

SCIENCE
NORTH



SCIENCE
NORD



Ripley's
Believe It or Not!®

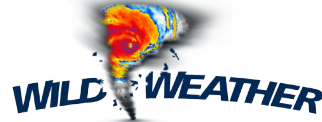


Who We Are

Science North and Dynamic Earth, two world-renowned science centres, are located in Sudbury, Ontario, Canada. In addition to entertaining and educating visitors on-site, we develop and sell exhibits, multimedia productions, traveling exhibits, and large-format films for science centres, museums, zoos, aquariums, visitor centres and corporate centres worldwide.

For more than two decades our team has been one of the world's leading creators of award-winning, high impact visitor experiences for people of all ages. By harnessing the creative strength of our science communication experts, we create unparalleled experiences for your facilities.

The Science of Ripley's Believe It or Not! ® is the latest in Science North's portfolio. Our other traveling exhibits are:



Our Team

Science North has 100 full-time staff and 150 hourly/contract employees. By operating two of Canada's largest science centers and delivering numerous projects to our external client base, we are able to tap into a treasure trove of knowledge, skills and operational expertise. Our creative and innovative team is recognized for pushing the limit of what our imaginations can achieve. We immerse ourselves in the details and stories of projects to create fun learning experiences for your visitors. We are truly excited by each new project, and understand the importance of communicating and connecting with visitors in a fun and interactive way.

For *The Science of Ripley's Believe It or Not! ®* traveling exhibit we have partnered with Ripley Entertainment Inc. to create a high impact, hands-on exhibit. For over 90 years Ripley Entertainment Inc. has entertained visitors around the world, with more than 80 exciting attractions in 10 countries, along with best-selling books, a network television series in more than 70 countries, and the longest continuously published newspaper comic in history. Cartoonist and adventurer Robert Ripley started it all in 1918 when he began drawing his daily feature, *Believe It or Not!*



Science North is an agency of the Ontario Ministry of Culture.

Science Advisors

Ms. Heather Dorman, BScH, MSc, BEd, MSc - Genetic Counselor (CCGC, CGC), Genetic Counseling Services, Sudbury Outpatient Centre, Health Sciences North
Mr. Tyler Fleet and Mrs. Jill Fleet, Sword Swallowers Association International
Dr. Carita Lannér, PhD - Associate Professor of Molecular Genetics, Northern Ontario School of Medicine
Ms. Susan Maltby, Conservator, Maltby & Associates Inc. - Adjunct Faculty, Museum Studies Programme/ Faculty of Information, University of Toronto
Mr. Edward Meyer - Vice President, Exhibits and Archives, Ripley Entertainment
Mr. Alan Nursall - Principal, NEXT Exhibits, MSc Meteorology and Climatology
Dr. Glenn Parker, PhD – Professor of Wildlife Parasitology, Laurentian University
Dr. David Pearson, PhD - Co-Director Science Communication, Earth Sciences Department Laurentian University
Dr. Albrecht Schulte-Hostedde, PhD - Associate Professor, Canada Research Chair (Tier 2), Applied Evolutionary Ecology, Laurentian University

Exhibit Specifications

LANGUAGE

French & English (Canadian dictionary) or English only (US dictionary) text panels and AV media
SIZE: 6,000 sq ft (600 sq m)
**This exhibit can be expanded by up to 2,000 sq ft to fit larger halls.*

RENTAL FEE: \$185,000 USD

Plus in-bound shipping and insurance
Three-month (12 week) rental period

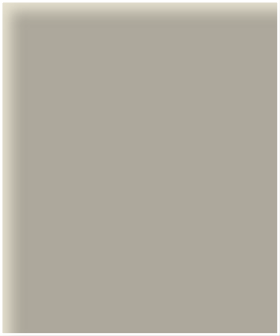
ADDITIONAL MATERIALS

Educational Guide
Marketing Guide
Technical Operations Guide
Learning Impact Research Report

RETAIL OPPORTUNITIES

The Ripley’s Believe It or Not! ® brand provides a strong retail opportunity for venues hosting *The Science of Ripley’s Believe It or Not! ®*. Ripley Entertainment Inc., through its subsidiary Ripley Publishing, offers an array of bestselling books on various topics at a range of price points. Custom and standard retail fare from a list of approved vendors will nicely complement venue retail facilities. Leaseholders will be required to sign a retail agreement directly with Ripley Entertainment Inc. and submit a 10% royalty on all branded item sales.

