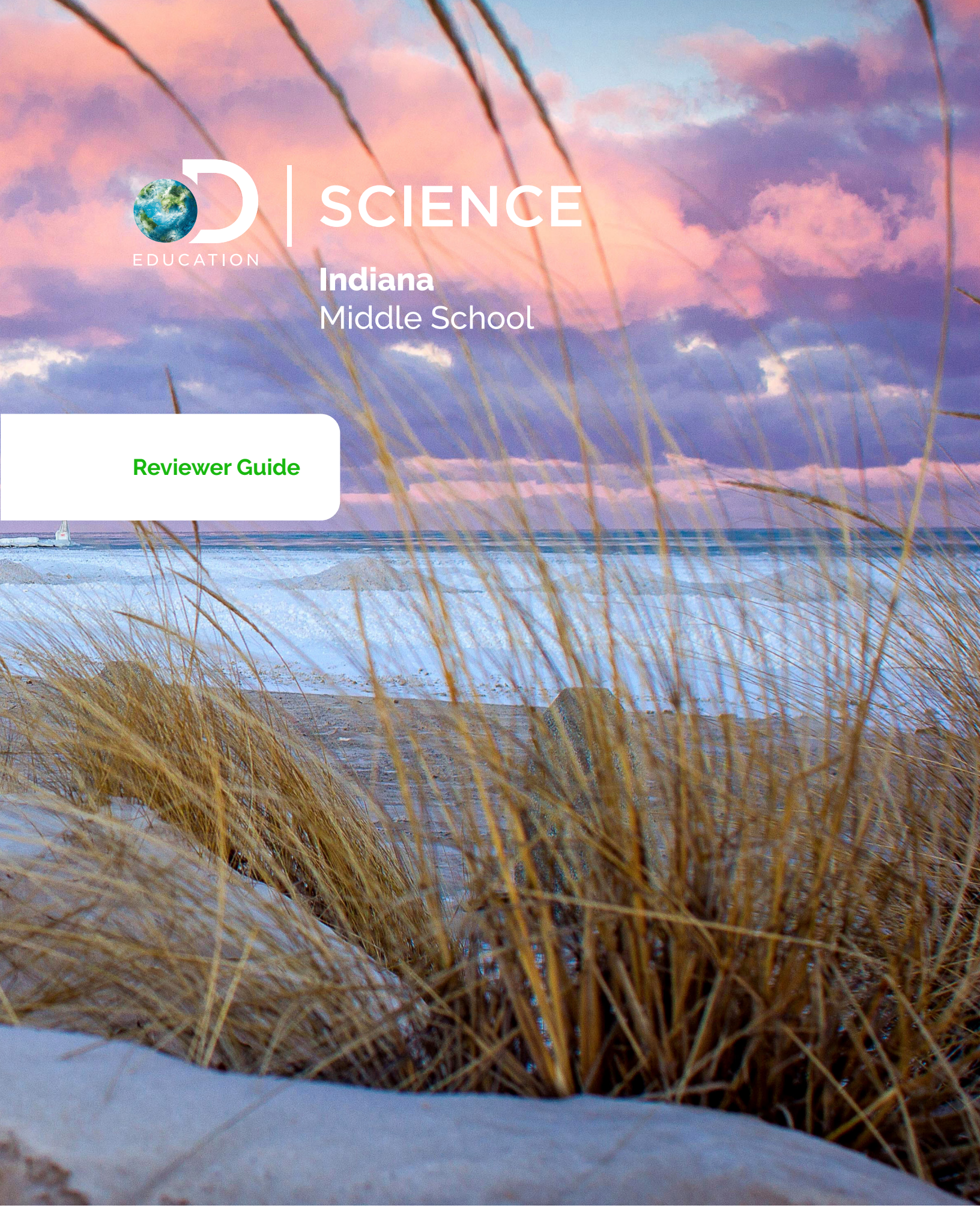

EDUCATION

SCIENCE

Indiana
Middle School

Reviewer Guide

Learn More
DiscoveryEducation.com/Indiana

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Education_Info@discoveryed.com

Table of Contents

Program Overview

Indiana Science for Middle School

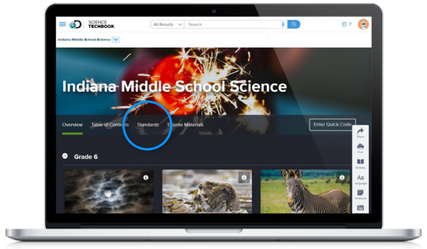
The Discovery Education Indiana Science for Middle School program is a complete, blended solution that is fully aligned to the Indiana Academic Standards for Science, and inspires students to investigate real-world phenomena, as well as build, design, and think deeply about science and engineering practices.

