BrainPOP Science | Indiana

Prepare and empower middle school students for the

ILEARN Science

BrainPOP Science's investigations and engineering projects provide standards-aligned ways to nurture middle schoolers' innate scientific curiosity—while simultaneously preparing them for their assessments.

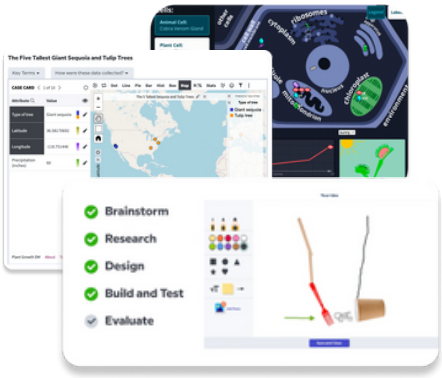
ILEARN Science Multidimensional Expectation

Students are expected to know more than the standards and scientific principles. They need to be able to "practice the practices."

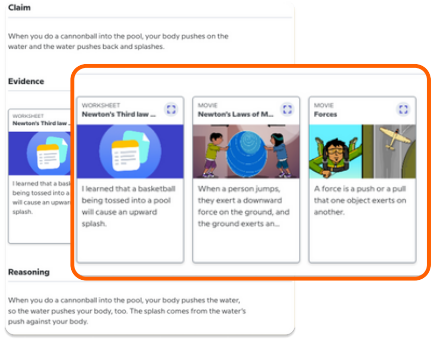
Students will need to **build explanations, use evidence to craft arguments, and obtain, evaluate, and communicate information.**

Students will navigate technology-enhanced question types (TEIs), which are constructed to engage students' critical thinking and problem-solving skills.

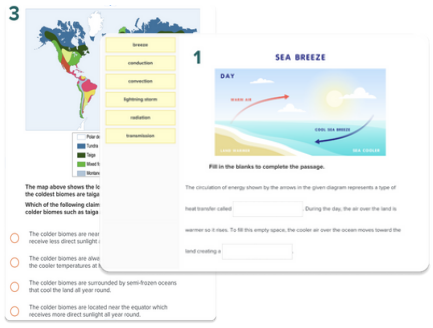
Students' Experience on BrainPOP Science



✓ **Standards-aligned investigations and real-world engineering projects** are designed to integrate science practices—like computational thinking and the design process—with scientific concepts.



✓ **The CER writing process is embedded into BrainPOP Science:** it guides students through collecting observations, deciding which become evidence, and writing (and supporting) an evidence-based claim.



✓ Technology-enhanced question types and multidimensional science content are **built into BrainPOP Science's formative assessments—** giving students consistent practice in both all year long.

PROMISING 2023 ESSA LEVEL III

Meet the needs of the Indiana Academic Standards

Did you know that BrainPOP Science's approach is proven to improve students' evidence-based writing by up to 20%?

Learn more at brainpop.com/classroom solutions/research

BrainPOP for grades 3-8 | Indiana

Get students comfortable and confident for the

Indiana's Learning Evaluation Assessment Readiness Network

Each BrainPOP lesson—whether it's in social studies, science, math, ELA, or the arts—includes movies and activities that give students practice in the knowledge and skills they'll need to feel confident on test day.

ILEARN expectation for students

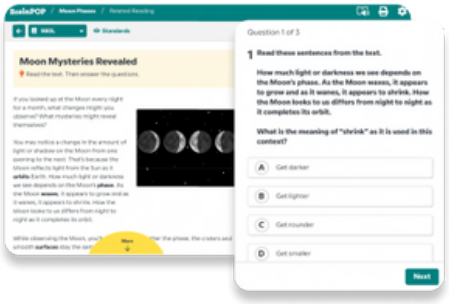
Answer Technology-Enhanced Item (TEI) question types— which students often find more challenging.

TEIs require that students think critically and deeply—and use problem-solving skills—to answer questions.

