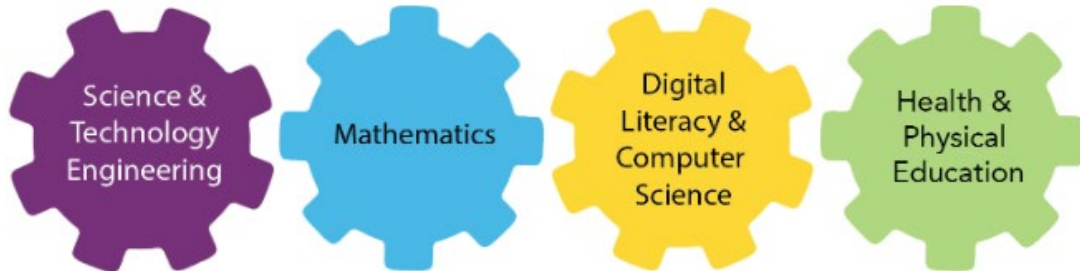




Center for
Instructional
Support

March 2025

STEM Newsletter



The image is of 4 gears. Gear one is purple and says: Science, Technology & Engineering. Gear two is blue and says: Mathematics. Gear three is yellow and says: Digital Literacy & Computer Science. Gear 4 is green and says: Health & Physical Education

Welcome to the DESE STEM Newsletter

[View this email in your browser](#)

- [Highlight](#)
- [Educator Opportunities](#)
- [District Opportunities](#)
- [Organization Opportunities](#)
- [Important Dates](#)

We encourage you to share this newsletter with colleagues and [subscribe!](#)

HIGHLIGHT

**MA Students Wowed Industry Representatives and Judges with their
Computer Science Projects**

Middle and high school students from six school districts across Massachusetts showcased their computer science talent and projects on February 5 at Worcester State University. Each student team presented their projects to computer science industry representatives, event judges, and each other, and received awards in a number of categories. This event was part of the PACE program through Education Development Center, and funded by NSF, which works to support adoption of computer science as an important component of middle school education.



If your district has a highlight to share, please contact Beth at Beth.Williams-Breault@mass.gov

EDUCATOR OPPORTUNITIES

Comprehensive Health and Physical Education (CHPE) Professional Development Opportunities

Please join us for upcoming virtual and in-person opportunities to support CHPE implementation. Opportunities include [CHPE Webinars](#), Using CHPE Frameworks to Elevate Youth Voice Through Service-learning, Food System Literacy, Engaging Students with Disabilities in PE, Meaningful PE, Inclusive Practices in Sex Ed, and Being an Agent of Change.

[REGISTER HERE](#)

Register for the DLCS Summit!



DESE is pleased to announce that registration is now open for the 5th annual DLCS Summit! This gathering of DLS educators and leaders from across the state will be held on May 29, 2025 at Worcester State University from 8:00 to 3:00. Join us to network, learn, and celebrate. We will again be offering a variety of Digital Literacy and Computer Science content presentations/workshops on different tracks organized by grade and role. There is no cost to attend. We had over 200 registrants last year with a waiting list so [Register early!](#) Please contact Paula Moore at Paula.B.Moore@mass.gov with any questions.

Addressing MLs Dual Language & Core Content Acquisition Challenge 2- part Virtual series

Intended Audience: District/school leadership, coaches, directors, department heads

Program Description: New Professional Development

Format: Virtual

How can ELs'/MLs' dual challenge of English language and core content acquisition be reconciled? Addressing the Achievement Gap by supporting MLs to keep pace with their peers in content knowledge as they acquire English, and ALL students learn at-grade content.

Part 1: All students including Multilingual Learners CAN do at-grade core content

Address the Achievement Gap: Multilingual Learners (MLs) keep pace with their peers in content knowledge as they acquire English and ALL students learn at-grade content

Date: 4/30/2025 **Time:** 2:30 - 4:00 P.M (1 hour 30 minutes)

Part 2: The Games We Play: Using Effective Language Development Strategies Pathways to Academic Language Content and Language Acquisition

Advance MLL/ELL's language and content acquisition; support core content teachers to enhance ELL's content and language acquisition

Date: 5/6/2025 **Time:** 2:30 – 3:45 PM (1 hour 15 min)

Register: [Registration - Addressing MLs Dual Language & Core Content, Acquisition Challenge](#). For more information contact meto.raha@mass.gov.