It provides teachers with tools and flexible resources to effectively implement and assess three-dimensional learning, including model lesson plans, ready-to-use strategies, and a global network of educators.

The adaptable, digital *Science Techbook* is delivered through the award-winning DE learning platform, and the corresponding Student and Teacher print editions and Hands-on Activity Kits seamlessly integrate digital, print, and hands-on learning using embedded QR codes.

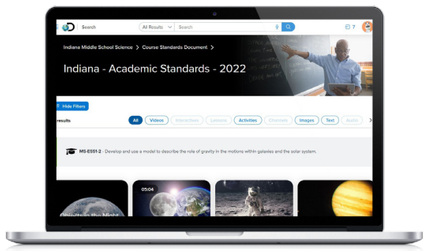
Fully Aligned to the Indiana Academic Standards for Science

To help teachers address the science standards in their instructional practice, the Discovery Education Indiana Science for Middle School program is fully aligned to the Indiana Academic Standards for Science.



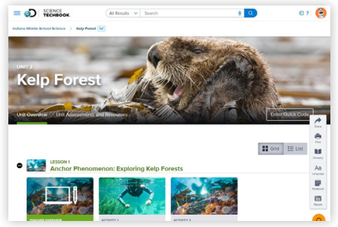
Standards are listed in their entirety as active links under the Standards tab.

The links take you directly to the section within the program that covers each standard.



Simply by selecting Go To Your Course or View Search Results, you can go directly to the concept within *Science Techbook* or utilize a wealth of other resources that cover the applicable standard.

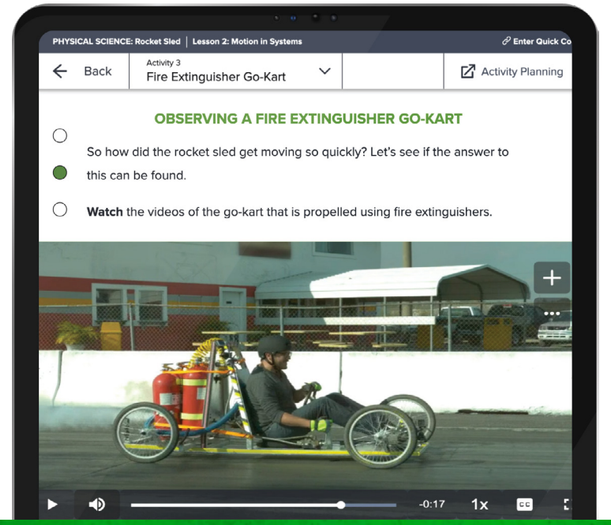
Science Techbook Overview



Discovery Education *Science Techbook* is a phenomena-driven core curriculum that puts middle school students at the center of each three-dimensional storyline, leading exhilarating investigations that uncover the mysteries of the universe.

Unit Storylines Provide a 3D Learning Framework

- Launch with **student-centered narratives** and authentic **real-world investigative phenomena** directly tied to the **Anchor Phenomena** for each unit.
- Encourage **student questioning** to drive the learning pathway.
- Provide multiple opportunities for students to **communicate their sensemaking** through the development of models and scientific explanations in the **claim, evidence, reasoning format**.
- Motivate students to **reflect** on the progression of their three-dimensional learning and sensemaking of phenomena.
- Present rich opportunities for **scientific discourse** and **peer-to-peer collaboration**.