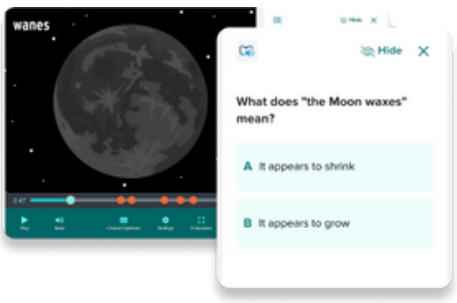
Demonstrate a wide breadth of **content knowledge and comprehension and technological skills** in a limited amount of time.

Students' experience on BrainPOP (for grades 3-8)

Auto-graded learning activities and embedded assessments mirror TEIs in format and rigor, letting students practice their technological skills, demonstrate their understanding, and build testing confidence all year long.



From evaluating sources to extracting key details and interpreting unfamiliar words, **students develop, practice, and apply skills** alongside everything they learn.



BrainPOP's cross-curricular approach combines **content instruction and skill practice into one time-saving lesson** to make the most of every instructional minute.

Meet the needs of the Indiana Academic Standards

Explore how BrainPOP aligns to your standards here.

Main Criteria: Indiana Academic Standards Integrated STEM 2023 (Math/Sci/Tech)		
Subject: Technology Education		
Grades: K, 1, 2, 3, 4, 5, 6, 7, 8		
Indiana Academic Standards Integrated STEM 2023 (Math/Sci/Tech)		
Technology Education		
Grade: K - Adopted: 2023		
Grade/Course		Kindergarten Integrated STEM
Domain		Communication and Collaboration
Indicator	K.CC.1.	Making Observations
Indicator	K.CC.2.	Communicate the solution(s) of a problem/analysis either orally, visually, or in writing, which may include process steps, findings, or conclusions. **BrainPOP Jr.** Making Observations Blogs Digital Etiquette
Indiana Academic Standards Integrated STEM 2023 (Math/Sci/Tech)		
Technology Education		
Grade: 1 - Adopted: 2023		
Grade/Course		GRADE 1 Integrated STEM
Domain		Communication and Collaboration
Indicator	1.CC.1.	Collect and document evidence to share information with others in pictures, diagrams, or text. **BrainPOP Jr.** Making Observations Blogs Digital Etiquette
Indicator	1.CC.2.	Communicate the solution(s) of a problem/analysis either orally, visually or in writing, which may include process steps, findings, or conclusions. **BrainPOP Jr.** Blogs Digital Etiquette
Grade/Course		GRADE 1 Integrated STEM
Domain		Data Analysis and Measurement
Indicator	1.DM.1.	Estimate to determine appropriate measurement tools to use and apply measurements (e.g., time, length) defined in grade level content standards to analyze real-world scenarios. **BrainPOP Jr.** Making Observations Science Tools
Indicator	1.DM.2.	Construct visual representations defined in grade level content standards (e.g., bar graphs, charts) to determine patterns. **BrainPOP Jr.** Pictographs Making Observations
Grade/Course		GRADE 1 Integrated STEM
Domain		Applications and Modeling
Indicator	1.AM.2.	Apply symbols and relationships (e.g., place value, , operations) to represent physical or conceptual objects (e.g., letters or numbers may represent objects). **BrainPOP Jr.** Basic Adding Basic Subtraction Counting Back Counting On
Indiana Academic Standards Integrated STEM 2023 (Math/Sci/Tech)		
Technology Education		
Grade: 2 - Adopted: 2023		

