Resources Shared in Chat December 8 Taking Stock Summit

Thank you all for your participation and willingness to share resources. Please feel free to enter in your resources below. We will make sure that all links are active.

How to add resources: We are hoping to organize the links by headers. The hyperlinks below will enable you to place links in relevant sections. Add your resource below, making sure it is part of the "bulleted" list. Feel free to add a note about what topic it relates to as well.

Weblinks/Projects Arti	les Books	<u>Presentations</u>	<u>Videos/Audio</u>
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Weblinks/Projects

- OpenSciEd
- STEM Teaching Tools
 - Justice-centered Phenomena
 - Why it is crucial to make cultural diversity visible in STEM education
 - How to launch STEM investigations that build on student and community interests and expertise: StemTeachingTools (en-US)
 - How can you advance equity and justice through science teaching?
 - PD Module: <u>Making Science Instruction Compelling for All Students: Using Cultural Formative Assessment to Build on Learner Interest and Experience</u>
 - Climate Learning Resource Collection (briefs & 3D assessment tasks)
- New Visions Science Curriculum
- InquiryHub (curriculum in middle school CT, high school biology, chem, assessments)
- NGSS Design Badge and High Quality Units
- Science Task Screener
- SOLID Start (Science, Oral Language, and Literacy Development from the Start of School): K-2 integrated science and literacy curriculum. Open Source
- https://nextgentime.org/
- Oregon's HS Science for All three year course pathway
- Oregon's ESSER III (unfinished learning) funding parameters for district
- Next Generation Science Assessments
- STEM Teaching Tools Related to Assessment Design
 - o STT 29: Steps to Designing a 3D Assessment
 - o STT 30: Integrating Science and Engineering Practices into Tasks
 - o STT 41: Crosscutting Concepts Prompts
- Colorado Dept of Ed: Collaboratively-developed, Standards-based Performance Assessment
- SAEBL Checklist

Articles

- <u>Understanding Public Sentiment About Educational Reforms: The Next Generation</u>
 Science Standards on Twitter
- Transform Article
- JSTE Articles <u>Instructional Materials Designed for A Framework for K-12 Science</u> <u>Education and the Next Generation Science Standards: An Introduction to the Special</u> <u>Issue</u>
- <u>Justice-centered science pedagogy: A catalyst for academic achievement and social transformation by Dr. Daniel Morales-Doyle</u>
- Horizon Report
- RAND Data Snapshot
- Penuel, W. R., Reiser, B. J., McGill, T. A. W., Novak, M., Van Horne, K., & Orwig, A. (2021). Connecting student interests and questions with science learning goals through project-based storylines. *Disciplinary and Interdisciplinary Science Education Research*. https://doi.org/10.1186/s43031-021-00040-z (DOI will become active around 12/15/21)
- Penuel, W. R., Allen, A.-R., Henson, K., Campanella, M., Patton, R., Rademaker, K., Reed, W., Watkins, D. A., Wingert, K., Reiser, B. J., & Zivic, A. (2021). Learning practical design knowledge through co-designing storyline science curriculum units. *Cognition and Instruction*. https://doi.org/10.1080/07370008.2021.2010207 (DOI will become active around 12/15/21)
- Dr. Angela Calabrese Barton and Dr. Edna Tan: Beyond Equity as Inclusion: <u>A</u>
 <u>Framework of "Rightful Presence" for Guiding Justice-Oriented Studies in Teaching and Learning</u>
- Penuel, W. R., & Watkins, D. A. (2019). Assessment to promote equity and epistemic justice: A use-case of a research-practice partnership in science education. *Annals of the American Academy of Political and Social Science*, 683, 201-216. https://doi.org/10.1177/0002716219843249
- <u>Funds of Identity: A new concept based on the Funds of Knowledge approach</u> by Moises Esteban-Guitart & Luis C. Moll
- Shepard, L. A., Penuel, W. R., & Pellegrino, J. W. (2018). Using learning and motivation theories to coherently link formative assessment, grading practices, and large-scale assessment. *Educational Measurement: Issues and Practice*, 37(1), 21-34. https://doi.org/10.1111/emip.12189
- Davis, E. A., Palincsar, A. S., Smith, P. S., Arias, A., & Kademian, S. (2017). Educative curriculum materials: Uptake, impact, and implications for research and design. *Educational Researcher*, 46(6), 293-304. doi:https://doi-org.proxy.lib.umich.edu/10.3102/0013189X17727502

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Books - including National Academies reports

- Guide to implementing the NGSS
- Framework
- Science and engineering in preschool through elementary grades: The brilliance of children and the strengths of educators -- #BrillianceAndStrengths
- Dr. Leilani Sabzalian: Indigenous Children's Survivance in Public Schools
- Dr. Bettina Love: We Want To Do More Than Survive
- Dr. Bryan Brown: Science in the City

- Brett Moulding and Rodger Bybee: <u>Vision and plan for science teaching and learning</u>: <u>Teaching science is phenomenal</u>
- Dr. Gloria Ladson-Billings: <u>Culturally Relevant Pedagogy: Asking a Different Question</u>

Presentations

• Supporting expansive science learning through different classes of investigative phenomena

Videos/Audio

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