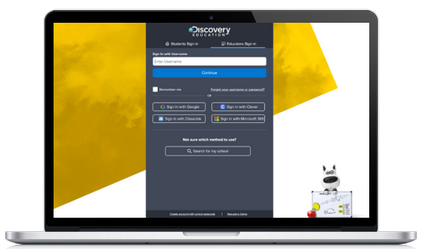
Quick Start Guide

Science Techbook

1 Sign In to Discovery Education

Go to **DiscoveryEducation.com** and select the login button at the top of the screen. Enter your credentials to start exploring a variety of tools and resources to engage students and track progress, along with additional content to enhance core *Science Techbook* curriculum.

Username: DE_INDIANA
Password: discovery

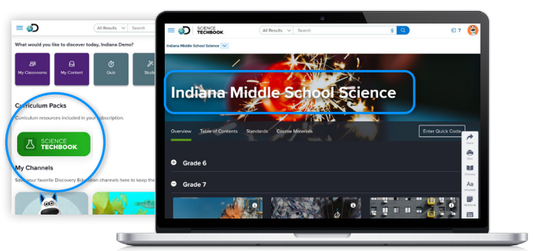


2 Select *Science Techbook*

Once inside the learning platform, locate **Curriculum Packs**. Select the *Science Techbook* tile.

Choose **Indiana Middle School Science** from the Course drop-down menu at the top of the screen.

Select the unit you wish to review from the tiles in the Overview tab. You can select Table of Contents to see a list of units broken down by Lessons and Activities with their respective resources and timing.



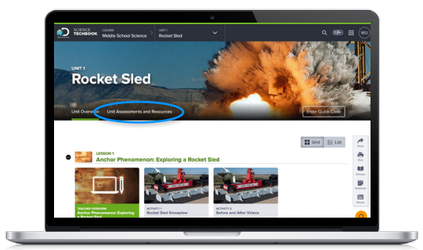
Middle School Science Course View

3 Modular Units

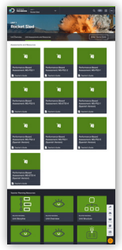
Each modular unit is structured around a **storyline model** with lessons that guide students incrementally through a series of investigations to help them make sense of anchor and investigative phenomena, culminating with a project and performance-based assessment.

In order to start with the end in mind, teachers will have access to assessments and teacher planning resources in the Unit Assessments and Resources tab.

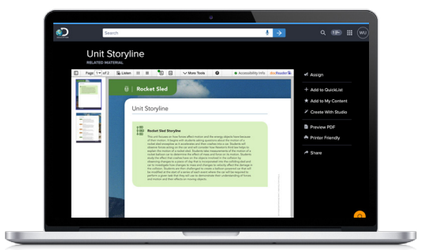
The Unit Storyline, Unit Outline, and Unit Structure show the pacing flow of each unit from Anchor Phenomenon to Unit Project. Unit Planners summarize what students will discover in each lesson, questions they may ask, assessment opportunities, and pacing.



Unit Overview



Unit Assessments and Resources

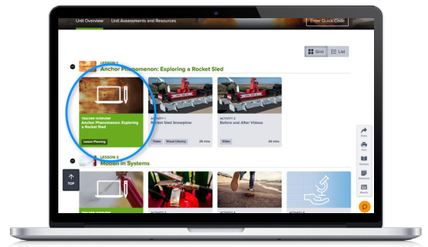


Unit Storyline

4 Anchor Phenomenon

Each lesson provides a **Teacher Overview** with planning materials that cover objectives, performance expectations, three-dimensional standards, connections to the anchor phenomenon, as well as supports for English Language Learners.

Select the first lesson from the Teacher Overview or Activity tile. Once inside the lesson, you can navigate through the unit from the drop-down menu at the top of the page.



Unit Overview

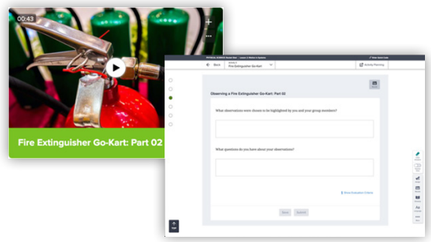
Lessons launch with a student-centered narrative introducing an exciting, **real-world anchor phenomenon** to hook students and inspire them to ask questions and construct a tentative explanation or model that will drive their investigations throughout the unit.