Grade/Course		GRADE 2 Integrated STEM
Domain		Communication and Collaboration
Indicator	2.CC.1.	Collect and document evidence to share information with others in pictures, diagrams, or text. **BrainPOP Jr.** Making Observations Line Graphs Blogs Digital Etiquette E-mail
Indicator	2.CC.2.	Communicate the solution(s) of a problem/analysis either orally, visually or in writing, which may include process steps, findings, or conclusions. **BrainPOP Jr.** Blogs Computational Thinking Digital Etiquette E-mail
Grade/Course		GRADE 2 Integrated STEM
Domain		Data Analysis and Measurement
Indicator	2.DM.1.	Estimate to determine appropriate measurement tools and apply measurements (e.g., time, money) defined in grade level content standards to analyze real-world scenarios. **BrainPOP Jr.** Centimeters, Meters, Kilometers Inches and Feet
Indicator	2.DM.2.	Construct visual representations defined in grade level content standards (e.g., bar graphs, charts) to determine patterns. **BrainPOP Jr.** Pictographs Tally Charts and Technologys and Bar Graphs Making Observations
Grade/Course		GRADE 2 Integrated STEM
Domain		Inquiry-Based Approaches and Problem Solving
Indicator	2.IPS.1.	From observations, ask questions, plan and conduct investigations to answer questions or solve problems. **BrainPOP Jr.** Engineering and Design Process
Indicator	2.IPS.2.	Decompose a complex problem into smaller steps or sequences to evaluate (e.g., what should be done first, second) appropriate to grade-level content. **BrainPOP Jr.** Computational Thinking Engineering and Design Process
Indicator	2.IPS.3.	Determine one or more viable solutions using data and information to resolve a given scenario. **BrainPOP Jr.** Computational Thinking Engineering and Design Process
Grade/Course		GRADE 2 Integrated STEM
Domain		Applications and Modeling
Indicator	2.AM.2.	Apply symbols and relationships (e.g., place value, , operations) to represent physical or conceptual objects (e.g., letters or numbers may represent objects). **BrainPOP Jr.** Adding Three or More Numbers Adding and Subtracting Tens Basic Adding Basic Subtraction Comparing Numbers Counting Back Counting On
Grade/Course		GRADE 2 Integrated STEM
Domain		Information and Digital Literacy

Indicator	2.IDL.2.	Review and compile information from multiple sources to solve a problem. **BrainPOP Jr.** Engineering and Design Process
Indiana Academic Standards Integrated STEM 2023 (Math/Sci/Tech)		
Technology Education		
Grade: 3 - Adopted: 2023		
Grade/Course		GRADE 3 Integrated STEM
Domain		Communication and Collaboration
Indicator	3.CC.1.	Collect and document evidence to share information with others in charts, tables, presentations, or text. **BrainPOP** Internet Search Comparing Prices Graphs Line Plots **BrainPOP Jr.** Line Graphs Pictographs
Indicator	3.CC.2.	Communicate the solution(s) of a problem/analysis either orally, visually, or in writing, including process steps, findings, or conclusions. **BrainPOP Jr.** Blogs Computational Thinking Digital Etiquette E-mail **BrainPOP** Blogs Problem Solving Using Tables
Indicator	3.CC.3.	Identify and implement roles and responsibilities to collaborate in various group settings (i.e., online, onsite and/or hybrid) and situations. **BrainPOP** Social Media
Indicator	3.CC.4.	Communicate specific constraints and criteria established for an investigation. **BrainPOP** Blogs **BrainPOP Jr.** Blogs Digital Etiquette E-mail
Grade/Course		GRADE 3 Integrated STEM
Domain		Data Analysis and Measurement
Indicator	3.DM.1.	Determine appropriate measurement tools to perform measurements and calculations (e.g., fractions, pounds, temperature, perimeter, area) defined in grade level content standards to analyze real-world scenarios. **BrainPOP** Converting Fractions to Decimals **BrainPOP Jr.** Making Observations Science Tools Temperature

Indicator	3.DM.2.	Construct visual representations defined in grade level content standards (e.g., bar graphs, pictographs) to determine patterns, using digital tools when possible and feasible. **BrainPOP Jr.** Pictographs Tally ChArts and Technologys and Bar Graphs Making Observations **BrainPOP** Bar Graphs Graphs Problem Solving Using Tables
Indicator	3.DM.3.	Evaluate reasonableness of observations, results, and solutions throughout processes. **BrainPOP** Problem Solving Using Tables
Indicator	3.DM.4.	Choose data sets and analysis methods to support the inquiry process. **BrainPOP** Problem Solving Using Tables
Grade/Course		GRADE 3 Integrated STEM
Domain		Inquiry-Based Approaches and Problem Solving
Indicator	3.IPS.1.	Plan and conduct an investigation to answer a specific question or solve a specific problem. **BrainPOP** Engineering Design Process
Indicator	3.IPS.2.	Decompose a complex problem into smaller steps or sequences to evaluate (e.g., what should be done first, second). **BrainPOP Jr.** Computational Thinking **BrainPOP** Problem Solving Using Tables Computational Thinking Critical Reasoning Multi-step Word Problems
Indicator	3.IPS.3.	Determine one or more viable solutions using data and information to resolve a scenario given criteria and constraints. **BrainPOP Jr.** Computational Thinking Engineering and Design Process **BrainPOP** Problem Solving Using Tables Engineering Design Process
Grade/Course		GRADE 3 Integrated STEM
Domain		Applications and Modeling
Indicator	3.AM.1.	Apply symbols and relationships (e.g., equations) to represent physical or conceptual objects (e.g., letters, numbers, or displays of color may represent objects). **BrainPOP Jr.** Adding Three or More Numbers Adding and Subtracting Tens Basic Adding Basic Subtraction Comparing Numbers **BrainPOP** Multi-Step Word Problems Place Value Rounding
Indicator	3.AM.2.	Create a model showing a subsystem as part of a larger system. **BrainPOP** Problem Solving Using Tables Engineering Design Process
Grade/Course		GRADE 3 Integrated STEM