Paid Opportunity for Classroom Teachers-Harvard Forest

The Matthes Lab at Harvard Forest is seeking two educators to participate in a NSF funded Research Experience for Teachers (RET) program. The two educators will collaborate with members of the lab to support work studying the [impacts of methane and carbon dioxide cycling](#) within wetland and upland environments. They will learn all aspects of the data collection and analysis process as well as create a [Data Nugget](#) as a classroom tool to teach these concepts to the wider community.

This is a field intensive position and candidates should be prepared to spend whole days outside and be able to carry heavy equipment.

RET Expectations:

- RETs are expected to be in-person at Harvard Forest for a 5-week duration between July 7th, 2025 - August 8th, 2025.
- RET participants are expected to contribute to the Schoolyard Ecology Summer Institute on August 19th, 2025.
- Approximately 40 additional remote hours will be spent on curriculum writing and classroom testing in the late summer and early fall of 2025.

Stipend Term and Amount: The Stipend amount will be \$8,320 and will be paid in 3 equal installments in July, August, and September.

Interested candidates should submit a cover letter and resume to hfapps@fas.harvard.edu, Subject Line: RET position, ATTN: Katharine Hinkle, Youth Education Manager, by March 31st, 2025.

We want to hear from you: Calling all Math and EL Educators!

DESE, in partnership with [WestEd](#), is seeking insights from educators to improve EL and Math-Tiered instruction. We value your expertise and want to hear from you through a quick 15-minute survey.

If you are a K-8 educator, and work as a Classroom Teacher, Special Education Teacher, ESL Teacher, School Administrator, Interventionist, Specialist, Instructional Coach, Curriculum Directors or District Administrator, please take this survey.

Bonus: Survey participants will enter a raffle to win a \$25 e-gift card!

[MA DESE Survey: Tiered Instruction in Math and ELA](#)

Estimated Time: 15 mins

Due Date: April 11, 2025

Your input will help shape the future of education in Massachusetts, as findings from the study will be shared with practitioners to inform their own practice.

Thank you for making a difference! #EduResearch #ELA #MathEducation #K8 #WestEd

Call For Classroom Examples of Deeper Learning!

The [Kaleidoscope Collective for Learning](#) is continuing to build a video library that includes classrooms that illustrate elements of deeper learning and strong culturally and linguistically sustaining practices in support of the [DESE's Educational Vision](#). We are seeking a diverse set of MA educators across K-12 who demonstrate strong pedagogical practices as outlined in our [Deeper Learning Guidance Tool](#) and [DESE Agnostic Classroom Observation Tool](#). This project will provide examples for practitioners across a variety of contexts and highlight skillful implementation of high-quality instructional materials and culturally and linguistically sustaining practices.

If you would like to **nominate** an educator to be filmed and featured in this video library, please complete the nomination form here: [Video Library Nomination Form](#).

If you have any questions about the video library or nomination process, feel free to reach out to Dr. Ashley Sharpe-Porter at ashley.sharpe-porter@mass.gov.

Apply for a \$7,500 High School InvenTeam Grant



Do you know high school students who are ready for a real challenge? The InvenTeam Grants Initiative, created by the Lemelson-MIT Program, offers an opportunity for students to cultivate their creativity and solve real-world problems through experiencing invention.

- InvenTeams are teams of high school students, educators, and mentors which receive grants of \$7,500 to invent working technological solutions to real-world problems.
- High school educators and their teams may apply for the InvenTeams grant.
- Each InvenTeam chooses its own problem to solve.
- Up to 10 schools will be awarded the InvenTeam grant.

Being on an InvenTeam is a life-changing experience. [See for yourself what teens can accomplish when they think like inventors!](#)

First Round Due Date for Teacher Applications: April 23rd

Application Information Webinars:

- **March 18: 7:00 PM ET** (registration <https://mit.zoom.us/meeting/register/0Unewqx-SXixAzIVp3tG9w>)
- **April 8: 7:00 PM ET** (registration https://mit.zoom.us/meeting/register/W3lQFCqvTh6AeO_Dol2S6g)

For more information visit our website [here](#), or email inventeams@mit.edu

Learn More & Start Your InvenTeam Application! <https://lemelson.mit.edu/inventeams>