Activity 1 Student Narrative

Activity 1 Observing A Collision

5 Student-Driven Questions

Through recording observations and questions, collecting evidence, interpreting data, constructing explanations, creating and refining models, Science and Engineering Practices (SEPs), Crosscutting Concepts (CCCs), and Disciplinary Core Ideas (DCIs) are strategically integrated. Performance Expectations (PEs) are highlighted at the beginning of each activity.



Students Record Observations

6 Evidence, Models, Explanation

Using a **claim, evidence, reasoning** framework for responses, students construct explanations to support their claims related to the phenomena, allowing them to analyze complex text and authentic data and evaluate information to support a claim.

Students create initial models which reveal their prior knowledge. As they continue to investigate in subsequent activities, they gather additional evidence to **refine their models** and explanations, demonstrating a progression of learning through the unit.

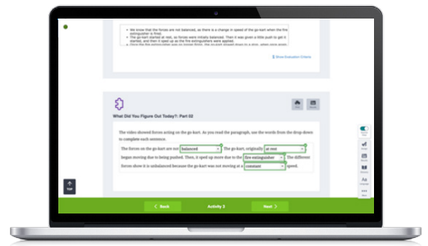
Activity 3 and Sample Initial Model

Activity 6 Sample Refined Model

Activity 11 Sample Refined Model

7 Formative Assessments

Technology-Enhanced Items (TEIs) in the lessons throughout the unit provide **immediate feedback** to both teachers and students.

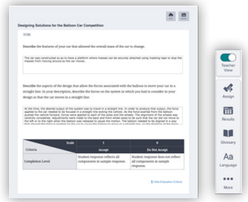


Activity 3 Formative Assessment

8 Unit Project

The final lesson in each unit contains the Unit Project. Culminating **Unit Projects** encourage students to design and generate solutions to real-world problems, conduct additional research, and reflect on their learning.

To see sample responses, toggle on the teacher view. Click on "View Evaluation Criteria" to view scoring rubrics.



Sample Scoring Rubric

10 Go Beyond the Lesson

Click on the Beyond the Lesson Resources tile at the end of each unit to access additional curated instructional content. Grouped by lesson, these video segments, activities, explorations, reading passages, and STEM projects may be used for **remediation, extension, or differentiation** according to the diverse needs and interests of your students.

Beyond the Lesson Resources

12 Literacy & Differentiation

Students strengthen literacy skills through reading passages and authentic opportunities for explanatory and argumentative writing. The core interactive text features **multiple differentiation options** in the right-hand toolbar, including text at two Lexile levels, authentically translated Spanish, and an interactive glossary. When text is highlighted, students can activate a read-aloud feature, highlight text, and take notes.

9 Performance-Based Assessments

Find digital **Performance-Based Assessments** (PBAs) in the Unit Assessment and Resources tab on the unit's main page. PBAs cover multiple Performance Expectations (PEs) and offer students opportunities to demonstrate evidence of learning for each of the performance indicators included in the unit.

Performance-Based Assessment

11 Activity Planning

Toggle on Teacher View and select the Activity Planning link in the upper right-hand corner of the lesson screen to access planning support for any activity. Here teachers can find activity objectives, standards, and **planning tools** along with **graphic organizers** and **scaffolds** for approaching learners. See suggested questions and sample responses as well as strategies for transitioning to the next lesson.

Highlight and annotate in this space to save planning notes for future reference.