Domain		Information and Digital Literacy
Indicator	3.IDL.1.	Identify and evaluate the impact of technology when selecting tools to solve a problem in order to determine the most effective solution. **BrainPOP** Hybrid Cars Plastic
Indicator	3.IDL.2.	Review and compile information from multiple sources to solve a problem. **BrainPOP Jr.** Engineering and Design Process **BrainPOP** Internet Search
Indicator	3.IDL.3.	Describe how solutions or technologies are adapted to meet the changing needs and wants of individuals or communities. **BrainPOP Jr.** Engineering and Design Process **BrainPOP** Nikola Tesla Thomas Edison
Indiana Academic Standards Integrated STEM 2023 (Math/Sci/Tech)		
Technology Education		
Grade: 4 - Adopted: 2023		
Grade/Course		GRADE 4 Integrated STEM
Domain		Communication and Collaboration
Indicator	4.CC.1.	Collect and document evidence to share information with others in charts, tables, presentations, or text. **BrainPOP** Internet Search Comparing Prices Graphs Line Plots
Indicator	4.CC.2.	Communicate the solution(s) of a problem/analysis either orally, visually, or in writing, including process steps, findings or conclusions. **BrainPOP** Blogs Problem Solving Using Tables
Indicator	4.CC.3.	Identify and implement roles and responsibilities to collaborate in various group settings (i.e., online, onsite and/or hybrid) and situations. **BrainPOP** Social Media
Indicator	4.CC.4.	Communicate specific constraints and criteria established for an investigation. **BrainPOP** Blogs
Grade/Course		GRADE 4 Integrated STEM
Domain		Data Analysis and Measurement
Indicator	4.DM.1.	Determine appropriate measurement tools to perform measurements and calculations (e.g., fractions, pounds, temperature, perimeter, area) defined in grade level content standards to analyze real-world scenarios. **BrainPOP** Converting Fractions to Decimals

Indicator	4.DM.2.	Construct visual representations defined in grade level content standards (e.g., bar graphs, charts, line plots, frequency tables) to determine patterns, using digital tools when possible and feasible. **BrainPOP** Problem Solving Using Tables Bar Graphs Graphs
Indicator	4.DM.3.	Evaluate reasonableness of observations, results, and solutions throughout processes. **BrainPOP** Problem Solving Using Tables
Indicator	4.DM.4.	Choose data sets and analysis methods to support the inquiry process. **BrainPOP** Problem Solving Using Tables
Grade/Course		GRADE 4 Integrated STEM
Domain		Inquiry-Based Approaches and Problem Solving
Indicator	4.IPS.1.	Plan and conduct an investigation to answer a specific question or solve a specific problem. **BrainPOP** Engineering Design Process
Indicator	4.IPS.2.	Decompose a complex problem into smaller steps or sequences to evaluate (e.g., what should be done first, second). **BrainPOP** Problem Solving Using Tables Computational Thinking Critical Reasoning Multi-step Word Problems
Indicator	4.IPS.3.	Determine one or more viable solutions using data and information to resolve a scenario given criteria and constraints. **BrainPOP** Problem Solving Using Tables Engineering Design Process
Grade/Course		GRADE 4 Integrated STEM
Domain		Applications and Modeling
Indicator	4.AM.1.	Apply symbols and relationships (e.g., place value, equations, operations) to represent physical or conceptual objects (e.g., letters, numbers, or displays of color may represent objects). **BrainPOP** Multi-Step Word Problems Place Value Rounding
Indicator	4.AM.2.	Create a model showing a subsystem as part of a larger system. **BrainPOP** Problem Solving Using Tables Engineering Design Process
Grade/Course		GRADE 4 Integrated STEM
Domain		Information and Digital Literacy
Indicator	4.IDL.1.	Identify and evaluate the impact of technology when selecting tools to solve a problem in order to determine the most effective solution. **BrainPOP** Hybrid Cars Plastic
Indicator	4.IDL.2.	Review and compile information from multiple sources to solve a problem. **BrainPOP** Internet Search