Summer 2025: Data Paths Professional Learning Opportunities for Teachers and Leaders



This summer, the Data Paths project at Education Development Center is offering free PD opportunities featuring hands-on curriculum modules, instructional routines, and strategies for building students' data literacy skills. Engage students in investigating real-world data, creating and interpreting graphs, communicating findings, and other key standards from the Massachusetts Frameworks. There are multiple PD opportunities in July and August described in these flyers for:

- [Upper Elementary Teachers \(Grades 3-5\)](#)
- [Middle School Mathematics Teachers \(Grades 6-8\)](#)
- [High School Science Teachers \(Biology, Chemistry, Environmental Science, Physics\)](#)

At the in-person PD sessions, you will try the activities yourselves and prepare to use them with students. Benefits include high-quality PD sessions, ready-to-use resources, PDPs, and stipends. **Teachers, coaches, specialists, and leaders** are invited to apply. **The deadline to apply is March 24th—so register now** (application URL: <http://go.edc.org/DataPD2025-apply>)! Space is limited! You can also [sign up](#) for our mailing list to learn about future opportunities or email datapaths@edc.org with questions.

Discovering, Exploring, and Sharing Climate Resources

The Climate Literacy and Energy Awareness Network ([CLEAN](#)) and the Institute for the Study of Knowledge Management in Education ([ISKME](#)) are partnering to bring together climate researchers, K-12 educators, and climate literacy resources to build a community of leaders to collaborate in a [webinar series](#) in March and April.

March 19th – The state of climate science in the United States

- Rajul Pandya, Executive Director and Professor of Practice, Mary Lou Fulton College for Teaching and Learning Innovation, Arizona State University

April 1st – Climate adaptation and mitigation

- Xavier Cortada, Artist
- Adam Roberti, Executive Director, Cortada Foundation

April 14th – Hope and transformative climate action

- Katherine Hayhoe, Chief Scientist, [The Nature Conservancy](#)

Science and Cooking for Secondary Science Teachers Program

In this program led by Harvard's Science and Cooking Program, science teachers will participate in...

- **8-day hybrid summer workshop:** 4 days at Harvard's Science and Cooking Lab to experience food-based labs and lessons; 4 virtual days with Zoom meetings and asynchronous work to plan for the school year and adapt lessons
- **Year-long program** where they will facilitate lessons in their classroom, collect data, and be part of our teacher community through monthly Zoom check-ins and Slack/Facebook

Participants will earn 148 PDPs, gain access to in-depth instructional resources, and be eligible for stipends during the school year. Each lesson centers around a food which is framed as an anchor phenomenon that is explored through a sequence of NGSS-aligned labs, activities, readings, and videos.

Summer Workshop Dates

Middle School Science Workshop:

- **July 8- July 11:** In-Person (8-4pm)
- **July 14- July 17:** Virtual (12-1pm on Zoom)

High School Chemistry Workshop:

- **July 22- July 25:** In-Person (8-4pm)
- **July 29- August 1:** Virtual (12-1pm on Zoom)

[Apply](#) to this program by **April 2**. Spots are limited. In 2024, only ~20% of applicants were accepted. Early application increases the likelihood of acceptance. Learn more about the lessons and program [here](#). Contact scicook-k12@seas.harvard.edu with any additional questions.

Paid Research Opportunity for High School Science Teachers

Please [view the flyer](#) for this NSF Research Experience for Teachers (RET) project, which will run for 6 weeks over the summer at Boston College, and is focused on cellular agriculture, comes with an 11K stipend + year-round implementation and financial support. Preference given to teams of science and engineering teachers applying from the same school. Application available at <https://tinyurl.com/cellagret> – applications due **March 9, 2025**. Questions? Email hira@bc.edu.

Youth Mental Health First Aid Training

Youth Mental Health First Aid is designed to teach parents, family members, caregivers, teachers, school staff, neighbors, health and human services workers, and other caring citizens how to help an adolescent (age 12-18) who is experiencing a mental health or addictions challenge or is in crisis. The course introduces common mental health challenges for youth, reviews typical adolescent development, and teaches a 5-step action plan for how to help young people in both crisis and non-crisis situations. Topics covered include anxiety, depression, substance use, disorders in which psychosis may occur, disruptive behavior disorders (including AD/HD), and eating disorders.