Activity 2 Activity Planning

Real-World Exploration with Hands-On Science Kits

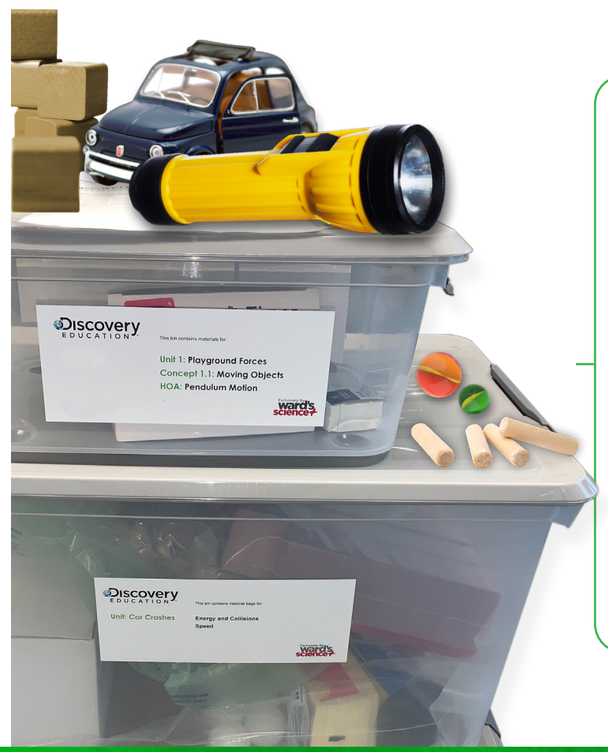
Ready-to-Teach Kits

Students will investigate the marvels of science with Hands-On Science Kits from Discovery Education. Each immersive kit is organized by concept and built to directly support the labs and activities embedded in every unit of Discovery Education *Science Techbook*. Create action-packed lessons that help young scientists build mastery of important science and engineering skills.

- Align to science and engineering practices and crosscutting concepts
- Support activities in *Science Techbook* units
- Neatly organized and identifiable by unit and activity
- Accommodate eight groups of students per class section
- Designed for single-section use with refill kits of consumables available for each unit

Hands-On Science Kit Components

Discovery Education **Hands-On Kits** include a number of instructional supports. Hands-On Activity (HOA) videos accompany many labs to model best practices for students and teachers. Every HOA includes instructions and support for teachers.



HOA Walkthrough Videos

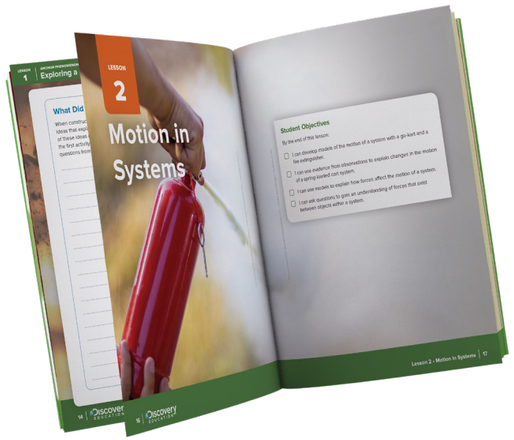
Activities Organized by Unit and Concept

Teacher Guide and Notes

Student Investigation

Print Editions

Print editions are available for teachers and students and provide a flexible option for blended instruction. Print and digital versions can be used interchangeably to support instruction in any environment.



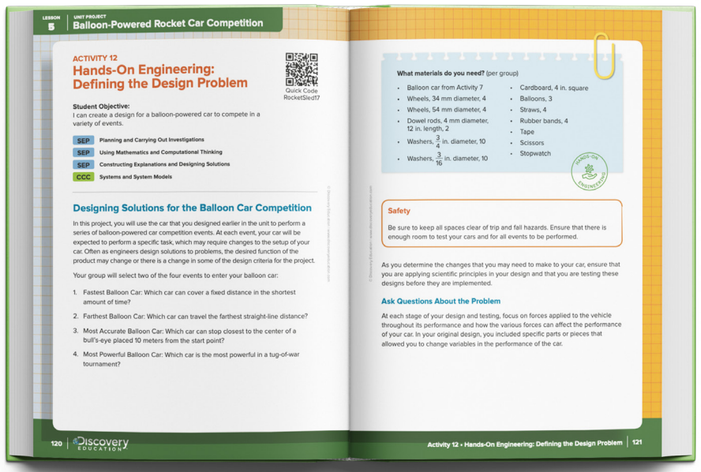
Student Print Editions

The Indiana Student Print Editions offer students an additional blended learning opportunity to master the course content. Mirroring the *Science Techbook* content in scope and sequence, they provide a perfect option for offline learning opportunities.

Students will engage in an action-packed journey to make sense of phenomena in a way that aligns with their natural curiosities. Units are organized around the storyline learning model, launching with real-world anchor phenomena to hook students and inspire them to ask important questions as they investigate and collaborate to explain, make predictions, and solve problems.

