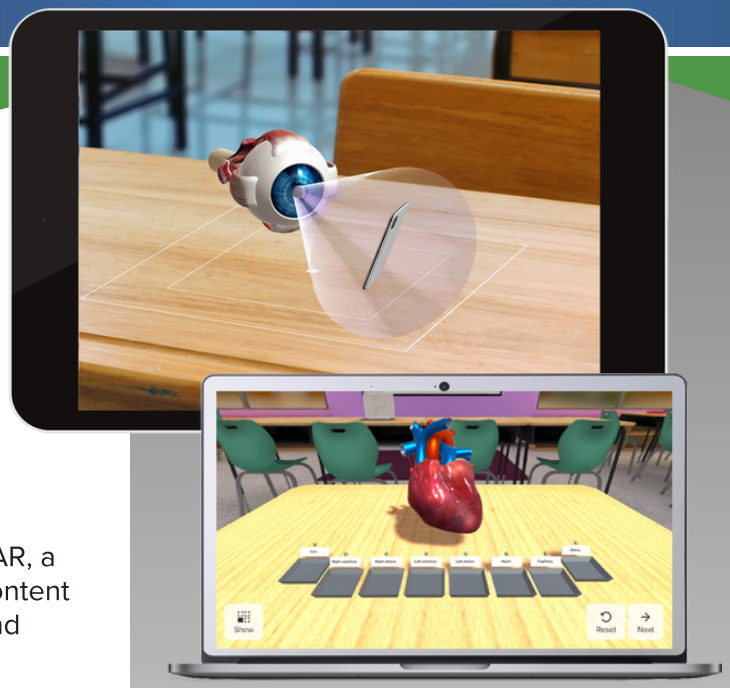
Mc Graw Hill AR

Inspire Science



See. Touch. Learn.

BRING SCIENCE TO LIFE WITH AUGMENTED REALITY

McGraw Hill, in partnership with Verizon, created McGraw Hill AR, a FREE augmented reality app that blends trusted educational content with innovative technology to make learning more engaging and meaningful across subjects.

With science, McGraw Hill AR gives students a safe, hands-on way to investigate complex concepts, like dissecting a human eye, deconstructing a V8 engine, and applying the law of reflection through an interactive mini-golf challenge.

These engaging, bite-size experiences provide a great complement to your Inspire Science curriculum. Each activity is standards-aligned and offers a consistent approach:

- **Observe**: Watch a narrated animation that introduces the concept
- **Explore**: Interact with 3D objects to deepen understanding
- **Evaluate**: Apply knowledge via interactive questions

Lesson Plans & Worksheets

Create a free account on Verizon Innovative Learning HQ to access the lesson plans (**verizon.com/learning**). There are also student worksheets that correlate to the activities, as well as enrichment and extension activities.

How to Access McGraw Hill AR

McGraw Hill AR offers two FREE experiences. The **augmented reality app** is available for tablets and smartphones and can be downloaded from the **App Store**, **Google Play** or by scanning the QR code here.

The **3D web-based experience** is available for Chromebooks, laptops, and desktops at **mharonline.com**.

Science Topics in McGraw Hill AR

- Animal Cell Lab
- Big Dig
- Bird Beak Bonanza
- Circulatory System
- Fibonacci Forest Quest
- Fireworks Factory
- Electric Escape
- Glaciers
- Human Eye
- Law of Reflection (Group activity)
- Periodic Table
- Photosynthesis
- Respiratory System
- Seismic Shake
- Simple Machines
- Sonic Shapes
- Tornado Factory
- V8 Engines

Inspire Science

McGraw Hill AR Correlations to Inspire Science ©2020

McGraw Hill AR can be used in direct support of lessons noted below. However, please see the Content Progression Chart for an exploration of how to use the app for other grade levels with modifications.

Use the links below to go directly to the app and web activities, along with their accompanying lesson plans.

- The **app link** works only on a phone or tablet with the app installed
- The **web link** works only on a laptop or Chromebook (does not work on mobile devices)
- The **lesson plan link** may prompt you to create a free account at verizon.com/learning if you don't already have one.