Indicator	4.IDL.3.	Describe how solutions or technologies are adapted to meet the changing needs and wants of individuals or communities. **BrainPOP** Nikola Tesla Thomas Edison
Indiana Academic Standards Integrated STEM 2023 (Math/Sci/Tech)		
Technology Education		
Grade: 5 - Adopted: 2023		
Grade/Course		GRADE 5 Integrated STEM
Domain		Communication and Collaboration
Indicator	5.CC.1.	Collect and document evidence to share information with others in charts, tables, presentations, or text. **BrainPOP** Internet Search Comparing Prices Graphs Line Plots
Indicator	5.CC.2.	Communicate the solution(s) of a problem/analysis either orally, visually, or in writing, including process steps, findings or conclusions. **BrainPOP** Blogs Problem Solving Using Tables
Indicator	5.CC.3.	Identify and implement roles and responsibilities to collaborate in various group settings (i.e., online, onsite and/or hybrid) and situations. **BrainPOP** Social Media
Indicator	5.CC.4.	Communicate specific constraints and criteria established for an investigation. **BrainPOP** Blogs
Grade/Course		GRADE 5 Integrated STEM
Domain		Data Analysis and Measurement
Indicator	5.DM.2.	Construct visual representations defined in grade level content standards (e.g., bar graphs, charts, line plots) to determine patterns, using digital tools when possible and feasible. **BrainPOP** Problem Solving Using Tables
Indicator	5.DM.3.	Evaluate reasonableness of observations, results, and solutions throughout processes. **BrainPOP** Problem Solving Using Tables
Indicator	5.DM.4.	Choose data sets and analysis methods to support the inquiry process. **BrainPOP** Problem Solving Using Tables
Grade/Course		GRADE 5 Integrated STEM
Domain		Inquiry-Based Approaches and Problem Solving
Indicator	5.IPS.1.	Plan and conduct an investigation to answer a specific question or solve a specific problem. **BrainPOP** Engineering Design Process
Indicator	5.IPS.2.	Decompose a complex problem into smaller steps or sequences to evaluate (e.g., what should be done first, second). **BrainPOP** Problem Solving Using Tables Computational Thinking Critical Reasoning Multi-step Word Problems

Indicator	5.IPS.3.	Determine one or more viable solutions using data and information to resolve a scenario given criteria and constraints. **BrainPOP** Problem Solving Using Tables Engineering Design Process
Grade/Course		GRADE 5 Integrated STEM
Domain		Applications and Modeling
Indicator	5.AM.1.	Apply symbols and relationships (e.g., place value, equations, operations) to represent physical or conceptual objects (e.g., letters, numbers, or displays of color may represent objects). **BrainPOP** Multi-Step Word Problems Place Value Rounding
Indicator	5.AM.2.	Create a model showing a subsystem as part of a larger system. **BrainPOP** Problem Solving Using Tables Engineering Design Process
Grade/Course		GRADE 5 Integrated STEM
Domain		Information and Digital Literacy
Indicator	5.IDL.1.	Identify and evaluate the impact of technology when selecting tools to solve a problem in order to determine the most effective solution. **BrainPOP** Hybrid Cars Plastic
Indicator	5.IDL.2.	Review and compile information from multiple sources to solve a problem. **BrainPOP** Internet Search
Indicator	5.IDL.3.	Describe how solutions or technologies are adapted to meet the changing needs and wants of individuals or communities. **BrainPOP** Nikola Tesla Thomas Edison
Indiana Academic Standards Integrated STEM 2023 (Math/Sci/Tech)		
Technology Education		
Grade: 6 - Adopted: 2023		
Grade/Course		GRADE 6 Integrated STEM
Domain		Communication and Collaboration
Indicator	6.CC.1.	Collect and document evidence to share information with others in charts, tables, presentations, or text. **BrainPOP** Internet Search Blogs Comparing Prices Graphs Line Plots
Indicator	6.CC.2.	Communicate the solution(s) of a problem/analysis either orally, visually, or in writing, including process steps, findings, or conclusions. **BrainPOP** Blogs Problem Solving Using Tables
Indicator	6.CC.3.	Identify, implement, and assign roles and responsibilities to collaborate in various group settings (i.e., online, onsite and/or hybrid) and situations. **BrainPOP** Social Media