Dates:

- **Tuesday, March 11th and Thursday, March 13th** – 2:30-5:00pm both days
- **Tuesday, March 25th** – 8:30am-1:30pm
- **Tuesday, April 29th** – 8:30am-1:30 pm
- **Tuesday, April 15th and Thursday, April 17th** – 2:30-5:00pm both days
- **Monday, May 5th and Wednesday, May 7th** – 2:30-5:00pm both days
- **Tuesday, May 13th** – 8:30am-1:30pm

[REGISTER HERE](#)

For more information on Youth Mental Health First Aid, visit the [YMHFA website](#).



American Association of Physics Teachers Professional Learning Opportunities

Applications are open now for the [PTRA Summer BootCamp](#): Empowering Physics Teacher Leaders. Workshop Overview: This intensive three-day professional development workshop is designed for educators who are ready to take the next step in their professional journey by becoming effective teacher leaders. Led by experienced teachers, the workshop focuses on developing the skills, knowledge, and strategies required to lead impactful professional development (PD) sessions within their local schools or districts. Participants will engage in collaborative learning, hands-on activities, and reflective practices that will prepare them to design and lead high-quality PD experiences tailored to their colleagues' needs. For this opportunity, travel and AAPT National Meeting expenses are covered.

Applications are open for the [STEP UP Everyday Actions Professional Learning Community](#). Members of the STEP UP Everyday Actions Professional Learning Community (PLC) are teachers of physics working to inspire young women to see themselves as a physics person. This community will use the updated Everyday Actions Guide to shift culture in their classrooms to a more inclusive, collaborative space in which all students feel welcome. Participants will receive a stipend for their involvement.

Are you looking for a great extra-curricular computer science/business program for girls? Try Technovation!



Technovation is a global tech education nonprofit that empowers girls to become more confident leaders, creators, and problem-solvers. The [Technovation Girls](#) program gives young women (ages 8 -18) the opportunity to become tech entrepreneurs and leaders. During the program, girls work in a team supported by a mentor to develop and create mobile apps that address real world problems. Throughout the process the teams learn how to program an app as well as how to write a business plan. At the conclusion of the program, teams submit their work to a global competition.

The 2025 Technovation season has just begun and now is the perfect time to assemble a team and start working through the [curriculum](#). Once you have a team ready, make sure everyone registers on the [Technovation site](#).

Getting Started

- Identify students who might be interested in participating. Technovation is open to students ages 8 - 18 who identify as female, trans, nonbinary, or gender nonconforming.
- Identify a mentor. The mentor can be a teacher, parent, or industry partner. No experience in computer science is needed.

- Start the curriculum. The curriculum is meant to be completed over 12 weeks and walks teams through each product they need to create.

Important Dates

- March 15, 2025 -- App Inventor Workshop at MIT
- March 17, 2025 -- Registration Closes
- May 5, 2025 -- Submission Deadline
- May 2024 -- Regional Pitch Showcase (Location TBD)

CSTA Massachusetts is a Technovation Chapter Ambassador and will be your point person for all things Technovation in MA! Find more information on our [website](#) and please contact massachusetts@csteachers.org with any questions.

OpenSciEd Launch Training by the STEM Education Center at WPI

The STEM Education Center at WPI is offering **two summer 4-day OpenSciEd Launch trainings** for science teachers, coaches, and curriculum directors. The trainings will guide educators through the shift toward student-centered science teaching and learning, where students 'figure out' and explain real-world phenomena, as well as the implementation of high-quality instructional materials (HQIM). Throughout the training, participating educators will experience the different routines and pedagogies associated with the OpenSciEd units, as well as work with colleagues to review a subject or grade specific OSE unit and plan for implementation in their classrooms. Graduate course extension opportunity is available for a reduced fee. [Learn more and register](#) (space is limited!). **FREE for MA High School science educators.** Contact [Donna](#) with questions.

Two training options:

Storyline Model of Teaching and Learning Science for K-12 educators (free for HS Educators, all others subject to fee)

July 22-25, 2025 from 8:45-3:30 (ET); virtual on Zoom – middle school unit will be modeled

OpenSciEd High School Launch Training for high school teachers only

August 5-8, 2025 from 8:45-3:30 (ET); in person at WPI – high school unit will be modeled.