McGraw Hill AR	Inspire Science Units, Modules, and Lessons
Simple Machines App | Web | Lesson	**Grade 3** Unit 1: Forces Around Us, Module 1: Forces and Motion, Lesson 1: Motion, Lesson 2: Forces Can Change Motion
Bird Beak Bonanza App | Web | Lesson *Coming Soon!*	**Grade 3** Unit 2: Life Cycles and Traits, Module 2: Animals, Lesson 2: Animal Traits **Grade 4** Unit 4: Information Processing and Living Things, Module 1: Structures and Functions of Living Things, Lesson 2: Structures and Functions of Animals
Big Dig App | Web | Lesson *Coming Soon!*	**Grade 3** Unit 3: Different Environments, Module 2: Change the Environment, Lesson 1: Fossils **Grade 4** Unit 3: Our Dynamic Earth, Module 1: Earth and Its Changing Features, Lesson 2: Evidence from Rocks and Fossils
Human Eye App | Web | Lesson	**Grade 4** Unit 4: Information Processing & Living Things, Module 2: Information Processing and Transfer, Lesson 2: Roles of Animals' Eyes **Grade 8 Integrated** Unit 3: Understanding Waves, Module 2: Light, Lesson 2: Reflection and Mirrors, Lesson 3: Refraction and Lenses **Physical Science (6-8)** Unit 2: Understanding Waves, Module 2: Light, Lesson 2: Reflection and Mirrors, Lesson 3: Refraction and Lenses
Animal Cell Lab App | Web | Lesson *Coming Soon!*	**Grade 6 Integrated** Unit 1: Life: Structure & Function, Module 1: Cells and Life, Lesson 2: Cell Structure and Function **Life Science (6-8)** Unit 2: Life Structure and Function, Module 1: Cells and Life, Lesson 2: Cell Structure and Function
Circulatory System App | Web | Lesson	**Grade 6 Integrated** Unit 1: Life: Structure & Function, Module 2: Body Systems, Lesson 4: Moving Materials **Life Science (6-8)** Unit 2: Life: Structure & Function, Module: Body Systems, Lesson 4: Moving Materials
Respiratory System App | Web | Lesson	**Grade 6 Integrated** Unit 1: Life: Structure & Function, Module 2: Body Systems, Lesson 4: Moving Materials **Life Science (6-8)** Unit 2: Life: Structure & Function, Module 2: Body Systems, Lesson 4: Moving Materials
Fibonacci Forest Quest App | Web | Lesson	**Grade 6 Integrated** Unit 2: Reproduction of Organisms, Module 1: Reproduction of Organisms, Lesson 3: Reproduction and Growth of Animals, Lesson 4: Reproduction and Growth of Plants **Life Science (6-8)** Unit 3: Reproduction of Organisms, Module 1: Reproduction of Organisms, Lesson 5: Reproduction and Growth of Plants **Reveal Math Grade 5 ©2025** Unit 14: Algebraic Thinking, Lesson 14.4 Numerical Patterns
Tornado Factory App | Web | Lesson	**Grade 6 Integrated** Unit 3: Energy in the Atmosphere, Module 3: Weather and Climate, Lesson 3: Weather Patterns **Earth and Space (6-8)** Unit 2: Water and Climate, Module 2: Weather and Climate, Lesson 3: Weather Patterns

