coggle
made for free at coggle.it

-Patti Curtis

SEL Skills (creativity, perseverance, collaboration, communication, growth mindset)

-CIS

-Gemma Lenowitz
-Latasha Wright
-Jennifer Rehkamp

Curiosity

-Creativity
-Innovation, attitude, reaction to new stimuli
-Need to know more about oneself or environment

-Curiosity PSU/Michigan SCILE
-The Children's Science Curiosity Scale (CSCS)
-Fascination in STEM
-Innovation Stance in STEM
-Girls Inc. Strong, Smart, and Bold Survey

-NSLA
-Jewett

Positive Change of Girls in Making

-DEW Development
-Aimee Tallian

Interest

-Students promote to peers (Net promoter Score)

-Exploring Youths' Interest-Related Pursuits
-Engagement Observation Protocol
-Children's Attitude Toward Technology Scale
-Emerging STEM Learning Activation Survey
-STEM-Related Scales
-Heather Zimmerman
-PEAR CIS
-NAEP Sci/Tech+E "context" questions
-STEM Profile Instrument (UNCG)
-DEVISE
-Science Teacher Efficacy Belief Instrument (STEBI)

-Patti Curtis
-Jessica Manta-Meyer
-NGI
-Jennifer Rehkamp

Motivation

-Aligning with Known Program Quality Measures
-Problem Solver
-STEM growth mindset
-Increasing minority + girls motivation using citizen science

-DEVISE
-The Science Motivation Questionaire II
-The PISA Questionaire
-Innovation Stance in STEM

-ASTC

Belonging

-Belonging Across Race/Ethnicity/Gender
-A program's ability/willingness to "become" (create) belonging
-Finding a sense of purpose in STEM
-Choice to join and continue in a program (attrition longevity)
-Persisting in STEM learning environments

-Edna Tan
-Jasmine Ma

Measuring "STEM" as siloed from the whole person and Community

-Acten MSFT
-NAA
-Sue Allen
-Imagine Science

Program Facilitator Confidence capabilities

-Training and support (for staff, volunteers)
-STEM Facilitation skills (outcome for educators not youth)
-Quality of instruction

-DoS

NSLA

Teaching Pedagogies

-Jennifer Rehkamp
-Patti Curtis

Positive Relationships

Supportive/Mentoring Relationships
-Plus relationship building with youth.

Andrea Lattanner

Mentors/Role Models

-Kristin Lewis-Warner
-NSLA
-Andres Henriquez

Home/School Environment

-Access to resources at home
-Parent familiarity/comfort with STEM content and STEM fields/professions

Use value of "science" aka social meaning

-Program for International School Assessment
-Test of Science-Related Attitudes
-Survey of Principles of Connected Learning
-Modified Attitudes Towards Science Inventory
-ROSE

-Jewett
-Michael Conn
-Jennifer Rehkamp
-NSLA

Engagement

-Focus, participation, persistence
-Rapport with Instructor
-Hands-on, Minds-on Experiences

-DEVISE
-Engagement in Science Learning Activities
-Survey of principles of connected learning
-The Engagement Survey
-The Engagement Observation Protocol
-Student Program/In-School Attendance

-ILLW
-Jason Spector
-Patti Curtis
-Tina Philips
-Andres Henriquez

Self Efficacy

-Competency/Belief in self
-educator -w/r/t activity instruction and student
-Agency

-DEVISE
-NAEP Science Tech/Engineering +Math "content" Questions
-Science Student's Metacognition, Self-Efficacy and Learning Processes
-Test of Science-Related Attitudes
-Waring Attitudes Toward Science Protocol (WASP)
-4-H Science Youth Survey

-Jessica Manta-Meyer
-Deborah Wasserman
-Sue Allen
-Beth Unverzagt
-Tina Phillips

STEM Practices

-Students have opportunities to practice science in an authentic way.
-Developing questions
-Designing experiments
-Communicating results

-Science Process Skills Inventory
-Simpson Troost Attitude Questionnaire (Revised)
-Views on Science Education (VOSE)
-DEVISE

-Jennifer Rehkamp
-Corey Newhouse
-ASTC
-NSLA
-J. Kilgore Baton
-Sabrina Gomez
-TP
-AH

Community impact

-Community Environment
-Creating and upholding a safe space for youth
-Creating a community of learners
-Community Engagement
-Industry Engagement

-Emily McLeod
-Latasha Wright
-Patrik Lundh
-Tina Phillips

Social Justice

-Activism/Civic Action
-Bridge the STEM equity education gap for youth of color
-Cultural Capital

-ASTC
-Patrik Lundh
-Sabrina Gomez

Measuring Social Justice in/with STEM and STEM OST programming

-Emily McLeod
-ASTC
-Gemma Lenowitz
-Andres Henriquez
-Julia Kilgore
-Jennifer Rehkamp
-Patti Curtis

Family engagement in STEM

-Parent Commitment

-NSLA
-Aimee Tallian
-DEW Development
-Sabrina Gomez

Attitudes toward STEM

-Views on Science (Technology, Engineering, and Math)
-Appreciation of science/nature
-Ability to make change in STEM culture
-Behaviors related to seeking new STEM opportunities

-NAEP SCie/Tech, ENG + Math "Context Question"
-4-H Science Initiative tool
-Attitude toward science survey
-CARS
-Modified Attitudes Towards Science Inventory
-Views of Scientific Inquiry: Primary School Edition
-Views on Science and Education Questionaire
-Views on Science Technology Society (VOSTS)

-DEW Development
-Andrea Lattanner
-Corey Newhouse
-Imagine Science
-Tina Phillips
-Andres Enrique
-Emma Banay
-ASTC
-CAISE

STEM Identity

-Students see themselves as scientist or feel empowered to pursue science
-In general, the field lacks a common definition of STEM Identity.
-Positive Change in Self Identification as a STEM Professional
-Career Aspirations in STEM
-Confidence to pursue STEM

-STEM Profile Instrument (UNCG)

-DEW Development
-Sabrina Gomez

Science/STEM Captial

-Jason Spector

-STEM Identity and Intersectionality
-Inclusion - seeing self as belonging in STEM

STEM Content

-DEW Development
-Patti Curtis

-understanding of how to use foundational digital skills (use of software applications)
-Digital Lit Skils
-Digital tools are for everyone

Sue Allen

-Ability to complete complex projects in STEM area

-Andrea Lattanner
-Latasha Wright
-NSLA
-Julia Kilgore
-Michael Conn
-Patti Curtis
-Jason Spector
-Emma Banay
-Imagine Science
-DEW Development

Career Awareness/Interest

-Course selection/progression along STEM education pathways
-Career exploration/exposure
-Knowledge of careers and Career pathways
-aspirations related to STEM

Post-secondary - traditional education - opportunity pathways -non-traditional

-Pear CIS
-Exploring youths' interest-related pursuits tool
-Science Opinion Survey
-Relevance of Science Education (ROSE)

-Patti Curtis
-Julia Kilgore

Academic Enrichment

-Building formal and informal
-Different impacts achieved in summer versus afterschool (versus year-round)
-Connection to school-year/in school learning

-Marvin Carr
-Jennifer Rehkamp
-NSLA

Personalized Learning/Individualization

-Algorithm +Learning Path Data Training
-Child Centered Learning

Gemma Lenowitz

-Math and Science Achievement

-Grades/test scores