Indicator	6.CC.4.	Communicate specific constraints and criteria established for an investigation. **BrainPOP** Blogs
Indicator	6.CC.5.	Evaluate competing solutions or arguments in a systematic way based on qualitative and/or quantitative evidence. **BrainPOP** Problem Solving Using Tables
Grade/Course		GRADE 6 Integrated STEM
Domain		Data Analysis and Measurement
Indicator	6.DM.1.	"Use multiple systems of measurement (i.e., standard and metric) and data sets (e.g., plots, tables, graphs, charts) defined in grade level content standards to analyze real-world scenarios and the mathematical relationships represented by the data. **BrainPOP** Bar Graphs Customary Units Line Plots Metric Units Metric vs. Customary Problem Solving Using Tables
Indicator	6.DM.2.	Construct visual representations (e.g., bar graphs, charts) to determine patterns or statistical analysis (e.g., mean, median) defined in grade level content standards. "Construct visual representations (e.g., bar graphs, charts) to determine patterns or statistical analysis (e.g., mean, median) defined in grade level content standards. **BrainPOP** Bar Graphs Graphs Mean, Median, Mode, and Range Statistics" Problem Solving Using Tables
Indicator	6.DM.3.	Use approximations and evaluate reasonableness of observations, results, and solutions throughout processes. **BrainPOP** Problem Solving Using Tables Equations with Variables Word Problems
Indicator	6.DM.4.	Choose data sets and analysis methods to support the inquiry process. **BrainPOP** Problem Solving Using Tables
Grade/Course		GRADE 6 Integrated STEM
Domain		Inquiry-Based Approaches and Problem Solving
Indicator	6.IPS.1.	Conduct or extend an original investigation, analyze results, iterate, and revise to improve the design. **BrainPOP** Engineering Design Process
Indicator	6.IPS.2.	Determine one or more viable solutions using data and information to resolve a scenario given criteria and constraints. **BrainPOP** Engineering Design Process Problem Solving Using Tables Computational Thinking Critical Reasoning Multi-step Word Problems
Indicator	6.IPS.3.	Integrate processes and methodologies across disciplines based on content specific standards to incorporate multiple sources of evidence to support defining a solution. **BrainPOP** Internet Search
Grade/Course		GRADE 6 Integrated STEM
Domain		Applications and Modeling