Unit Projects
Encourage students to design and generate solutions to real-world problems as well as conduct additional research related to the Anchor Phenomenon.

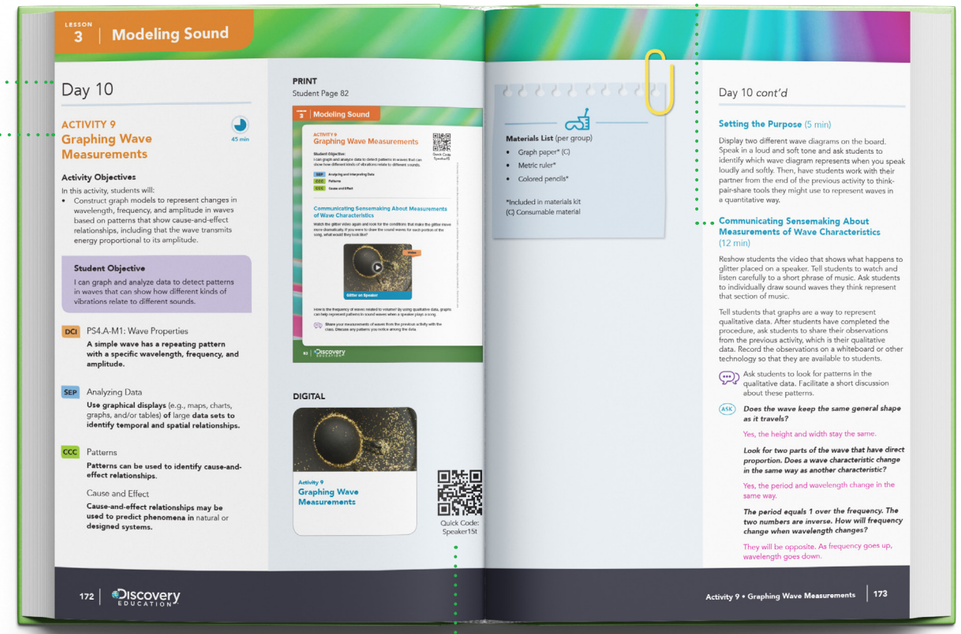
Check Points All Along the Way
Formative and Summative Assessments are embedded into the learning cycle for each unit, along with unit-level assessments, to support students in achieving proficiency in defined learning goals.



Teacher Print Editions

Days of Instruction
Instruction is presented in **45-minute segments** by day. Total recommended days of instruction can be found in the Unit Planner for each unit. Teacher-facing **three-dimensional objectives** highlight **the grade-band expectations** for the activity. Additionally, the **student-facing objective** allows for students to have a clear instructional goal without giving away the science before they have figured out the evidence in the activity.

Embedded Strategies
Teachers can access just-in-time strategies to **introduce concepts**, **provide background information**, **prompt driving questions** and **discourse**, and **support differentiation**.

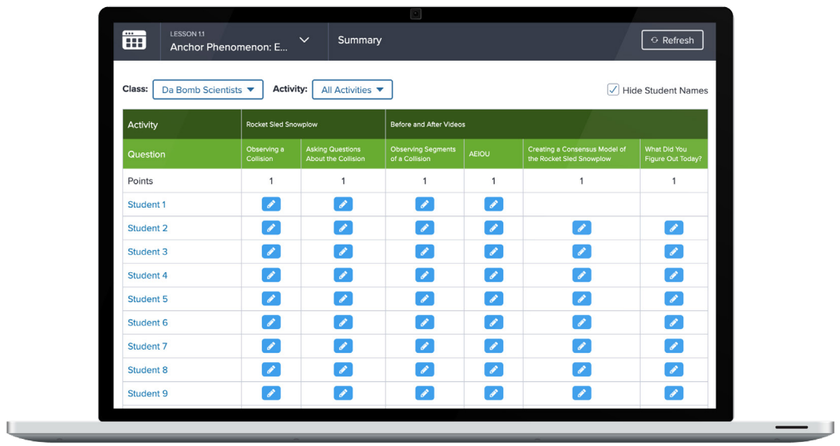


Activities
Teachers can easily access **point-of-use support** for each portion of the activity. Within each day, strategies for a variety of activity types guide teachers through recommended means of classroom implementation. **Research-based strategies** support students in synthesizing information and build educator capacity and confidence. **Scripted probing questions** and **sample student responses** guide teachers in facilitation of student sensemaking in each activity.