You are Invited to the Massachusetts Science & Engineering Fair!

Massachusetts Science & Engineering Fair (MSEF) invites you to visit a Fair this year to see what independent STEM learning and innovation can look like. The program emphasizes student-led research projects that foster critical thinking, data analysis, and communication skills. MSEF provides support and resources for teachers and students, including timelines, guidelines, and

connections to STEM professionals. Participation involves various stages, from project planning and execution to presentation at regional and state fairs. The overall goal is to cultivate student curiosity and build a strong foundation in STEM fields. **Educators and professionals from around the state are invited to participate as visitors, judges, or volunteers for the event.**

Email info@scifair.com for more information or visit www.scifair.com

- High School State Fair: **April 4, 2025**, at Gillette Stadium, Foxboro.
- Middle School State Fair: **May 10, 2025**, at Clark University, Worcester.
- Various Regional Fairs in **March and April** across the state.

Free Career-Readiness and STEM Enrichment Resource

[Learning Blade](#), a Career-Readiness and STEM enrichment resource, is fully funded (free) statewide for all schools & educational organizations in MA. Learning Blade tools are aligned to Grades 5-9 and include 400+ online lessons and 100+ hours of project-based activities. These resources help students develop industry-ready skills and provide exposure to high-demand career opportunities in Engineering, Advanced Manufacturing, Computer Science, and more.

- Request account for a classroom, school, or district: learningblade.com/MA
- Outline/Preview of all Tools & Resources: <https://bit.ly/missionsoutlin>
- Learning Blade MA State Flyer: <https://bit.ly/MAstateflye>

For more information, please reach out to Taylor True (taylor@learningblade.com), Massachusetts State Manager for Learning Blade.

DISTRICT OPPORTUNITIES

Science Performance Assessment (SPA) Ambassador Program

Applications will be opening soon for our Science Performance Assessment (SPA) Ambassador train-the-trainer program! DESE is looking for districts to identify SPA Ambassadors to support educators and students within their district to become familiar with Science and Technology/Engineering (STE) assessment practices in support of deeper learning. SPA Ambassadors have the exciting opportunity to join our existing 23-24 SPA Ambassador community and gain the skills and tools needed to lead science assessment literacy trainings for grades K-12 educators in their school/districts.

Proposed training dates for NEW SPA Ambassadors:

- **June 23 & 24, 2025** (in-person, location and time TBD)
- **August 12 & 13, 2025** (in-person, location and time TBD)

Professional Development Points (PDPs) will be awarded at the completion of the course. All program materials will be available after completion of the course. Travel reimbursement and overnight accommodations for participants travelling 50 miles or more will be available.

[APPLY HERE](#)

For more information about the program, please visit the [SPA Ambassador site](#).

CS Professional Development and Devices Grant Application Now Available!

DESE is pleased to announce a new grant for districts to support Computer Science PD and Devices. [FY2025: Computer Science Professional Development and Devices](#) has been posted! The purpose of this competitive grant is to support Massachusetts public school teachers in learning Computer Science content and in purchasing student learning devices (e.g., circuit boards, Makey Makey, Beebots, micro:bits) for their classrooms. Funds under this grant may be used to attend select summer Professional Learning workshops and purchase classroom devices and accessories associated with that workshop. Optionally, schools may use these funds to purchase devices or accessories for teachers using a CS curriculum marked as "comprehensive" in the [Massachusetts Digital Literacy and Computer Science Curriculum Guide](#).

Please see the [grant posting](#) for the application requirements and how to contact the DESE grant coordinator with questions.

IMplement MA: HQIM Implementation Learning Series for District Leaders

The [Center for Instructional Support](#) is excited to announce the **IMplement MA: HQIM Implementation Learning Series for Instructional Leaders**. In partnership with TNTP, this 3-session series is an opportunity to learn from MA district leaders who are leading implementation and change efforts with high-quality instructional materials (HQIM), to cultivate deeper learning for all students. Presenters will share and reflect on improvement strategies, practices, and lessons learned in implementing HQIM and provide opportunities for attendees to interact and engage with others. All MA district and school leaders are invited to attend, including PDPO districts. Sessions are not content specific but may use math/science examples and artifacts. Sessions are stand alone; come to one or all! Register to attend below. Contact Jeff Pera [\[jeffrey.pera@mass.gov\]](mailto:jeffrey.pera@mass.gov) with any questions.