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McGraw Hill AR	Inspire Science Units, Modules, and Lessons
Glacier App | Web | Lesson	**Grade 7 Integrated** Unit 2: The Changing Earth, Module 1: Dynamic Earth, Lesson 4: Changing Earth's Surface **Earth and Space (6-8)** Unit 4: The Changing Earth, Module 2: Dynamic Earth, Lesson 4: Changing Earth's Surface
Photosynthesis App | Web | Lesson	**Grade 7 Integrated** Unit 4: Interactions within Ecosystems, Module 1: Matter and Energy in Ecosystems, Lesson 1: Photosynthesis and Cellular Respiration **Life Science (6-8)** Unit 1: Interactions within Ecosystems, Module 1: Matter and Energy in Ecosystems, Lesson 1: Photosynthesis and Cellular Respiration
Sonic Shapes App | Web | Lesson	**Grade 8 Integrated** Unit 3: Understanding Waves, Module 1: Introduction to Waves, Lesson 1: Wave Properties, Lesson 2: Mechanical Wave Interactions **Physical Science (6-8)** Unit 2: Understanding Waves, Module 1: Introduction to Waves, Lesson 1: Wave Properties, Lesson 2: Mechanical Wave Interactions
Seismic Shake App | Web | Lesson *Coming Soon!*	**Grade 8 Integrated** Unit 2: Energy and Motion, Module 2: Mechanical Energy, Lesson 1: Kinetic Energy **Physical Science (6-8)** Unit 1: Energy and Motion, Module 2: Mechanical Energy; Lesson 1: Kinetic Energy
v8 Engine App | Web | Lesson	**Physics** Unit 3: Momentum and Energy, Module 11:Thermal Energy, Lesson 2: Changes of State and Thermodynamics
Law of Reflection App | Web | Lesson	**Physics** Unit 4: Waves and Light, Module 16: Reflection & Refraction, Lesson 1: Reflection of Light
Periodic Table App | Web | Lesson	**Chemistry** Unit 1: Structure and Properties of Matter, Module 3: The Structure of the Atom, Lesson 2: Defining the Atom; Module 5: The Periodic Table and Periodic Law, Lesson 1: Development of the Modern Periodic Table, Lesson 2: Classification of Elements, Lesson 3: Periodic Trends
Fireworks Factory App | Web | Lesson	**Chemistry** Unit 1: Structure and Properties of Matter, Module 5: The Periodic Table and Periodic Law, Lesson 1: Development of the Modern Periodic Table **Physical Science** Unit 5: Reactions, Modue 18: Chemical Bonds, Lesson 1: Stability in Bonding
Electric Escape App | Web | Lesson *Coming Soon!*	**Physical Science** Unit 2: Energy, Module 4: Work and Energy, Lesson 3: Conservation of Energy; Module 5: Thermal Energy, Lesson 3: Using Thermal Energy; Module 6: Electricity, Lesson 2: Electric Current, Lesson 3: More Complex Circuits

Inspire Science

McGraw Hill AR Content Progressions Across Inspire Science ©2020

Instructions altered for lower grade bands	Original instructions can be used for these grade bands	These grade bands may be too advanced for this activity	The activity may be too advanced for these grade bands

McGraw Hill AR	Description	Inspire K-2	Inspire 3-5	Inspire 6-8	Inspire 9-12
Simple Machines	Help the astronaut complete a mission by selecting the proper simple machine for the job.		✓	✓	
Bird Beak Bonanza	Explore different environments to learn how the shape of a bird's beak is suited to its food source and survival.		✓	✓	
Big Dig	Excavate fossils to uncover clues about ancient environments.		✓	✓	
Human Eye	See how the eye processes information, then dissect it to explore its parts.		✓	✓	
Animal Cell Lab	Dissect an animal cell and identify organelles by function.		✓	✓	✓
Circulatory System	Watch how blood carries nutrients and gases through the body, then dissect the system to explore the heart and vessels.		✓	✓	✓
Respiratory System	Watch how air flows through the body, then dissect the system to explore its parts.		✓	✓	✓
Fibonacci Forest Quest	Find Fibonacci patterns hidden across the forest.		**Modification**: Use in grades 4-5. May be too advanced for grade 3.	✓	✓
Tornado Factory	Use simulator to create tornadoes and observe the impact they have on different environments.			✓	✓

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McGraw Hill AR	Description	Inspire K-2	Inspire 3-5	Inspire 6-8	Inspire 9-12
Photosynthesis	Watch plants turn light into energy, then dissect a plant cell to explore a leaf's cross-section.		✓	✓	✓
Glacier	Watch a glacier carve and shape the land, then click on glacial features to learn how they form.		**Modification**: Use in grade 5. May be too advanced for grades 3-4.	✓	✓
Sonic Shapes	Use sound waves on shaped plates to reveal patterns at different frequencies.		**Modification**: Use in grade 5. May be too advanced for grades 3-4.	✓	✓
Seismic Shake	Build and test quake-proof structures on a shake table.		**Modification**: Use in grade 5. May be too advanced for grades 3-4.	✓	✓
v8 Engine	See how a V8 engine transforms energy, then pull it apart to learn how each part powers motion		**Modification**: Use in grade 5. May be too advanced for grades 3-4.	✓	✓
Law of Reflection	See how angles affect a ball's path, then test skills in mini golf using the law of reflection.			✓	✓
Periodic Table	Learn how the periodic table is organized, then explore a town center to find elements using clues.			✓	✓
Fireworks Factory	Discover the chemistry that makes fireworks explode with color.		**Modification**: Use in grade 5. May be too advanced for grades 3-4.	✓	✓
Electric Escape	Solve steampunk electrical puzzles to unlock the safe.			✓	✓