nCASE proposes training the nation’s Science, Technology, Engineering, and Mathematics (STEM) teacher workforce in an augmented Inquiry and Design (I&D) method of instruction. I&D, which is attracting interest among STEM educators nationwide, emulates the scientific method in the classroom. A student-centered approach, it emphasizes inquiry (science and mathematics) and design (engineering) elements. The teacher is cast in the role of a facilitator and co-researcher with scientists and engineers as mentors in a communal process of learning through inquiry and experimentation. The process shows considerable promise as a method for captivating and engaging students’ inquiring minds.
Forensics and Discovery Math II

Pre-Algebra
- Measurement
- Estimation
- Ratio
- Proportion
- Scaling
- Formulas

Algebra I
- Graphing
- Rate
- Line of Best Fit
- Exponential Growth and Decay
- Linear Equations
- Variables

Geometry
- Angle Measurement
- Triangles
- Volume

Statistics
- Probability
- Data Collection
- Error
- Correlation Coefficient
- Mean/Median/Mode

Activity One - Ball Flinger
Activity Two - Contamination
Activity Three - Map It
Activity Four - Melting Ice Cubes
Activity Five - Race Cars
Activity Six - Strawberry DNA
Activity Seven - Flow Meter
Activity Eight - Stride
Problem Solving - Crime Scene Investigation

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Integrate STEM into curriculum
Promote discovery/inquiry and design in learning
Encourage real-world experiences using scientists and engineers in the STEM classroom
Model a student-centered classroom using hands-on learning
Mapped to the Common Core State Standards
Promote assessment and evaluation

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