Indicator	6.AM.1.	Interpret and evaluate relationships among sets of data (e.g., distance-time graph). **BrainPOP** Problem Solving Using Tables
Indicator	6.AM.2.	Use coordinate planes or number lines to examine information and represent solutions. **BrainPOP** Coordinate Plane
Indicator	6.AM.3.	Use models to compare and contrast different systems and explain the factors that influence them. **BrainPOP** Engineering Design Process
Indicator	6.AM.4.	Use and revise models to describe, test, and predict phenomena or solutions. **BrainPOP** Engineering Design Process
Grade/Course		GRADE 6 Integrated STEM
Domain		Information and Digital Literacy
Indicator	6.IDL.1.	Identify and evaluate the impact of technology when selecting tools to solve a problem in order to determine the most effective solution. **BrainPOP** Biofuels Hybrid Cars Nanotechnology Plastic
Indicator	6.IDL.2.	Review and compile information from multiple sources to solve a problem. **BrainPOP** Internet Search
Indicator	6.IDL.3.	Describe how solutions or technologies are adapted to meet the changing needs and wants of individuals or communities. **BrainPOP** Nanotechnology Nikola Tesla Thomas Edison
Indiana Academic Standards Integrated STEM 2023 (Math/Sci/Tech)		
Technology Education		
Grade: 7 - Adopted: 2023		
Grade/Course		GRADE 7 Integrated STEM
Domain		Communication and Collaboration
Indicator	7.CC.1.	Collect and document evidence to share information with others in multiple media forms. **BrainPOP** Blogs Internet Search Comparing Prices Graphs Line Plots
Indicator	7.CC.2.	Communicate the solution(s) of a problem/analysis either orally, visually, or in writing, including process steps, findings, or conclusions. **BrainPOP** Blogs Problem Solving Using Tables
Indicator	7.CC.3.	Identify, implement, and assign roles and responsibilities to collaborate in various group settings (i.e., online, onsite and/or hybrid) and situations. **BrainPOP** Social Media
Indicator	7.CC.4.	Communicate specific constraints and criteria established for an investigation. **BrainPOP** Blogs

Indicator	7.CC.5.	Evaluate competing solutions or arguments in a systematic way based on qualitative and/or quantitative evidence. **BrainPOP** Problem Solving Using Tables Engineering Design Process
Grade/Course		GRADE 7 Integrated STEM
Domain		Data Analysis and Measurement
Indicator	7.DM.1.	Use multiple systems of measurement (i.e., standard and metric) and data sets (e.g., plots, tables, graphs, charts) defined in grade level content standards to analyze real-world scenarios and the mathematical relationships represented by the data. **BrainPOP** Bar Graphs Customary Units Line Plots Metric Units Metric vs. Customary Problem Solving Using Tables
Indicator	7.DM.2.	Construct visual representations (e.g., bar graphs, charts) to determine patterns or statistical analysis (e.g., mean, median) defined in grade level content standards. **BrainPOP** Bar Graphs Graphs Mean, Median, Mode, and Range Statistics Problem Solving Using Tables
Indicator	7.DM.3.	Use approximations and evaluate reasonableness of observations, results, and solutions throughout processes. **BrainPOP** Equations with Variables Word Problems
Indicator	7.DM.4.	Choose data sets and analysis methods to support the inquiry process. **BrainPOP** Problem Solving Using Tables
Grade/Course		GRADE 7 Integrated STEM
Domain		Inquiry-Based Approaches and Problem Solving
Indicator	7.IPS.1.	Conduct or extend an original investigation, analyze results, iterate, and revise to improve the design. **BrainPOP** Engineering Design Process
Indicator	7.IPS.2.	Determine one or more viable solutions using data and information to resolve a scenario given criteria and constraints. **BrainPOP** Engineering Design Process
Indicator	7.IPS.3.	Integrate processes and methodologies across disciplines based on content specific standards to incorporate multiple sources of evidence to support defining a solution. **BrainPOP** Engineering Design Process Internet Search
Grade/Course		GRADE 7 Integrated STEM
Domain		Applications and Modeling
Indicator	7.AM.1.	Interpret and evaluate relationships among sets of data (e.g., distance-time graph). **BrainPOP** Problem Solving Using Tables
Indicator	7.AM.2.	Use coordinate planes or number lines to examine information and represent solutions. **BrainPOP** Coordinate Plane
Indicator	7.AM.3.	Use models to compare and contrast different systems and explain the factors that influence them. **BrainPOP** Engineering Design Process

