://t.co/D1qFv9I6Ty> (https://twitter.com/PepsMccrea/status/1582068990108917761?t=7P2opduCCVXnF_PcVbLvPQ&s=03)

Darrell Wakelam (@DarrellWakelam)
Looking for Halloween and 'Day of the Dead' inspiration? . . . all of these projects and more are free here . . . <https://t.co/STUkjKqYZj> I use cheap, accessible materials and in most cases these can easily be recycled again afterwards.
"extraordinary art from ordinary things" <https://t.co/SlazTa93hu>
(<https://twitter.com/DarrellWakelam/status/1585529971082252288?t=VwquRtctxTVtC3YCrVN2VA&s=03>)

m a r i a | mariagalanis.eth (@mariagalanis) If you're offering collaborative group work opportunities to students, these Possible Group Roles may help highlight student's individual strengths, structure the work, help the with overall success for everyone involved, etc. <https://t.co/1XFe9S47M1>
(https://twitter.com/mariagalanis/status/1461052487704719365?t=RsUHqXaTH2nVMgA_2yoRaQ&s=03)

Mr "Von Miller is a Bill" Allard (@MrAllardSS)
Loving this #EDUProtocols remix from @moler3031 Ss analyzed doc and organized there thoughts in 15 mins! Might add using this to write there paragraphs next time. <https://t.co/OrvJTH61Mq> (<https://twitter.com/MrAllardSS/status/1583087001720717312?t=ISDV0f-JnLYvsiOen8ef1g&s=03>)

Evan Robb (@ERobbPrincipal) What Are The Kinds Of Questions That Help Students See Themselves As Learners? <https://t.co/cCPskU9YmK>
(<https://twitter.com/ERobbPrincipal/status/1583047654686089216?t=LsYLmsd41JqdCMNiBxJ9bw&s=03>)

[Noticing things from videos and notetaking](#)