## **Pathway for K-Gray Engineering Education**



- **Discipline:** Engineering • Ed level: K-Gray
- A collaboration to provide a comprehensive engineering portal for high-quality teaching and learning resources in engineering, computer science, information technology and engineering technology – the Engineering wing of NSDL. Start date: October 1, 2005.



http://www.needs.org



http://www.teachengineering.com

NEER Your Portal to Resources for All Levels and Types of Engineering Education





## **K-Gray Engineering Pathway**

- TeachEngineering :
  - Jacquelyn Sullivan & and Mindy Zarske— Univ. of Colorado at Boulder
  - René Reitsma, Oregon State University
  - Gary Ybarra & Paul Klenk, Duke University
  - Mike Mooney, Colorado School of Mines
  - Martha Cyr, Worcester Polytechnic Institute

- NEEDS Higher Education
  - Alice Agogino, Jialong Wu, Andi Niess, Paul Mackinney, UC Berkeley
- Evaluation/ Sustainability
  - Joe, Tront, Virginia Tech
  - Nancy Van House, School of Information, UC Berkeley
  - Advisory Board



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1) merge **NEEDS** and **TeachEngineering** into a unified K-Gray engineering educational digital library; 2) significantly grow high quality resources in the NSDL Engineering Pathway in a sustainable way; 3) align the unified curricular materials with appropriate undergraduate (Accreditation Board for Engineering and Technology -ABET criteria) and K-12 educational standards, 4) grow the participation of content providers and users; 5) enhance quality control and review protocols for Engineering Pathway content; and 6) create a nonprofit strategy and partnership for the sustainability.





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## **TeachEngineering: K-12 Resources**

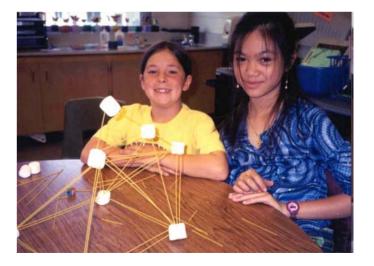
• 13 subject areas (algebra, biology, chemistry, data analysis and probability, measurement, physical science, etc.)

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- 26 Curricular units (themes or related lessons)
- 163 Lessons (focused topics)

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- 327 Hands-on activities
- Living Labs Portals to engineering data



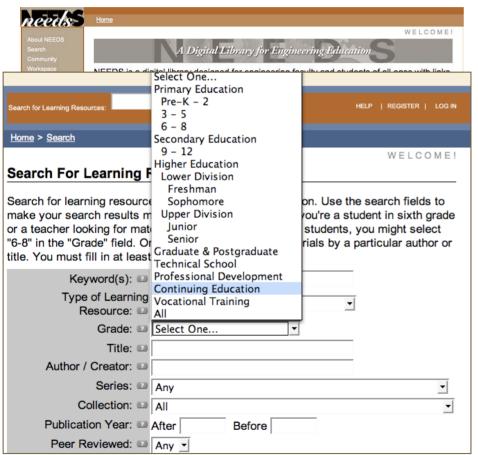




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## **NEEDS: Higher Ed/Professional Society Target Audiences**

ENGINEERING PATHW



- NEEDS is oldest educational digital library operating since 1990
- NEEDS has aimed at higher education with 8,000+ learning objects and 3,000 registered users
- Accesses average 50,000 -70,000 per month.





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