

# Life-long Learning Begins Here

# **STEAM Resources for Math Connections**

GPB Education • PBS Learning Media

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# **GPB Education**

www.gpb.org/education @GPBEducation

GPB provides unique, no-cost digital resources and training for all Georgia educators and students.

# Georgia Home Classroom

https://www.gpb.org/education/learn

GPB, in partnership with the Georgia Department of Education (GaDOE), is offering broadcast programming and accompanying digital resources that adhere to Georgia's state standards.

## **GPB Education Webinars**

https://www.gpb.org/education/professional-development/online-training

Archive of 30+ on-demand webinars for detailed professional learning.

# **Digital Learning Newsletter**

Sign up for GPB Education's daily e-learning newsletter for free apps. activity ideas and lesson

Sent directly to your mailbox at 8 AM ET every weekday. Complete with resources and learning opportunities for both parents and PreK-12 educators, this newsletter aims to offer something useful for everyone.

#### MATH CONNECTIONS

CONTENT CHANNELS: Math Connections & Math in Context

# **TEACHING STRATEGIES**

SOS Top Ten: Developing Mathematical Thinking

https://teachers.discoveryeducation.com/resource/sos-top-ten-stem-thinking/

Instructional ideas help develop process and communication skills to bolster students' mathematical thinking.

#### STEM STRATEGIES THAT WORK

https://teachers.discoveryeducation.com/stem-strategies-that-work/

Incorporate STEM culture in meaningful, effective, and practical ways.

# DEBUGGING THE PROBLEM

https://teachers.discoveryeducation.com/resource/stem-strategies-that-work-debugging-the-problem/

Students are given multiple problems and challenged to find mistakes made by other people, making the practice less personal.

## MATH FOUNDATIONS

PEG + CAT

https://gpb.pbslearningmedia.org/collection/peg-cat/

In every episode, Peg and Cat find themselves in the middle of a wacky word problem they have to solve to get out of trouble.

#### THINK MATH

https://gpb.pbslearningmedia.org/collection/thinkmath/

Provide real-world connections, opportunities to think more deeply about math, and ways to use logic and computation to solve problems.

#### **MATH GAMES**

https://gpb.pbslearningmedia.org/collection/wpsu-math-games/

#### **INTERACTIVE LESSONS**

https://gpb.pbslearningmedia.org/search/?q=&selected\_facet=subject:1184&selected\_facet=media\_type:Interactive%20Lesson\_

Each lesson features engagement and assessment activities that can be assigned to individual students, pairs, or small groups for self-paced work. Student work is saved and can be viewed online by teachers.

# PBS LearningMedia

gpb.pbslearningmedia.org

PBS LearningMedia offers a searchable repository of digital collections (150K +) based on PBS shows. All resources can be streamed, shared, saved, and curated for an efficient and engaging instructional experience.

# **MATH APPLICATIONS**

#### THE LOWDOWN

https://gpb.pbslearningmedia.org/collection/everyday-math/

Discover how math helps explain current issues like the gender-wage gap, credit card debt, rising obesity rates, and more.

#### THE MAJESTY OF MUSIC AND MATH

https://gpb.pbslearningmedia.org/collection/majesty-music-math-collection/

Multi-media interactive resource that explores the interconnectedness of music and mathematics for elementary, middle, high school students.

#### CHROME MUSIC LAB

https://musiclab.chromeexperiments.com/Experiments

Teachers use Chrome Music Lab as a tool in their classrooms to explore music and its connections to science, math, art, and more.

# **DISCOVER DATA**

https://www.discoverdatainschool.org/educators

Connects students to careers, activities, and data experts to inspire their understanding of how data is used to innovate industries worldwide.

#### STUDENT INTERACTIVE | DATA IN MY DAY

https://www.discoverdatainschool.org/sites/default/files/nielsen-1-1/

Follow this self-paced module through a typical day to discover where and how data and data science play a part in everyday occurrences.

#### FOOTBALL BY THE NUMBERS

https://footballbythenumbers.discoveryeducation.com

Engaging educational program designed to harness students' love for football to engage them in key math and science concepts.

#### INTERACTIVE

 $\frac{https://footballbythenumbers.discoveryeducation.com/sites/default/files/interactive/index.html}{(interactive/index.html} \\$ 

## **IGNITE MY FUTURE IN SCHOOL**

https://www.ignitemyfutureinschool.org/resources/curriculum

Dive into some of humanity's greatest collective questions and connect them to real-world solutions being applied in a myriad of industries.

#### GLOBAL LAB COLLABORATIVE PROJECTS

https://globallab.org/en/#.XxHIni2z0Wo

Resources for building background knowledge, authentic investigations with collaborative data sets, and STEM learning extensions.

#### EXPLORE STEM CAREERS

https://globallab.org/en/project/cover/88dd97a9-a8da-48ae-a81a-dcacd0f16faa.en.html?profile=de#.XqxCAi-z0Wo

Classrooms collect data on a STEM career they feel is important to their community and contribute its details to a global database.

## **MATH FUTURES**

#### **DIG INTO MINING**

https://www.digintomining.com/digital-explorations

Interactive program that uncovers the use of metals in our everyday life, and provides a deeper understanding of today's mining industry.

#### DIG A LITTLE DEEPER VIRTUAL LAB

https://www.digintomining.com/sites/default/files/virtual-lab/index.html#/

An interactive look into modern-day mining with an authentic learning simulation focused on the exploration phase of hard rock mining.

# FAST FORWARD STEAM

http://www.gpb.org/fast-forward

Digital career series across the state of Georgia.

#### FEDERAL RESERVE BANK OF ATLANTA

https://www.gpb.org/fast-forward/launch-pad/federal-reserve-bank-of-atlanta

If the Federal Reserve Bank of Atlanta doesn't print money, who does? You'll find out in this episode, and meet some folks who are very surprised to find themselves using their math skills from school.

# **MATH EMOTIONS**

# **ENCOURAGING STUDENT INDEPENDENCE IN MATH**

https://www.edutopia.org/article/encouraging-students-independence-math

Including emotion regulation activities in math lessons can help elementary students learn the content more effectively.