Quick Digital Access
Throughout the print Student and Teacher Editions, **QR codes** and **short links** provide an **easy connection to digital** in order to deepen learning through **rich media** or **assessment opportunities**.

Teacher Support for 3D Instruction

Lesson planning, differentiation, progress monitoring, and professional growth opportunities provide teachers with time-saving support.



Teacher Notes

Each unit features numerous **three-dimensional teacher notes** and **scaffolded support** that help students build proficiency.

Differentiation

Activity-specific differentiation strategies support students with varied needs in progressing through expectations to acquire the required knowledge and conceptual understanding of the scientific ideas in the unit.

Dashboard

The **online Teacher Dashboard** provides **immediate feedback to both students and teachers**, so teachers can make instructional decisions about which students need **intervention** or **remediation**.

Embedded Strategies and Support

A wide array of resources are provided at **point-of-use** to ensure educators are getting the most out of their Discovery Education resources, including **step-by-step guides**, **interactive courses**, and **easy-to-use strategies**.

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.

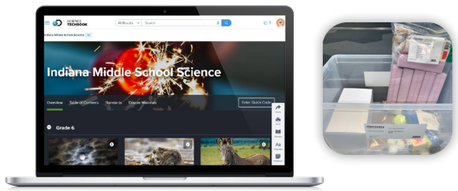
Purchase Options

Option 1: **Digital, Print, Kit**

This complete, blended solution is fully aligned to the Indiana Academic Standards for Science. It combines the best-in-class, adaptable digital *Science Techbook*, delivered through the award-winning DE platform, Student and Teacher Print Editions, and complete Hands-on Activity Kits, seamlessly integrating digital, print, and hands-on learning through embedded QR codes.

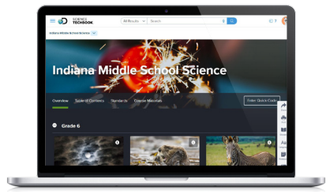
Option 2: **Digital, Print**

This blended solution is fully aligned to the Indiana Academic Standards for Science. It combines the best-in-class, adaptable digital *Science Techbook*, delivered through the award-winning DE platform, and Student and Teacher Print Editions, seamlessly integrating digital and print through embedded QR codes.



Option 3: **Digital, Kit**

This package is a blended solution that is fully aligned to the Indiana Academic Standards for Science. It combines the best-in-class, adaptable digital *Science Techbook*, delivered through the award-winning DE platform, and complete Hands-on Activity Kits organized by concept, directly supporting the labs and activities in *Science Techbook*.



Option 4: **Digital**

This package is a digital-only solution that is fully aligned to the Indiana Academic Standards for Science. It includes the best-in-class, adaptable digital *Science Techbook*, delivered through the award-winning DE platform.

Professional Learning Options

Discovery Education *Professional Learning* complements the Indiana *Science Techbook* adoption, providing foundational support as districts transition or expand their implementation of DE's digital resources.

Participants engage in unique learning experiences designed to build teacher efficacy and confidence in using digital resources to enhance science instruction. Immersive experiences bring learning to life and model the tenets of *Techbook* in action: inquiry, multimodal resources, and high-yield instructional strategies.

Each Indiana district using *Science Techbook* will receive a specific number of professional learning days as part of the adoption, which can be delivered as needed throughout the duration of the adoption cycle.

Below are the metrics used to determine the appropriate levels of professional learning that are **included free of charge**.

Total # of Student Licenses Purchased	Level of Professional Learning
0 to 99 student licenses	Continuous asynchronous online support
100 to 249 student licenses	2 hours of virtual PL + continuous asynchronous online support
250 to 499 student licenses	4 hours of virtual PL + continuous asynchronous online support
For every 500 student licenses	2 on-site day of PL + continuous asynchronous online support

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