- [Session 1](#) - "Culture of Learning: High Expectations & Support and Asset-Based Teaching"
 - **Thursday, March 27th, 10:00 AM - 11:30 AM**
- [Session 2](#) - "Implementation Plans: What's Your Strategy?"
 - **Thursday, April 3rd, 10:00 AM - 11:30 AM**
- [Session 3](#) - "Leadership Moves that Support ALL Learners"
 - **Thursday, May 1st, 10:00 AM - 11:30 AM**

Seeking Input on Updates to DESE's Model Student Feedback Instruments

DESE is seeking input to inform updates to the [model student feedback instruments](#). Please find additional information below and complete this [brief survey](#) to share your experiences and ideas.

Context: DESE's model student feedback instruments support teachers, coaches, and evaluators to seek student perspectives and use them to inform educators' professional growth and development. The model student feedback instruments include discussion prompts for students in kindergarten through 2nd grade, as well as surveys for students in grades 3-12. The instruments are used by pre-service teachers during their practicum, as well as in-service teachers for purposes of self-reflection and evaluation. Districts may adopt, adapt, or choose alternatives to these instruments. DESE plans to update the instruments to align with the revised [Standards of Effective Teaching Practice](#), which were recently revised to center evidence-based, culturally and linguistically sustaining teaching practices.

Audience: We are hoping to better understand how educators use these instruments, as well as perceptions of their strengths and challenges. We would like to hear from individuals with a range of experience with the instruments, including classroom teachers, instructional coaches, building leaders, and district administrators. You are encouraged to complete the survey yourself and to pass it on to others.

Questions: Please email EducatorPreparation@Mass.Gov

From Awareness to Action: A Human Trafficking Conference

Presented by the Cape & Islands District Attorney's Office, "From Awareness to Action - A Human Trafficking Conference," is a statewide multidisciplinary training on human trafficking prevention and response:

This event brings together professionals from various disciplines to enhance the prevention, identification, and response to human trafficking. It is designed for law enforcement, healthcare providers, social service agencies, legal professionals, educators, community organizations, hospitality industry workers, and transportation workers.

The training emphasizes a collaborative, victim-centered approach to addresses trafficking. Through expert-led sessions, case studies, and interactive discussions, participants will gain the knowledge and tools needed to effectively combat human trafficking in their communities. It aims to foster a coordinated, statewide response that prioritizes victim safety, offender accountability, and systemic change.

Key components include:

- Prevention Strategies
 - Identification & Screening
 - Interagency Collaboration
-

- Resources & Victim Support

Dates: April 10-11, 2025
Location: Resort and Conference Center at Hyannis / Hyannis, MA

[Register HERE by April 1.](#)

ORGANIZATION OPPORTUNITIES

DESE Seeks Organizations to Support School, District, and DESE Sustainable Improvement Efforts

DESE is looking for organizations with a demonstrated capacity to successfully support school, district, and state sustainable improvement efforts. This Master Agreement serves priorities across DESE departments, including the Statewide System of Support and Center for Instructional Supports. Those that are approved will be eligible for competitive contracts that are only available to those who are on the pre-approved list. Further, the approved list is made available to Massachusetts schools and districts to support their selection of providers.

For information, review the [COMMBUYS - Bid Solicitation](#)

IMPORTANT DATES and RESOURCES

Important Dates

March

- **March 13:** Science District Leaders Network (STEDLN) Meeting. [Register to attend here](#). Reach out to Casandra Gonzalez for more information about the network. Casandra.Gonzalez@mass.gov
- **March 19:** Math Leader Network Virtual Meeting - Reach out to Jenn Sauriol to connect with this network. Jennifer.L.Sauriol@mass.gov
- **March 20:** [ATMIM](#) Spring Conference, Breaking Boundaries: Beyond the Limits of Mathematics at Holy Cross College, Worcester – [Register here](#)

- **March 25:** Comprehensive Health and Physical Education Leaders Network (CHPELN) Virtual Meeting [Register to attend here](#). Reach out to Beth Williams-Breault for more information. Beth.Williams-Breault@mass.gov.

April

- **April 4:** Massachusetts High School Science Fair, Gillette Stadium in Foxborough - Email info@scifair.com for more information or visit www.scifair.com

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