



Background Information

How the Materials are Designed for the NGSS

Discovery Education Middle School Science is an all-new phenomena-driven learning program that puts middle school students at the center of each three-dimensional storyline, leading exhilarating investigations that uncover the mysteries of the universe.

- Relevant unit storylines offer intentional sequencing of activities to help students take ownership of their learning.
- Phenomena-driven, research-backed science curriculum cultivates three-dimensional learning experiences.
- Active investigation of phenomena prompts students to ask questions, build models, and develop explanations to generate evidence of sensemaking.
- Lesson planning, differentiation, progress monitoring, and professional growth opportunities provide teachers with time-saving support.
- Exclusive, original, and highly engaging multimedia content makes science exciting and relevant for all students.

Ignite Students' Natural Curiosity

Discovery Education Middle School Science connects students to their inner curiosity, placing them at the center of each 3D learning experience as they lead investigations that uncover the mysteries of the universe. Engaging content, hands-on and virtual STEM activities bring the excitement of science to life.

Action-Packed, Real-World Storylines

With *Discovery Education Middle School Science*, students will engage in an action-packed journey to make sense of phenomena in a way that aligns with their natural curiosities. Each unit storyline follows a 3D learning framework, launching with real-world anchor phenomena to encourage and inspire students to ask important questions as they investigate, collect evidence, and develop models and scientific explanations to communicate their sensemaking. Student Narratives are purposefully integrated to allow students to "see themselves" through authentic conversations around phenomena.

Students as Lead Investigators

Discovery Education Middle School Science encourages active investigation of phenomena through questioning, modeling, data collection, and analysis, which allows students to generate evidence of sensemaking. Hands-on Engineering Activities allow students to apply the steps of the engineering design process to solve real-world problems. Resources in English and Spanish, text at two Lexile levels, and reading support tools ensure access to all students.





Navigating 3D Instruction

Lesson planning, differentiation, progress monitoring, and professional growth opportunities provide teachers with time-saving support. Each unit features numerous three-dimensional teacher notes and scaffolded support that helps students build proficiency. Activity-specific differentiation strategies guide students with varied needs as they progress through NGSS expectations to acquire the required knowledge and conceptual understanding of the scientific ideas in the unit.

Checkpoints All Along the Way

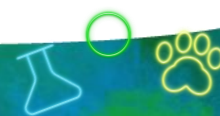
Formative and Summative Assessments are embedded into the learning cycle for each *Middle School Science* unit to support students in achieving proficiency in defined learning goals. Technology Enhanced Items (TEIs) allow students to demonstrate 3D learning with responses that feed directly to the Dashboard. Through Performance-Based Assessments they address each of the unit's performance indicators. Unit Projects encourage research and design of solutions to real-world problems related to the Anchor Phenomenon.

Modular Design

Discovery Education *Middle School Science* consists of 16 modular units, allowing schools and teachers to choose the order in which to complete units based on their preferred pathway: integrated or discipline specific. Two suggested pathways are provided based on research behind *A Framework for K-12 Science Education*.

Evidence of Efficacy

Discovery Education's signature science education resource, *Middle School Science*, cultivates phenomena-based classrooms in which students learn through investigation and design, solve real-world problems, and develop meaningful understanding of the three dimensions of science and engineering—all while developing and employing skills in research, analysis, critical thinking, creativity, communication, collaboration, and productivity. Designed by experts in the Next Generation Science Standards (NGSS) and three-dimensional instruction with help, input, and feedback from classroom teachers, *Discovery Education Middle School Science* brings science learning to life in remote, hybrid, and in-person learning environments.





Discovery Education partnerships throughout the country that support science and STEM education with *Middle School Science* and professional learning have yielded positive results for both instructional practice and student achievement. Below are just a few such examples, presented alphabetically by state.

- "JSD searched for two years for a middle and high school science curriculum. We wanted something that was digital, aligned with NGSS, and continuously updated. Discovery Education *Science* is exactly what we were looking for. - **Ted Wilson, Director, Teaching and Learning Support, Juneau School District, AK**
- "This is the best phenomena-based curriculum I have seen. You have really absorbed the NGSS and made it seamless for us to use." - **Patty Seaton – Science Educator, Prince George County Public Schools, MD**
- "Clear, concise, relevant, easy to use." - **Middle School Educator, Bloomington Independent School District 271, MN**
- "Our students enjoy becoming scientists that follow a contemporary, dynamic, storyline. I appreciate the implementation of real scientific data into the classroom setting." - **Science Director, Greece Central School District, NY**

Supplemental Services

Exciting Content That Inspires Curiosity

Discovery Education pairs award-winning content from our dynamic K-12 learning platform with carefully selected phenomena to develop students' 3D learning. Vetted by curriculum experts and differentiated by grade level, the phenomena and content used in *Middle School Science* mirrors the unique interests of students and helps them make relevant, lasting connections between science, the classroom, and their everyday lives. Next, we integrate additional key content from across our networks like Outrageous Acts of Science, NASA, Shark Week, NBA, MLB, Street Science, and World Wildlife Fund to enhance the standards and Disciplinary Core Ideas in *Middle School Science*.





Discovery Educator Network (DEN)

The DEN Community is one of the largest professional learning communities in the world, giving educators access to shared ideas and instructional strategies, unique professional development opportunities, and a vast network of peers that are ready to help and collaborate.

Professional Learning

Discovery Education's dynamic professional learning strengthens teacher effectiveness, empowers school leaders, and increases student engagement. From “just-in-time” professional learning resources that are short, convenient, and relevant to teachers’ daily lives to robust multi-level product training, Discovery Education offers professional learning opportunities to build the teacher competency needed to create a student-led science classroom. The following professional learning courses support implementation of *Middle School Science*:

100 Level- Getting Started with *Middle School Science*: This product training provides a foundation of practical and functional navigation of *Middle School Science*, print and digital, in its entirety in order to build teacher competency around usage in the classroom. Anytime, anywhere teaching and learning connections are made throughout the session in order to transfer content and strategies to practice.

200 Level – Students Making Sense of Phenomena: In this session, participants are engaged in a *Middle School Science* immersive experience that focuses on hands on activities. This session is designed to support teachers in transferring learning to their practice in order to engineer learning experiences that provide students with the necessary tools to create steps to plan an investigation. This learning experience will engage teachers in a variety of planning strategies that support teachers in asking the right questions to support students making sense of science. Connections to anytime, anywhere teaching and learning are made throughout the session.

300 Level – Consensus Building and Assessment Opportunities:-Completing this pathway in its entirety will allow teachers to uncover connections and extensions between *Middle School Science* consensus building and assessment opportunities. Integrating these wide range of supplemental resources will inspire innovation in instructional practices in order to solve real-world problems. Anytime, anywhere teaching and learning connections are made throughout the session in order to transfer content and strategies to practice. This session will support teachers in experiencing the process of gathering information in order to build consensus in the classroom. Participants will also gain information on how *Middle School Science* has both formative and summative assessments embedded into the learning cycle for each unit. Connections to anytime, anywhere teaching and learning are made throughout the session.

