SimScientists Games
Development of Simulation-Based Game Designs to Enhance Formative Assessment and Deep Science Learning in Middle School

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www.simscientists.org

What are SimScientists Games?
Academic games that engage students in differentiated challenge activities within simulated science systems

SimScientists Games reinforce, extend, and assess the science practices and core ideas taught in a middle school ecosystems curriculum unit.

Project Goals
• Create games that assess and promote student learning
• Document effectiveness, feasibility, and utility
• Explore potential to measure and support collaboration
• Document design principles for additional science systems

Research Design
Game Development (2015–16)
• Design and develop two 45-minute games
• Alignment to learning performances and assessment targets
• Play testing, focus groups, think-aloud studies; revisions
Feasibility Testing (2016–17)
• Integrate into instruction in the classrooms of six teachers
Pilot Testing (2017–19)
• Two rounds of revision and subsequent pilot testing
• Comparison group using SimScientists without the games

SIMSCIENTISTS CURRICULUM INTEGRATION
DIFFERENTIATED CHALLENGE ACTIVITIES in SIMSCIENTISTS GAMES

CURRICULUM EMBEDDED ASSESSMENTS AND PROGRESS REPORTS
SUMMATIVE ASSESSMENT AND REPORT

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