



**Transform  
misconceptions into  
understanding  
through inquiry-based  
exploration**

 **Britannica® PATHWAYS: SCIENCE™**

 **Britannica**  
Digital Learning

A new, high-quality digital science resource  
that builds a solid foundation and prepares  
students for exams and learning

# Pathways: Science™ targets commonly held misconceptions

Winner of the Teachers' Choice Award, Britannica® Pathways: Science™ is a unique teaching and learning resource, which offers 100 highly flexible lessons in biology, chemistry and physics. It extends learning with valuable opportunities for students to make predictions using prior knowledge and dig for evidence using Britannica's safe, curated research sources.

Through enquiry-based exploration, students confront common misconceptions in science and transform them into solid, fact-based understanding. Students can analyse information, draw evidence-based conclusions, and write arguments to support their claims. Pathways: Science is the perfect addition to a school's STEM programme, supplementing live experiments and any school's science and curriculum goals.

When exploring through a Pathways lesson, students build up a body of key foundational knowledge and concepts while evaluating evidence, using scientific vocabulary, creating arguments and expressing how their ideas have developed through research.

FEATURES	<ul style="list-style-type: none"> <li>• 100 interactive lessons across 10 key science topics</li> <li>• Consistent and systematic process: Predict - Investigate - Conclude</li> <li>• Teacher module with full lesson plans and guidelines</li> <li>• Curriculum search to all graded lessons</li> </ul>	<ul style="list-style-type: none"> <li>• Individual student logins</li> <li>• Compatible with all tablets, desktops and whiteboards</li> <li>• Video clips, images and trusted articles with reader support tools</li> <li>• Practical experience in computerised research and writing</li> </ul>
BENEFITS	<ul style="list-style-type: none"> <li>• Supplements core science instruction and enhances any science programme</li> <li>• Challenges and corrects student misconceptions</li> <li>• Minimises teacher planning time and simplifies student progress tracking</li> <li>• Supports the flipped classroom approach</li> </ul>	<ul style="list-style-type: none"> <li>• Supports BYOD programme</li> <li>• Global curriculum support including UK, IB and NGSS</li> <li>• Develop critical thinking, creativity and evaluation skills</li> <li>• Caters to visual learners and supports differentiation</li> </ul>

Easily adapts to any science programme	Support for differentiation	Time-saving teacher resources
<ul style="list-style-type: none"> <li>• Self-paced learning</li> <li>• Practical experience in on-line research and writing</li> <li>• Video clips, images and articles</li> </ul>	<ul style="list-style-type: none"> <li>• Text to speech articles</li> <li>• Built-in dictionary</li> <li>• Three reading levels</li> <li>• Printable worksheets for offline option</li> </ul>	<ul style="list-style-type: none"> <li>• Ready-to-use ideas and examples</li> <li>• Teachers can select topics for large or small groups or for independent work</li> <li>• Formative and summative assessment</li> </ul>



# Consistent three-step process promotes critical thinking and science knowledge



Systematic methodology engages students in productive explorations



# 1

## Predict

At the beginning of each lesson, students are asked to tap into their prior knowledge about the topic.

They are then confronted with a challenging science activity and are asked to predict which explanation best answers a related question.

Once students choose an idea, they can analyse it for key words, phrases, and claims to focus their search for evidence.

$$a^2 - b^2 = (a + b)(a - b)$$



Perfect for STEM programmes!

# 2

## Investigate

Using articles, images, and videos, presented in an interactive carousel, students research the topic and dig for evidence that will support or contradict their original predictions.

Student notes are captured dynamically and saved in an interactive graphic organiser for later retrieval.

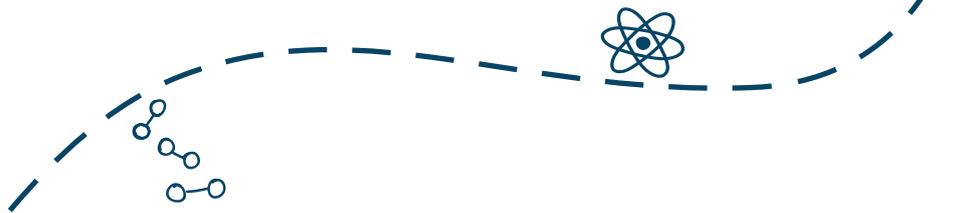
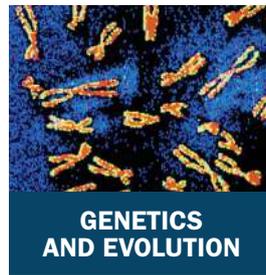
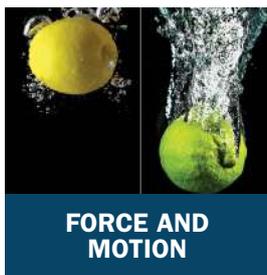
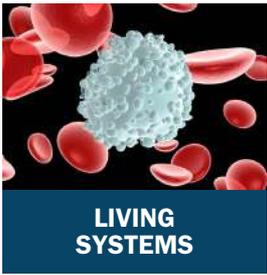
# 3

## Conclude

Students analyse and draw conclusions based on the evidence they have collected. Their critical-thinking skills enable them to identify and write about the correct idea and explain why any misconceptions they previously held are incorrect.

## 100 lessons across 10 key science topics

Lessons support science curricula around the world and Pathways: Science™ is a powerful tool to help students to succeed in STEM education.



*“Pathways lets me differentiate because it’s meant for everyone. Every single topic is a match with what we are teaching.”*

**Colleen Tombs, Science Teacher, Rahway Middle School**





 Britannica® **PATHWAYS: SCIENCE™**

**Explore. Discover. Learn.**



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