Indicator	7.AM.4.	Use and revise models to describe, test, and predict phenomena or solutions. **BrainPOP** Engineering Design Process
Grade/Course		GRADE 7 Integrated STEM
Domain		Information and Digital Literacy
Indicator	7.IDL.1.	Identify and evaluate the impact of technology when selecting tools to solve a problem in order to determine the most effective solution. **BrainPOP** Biofuels Hybrid Cars Nanotechnology Plastic
Indicator	7.IDL.2.	Review and compile information from multiple sources to solve a problem. **BrainPOP** Internet Search
Indicator	7.IDL.3.	Describe how solutions or technologies are adapted to meet the changing needs and wants of individuals or communities. **BrainPOP** Nanotechnology Nikola Tesla Thomas Edison
Indiana Academic Standards Integrated STEM 2023 (Math/Sci/Tech)		
Technology Education		
Grade: 8 - Adopted: 2023		
Grade/Course		GRADE 8 Integrated STEM
Domain		Communication and Collaboration
Indicator	8.CC.1.	Collect and document evidence to share information with others in multiple media forms. **BrainPOP** Blogs Internet Search Comparing Prices Graphs Line Plots
Indicator	8.CC.2.	Communicate the solution(s) of a problem/analysis either orally, visually, or in writing, including process steps, findings, or conclusions. **BrainPOP** Blogs Problem Solving Using Tables
Indicator	8.CC.3.	Identify, implement, and assign roles and responsibilities to collaborate in various group settings (i.e., online, onsite and/or hybrid) and situations. **BrainPOP** Social Media
Indicator	8.CC.4.	Communicate specific constraints and criteria established for an investigation. **BrainPOP** Blogs
Indicator	8.CC.5.	Evaluate competing solutions or arguments in a systematic way based on qualitative and/or quantitative evidence. **BrainPOP** Problem Solving Using Tables
Grade/Course		GRADE 8 Integrated STEM
Domain		Data Analysis and Measurement

Indicator	8.DM.1.	Use multiple systems of measurement (i.e., standard and metric) and data sets (e.g., plots, tables, graphs, charts) defined in grade level content standards to analyze real-world scenarios and the mathematical relationships represented by the data. **BrainPOP** Bar Graphs Customary Units Line Plots Metric Units Metric vs. Customary
Indicator	8.DM.2.	Construct visual representations (e.g., bar graphs, charts) to determine patterns or statistical analysis (e.g., mean, median) defined in grade level content standards. **BrainPOP** Bar Graphs Graphs Mean, Median, Mode, and Range Statistics
Indicator	8.DM.3.	Use approximations and evaluate reasonableness of observations, results, and solutions throughout processes. **BrainPOP** Equations with Variables Word Problems
Indicator	8.DM.4.	Choose data sets and analysis methods to support the inquiry process. **BrainPOP** Problem Solving Using Tables
Grade/Course		GRADE 8 Integrated STEM
Domain		Inquiry-Based Approaches and Problem Solving
Indicator	8.IPS.1.	Conduct or extend an original investigation, analyze results, iterate, and revise to improve the design. **BrainPOP** Engineering Design Process
Indicator	8.IPS.2.	Determine one or more viable solutions using data and information to resolve a scenario given criteria and constraints. **BrainPOP** Problem Solving Using Tables Engineering Design Process
Indicator	8.IPS.3.	Integrate processes and methodologies across disciplines based on content specific standards to incorporate multiple sources of evidence to support defining a solution. **BrainPOP** Internet Search Engineering Design Process
Grade/Course		GRADE 8 Integrated STEM
Domain		Applications and Modeling
Indicator	8.AM.1.	Interpret and evaluate relationships among sets of data (e.g., distance-time graph). **BrainPOP** Problem Solving Using Tables
Indicator	8.AM.2.	Use coordinate planes or number lines to examine information and represent solutions. **BrainPOP** Coordinate Plane
Indicator	8.AM.3.	Use models to compare and contrast different systems and explain the factors that influence them. **BrainPOP** Engineering Design Process
Indicator	8.AM.4.	Use and revise models to describe, test, and predict phenomena or solutions. **BrainPOP** Engineering Design Process
Grade/Course		GRADE 8 Integrated STEM
Domain		Information and Digital Literacy

Indicator	8.IDL.1.	Identify and evaluate the impact of technology when selecting tools to solve a problem in order to determine the most effective solution. **BrainPOP** Biofuels Hybrid Cars Nanotechnology Plastic
Indicator	8.IDL.2.	Review and compile information from multiple sources to solve a problem. **BrainPOP** Internet Search
Indicator	8.IDL.3.	Describe how solutions or technologies are adapted to meet the changing needs and wants of individuals or communities. **BrainPOP** Nanotechnology Nikola Tesla Thomas Edison