For additional information regarding leasing *The Science of Ripley’s Believe It or Not! ®* or other Science North traveling exhibits, please contact:



Katie Clarke
Senior Manager,
International Sales
T: 705.522.3701 ext. 308
E: @sciencenorth.ca



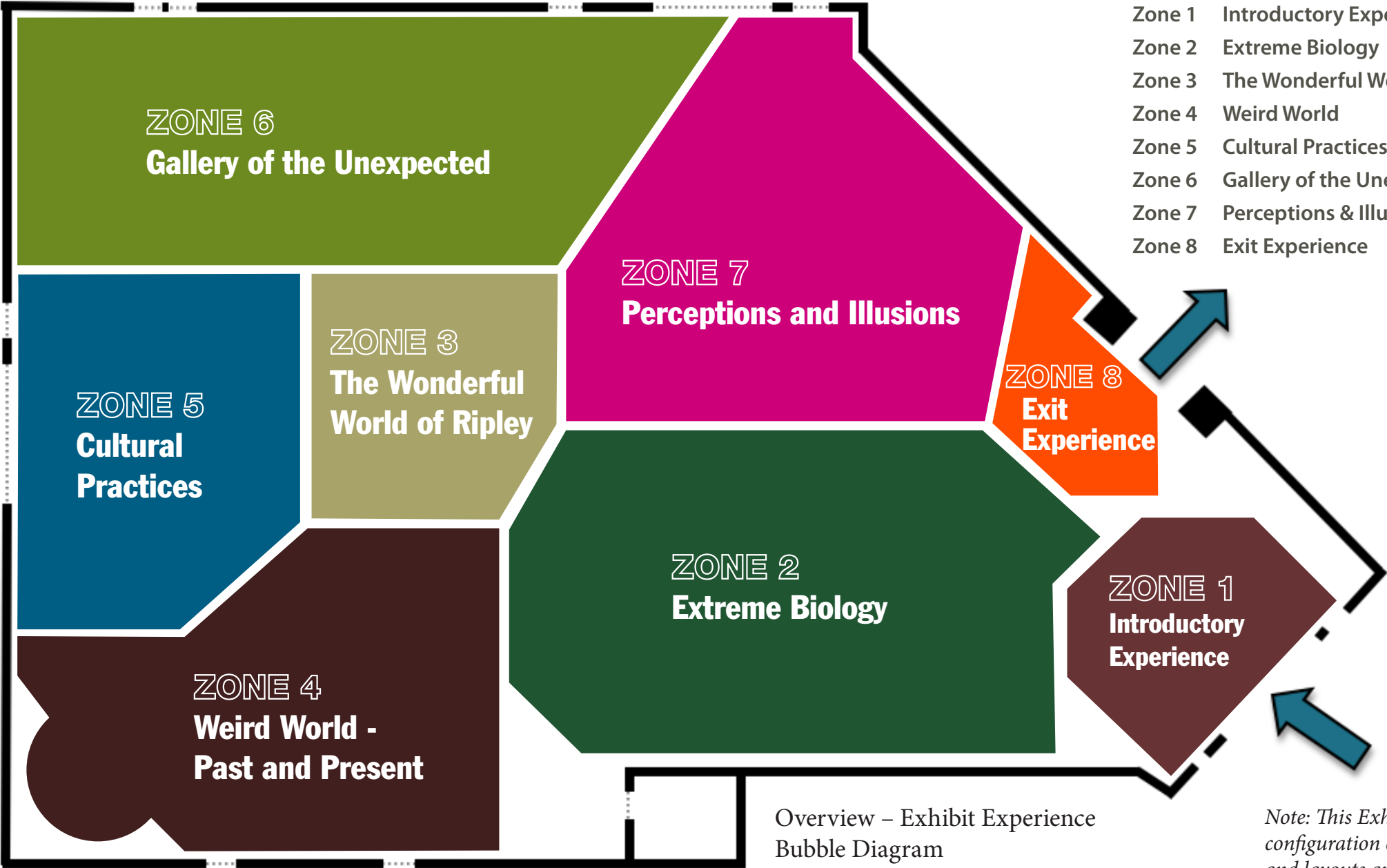
For additional information or questions related to the exhibit’s development and content, please contact:



Darla Stoddart
Senior Scientist, Projects
T: 705.522.3701 ext. 330
E: stoddart@sciencenorth.ca

The Science of Ripley's Believe It or Not!® Exhibit Plan

Table of Contents







Zone 1	Introductory Experience	5
Zone 2	Extreme Biology	6
Zone 3	The Wonderful World of Ripley	11
Zone 4	Weird World	12
Zone 5	Cultural Practices	16
Zone 6	Gallery of the Unexpected	18
Zone 7	Perceptions & Illusions	20
Zone 8	Exit Experience	23

Note: This Exhibit Plan represents a sample configuration of this exhibition; exhibits and layouts are subject to change.



ZONE 1 Introductory Experience




Prepare for an incredible journey, where the unexplainable will be explained by science! The entrance experience sets the stage for the rest of the exhibit, through representative artifacts and photo opportunities, where you will become completely immersed in the world of *The Science of Ripley's Believe It or Not!*®

Exhibit Name	What's the Big Idea?	Key Elements	Visitor Experience
Exhibition Title Sign	<p>Begin your immersion into the scientific discoveries within <i>The Science of Ripley's Believe It or Not!</i>®</p>	<ul style="list-style-type: none"> Large exhibition title sign and logo Recognition of exhibit sponsors and donors Wooden carved statue from Thailand 	<p>The title sign introduces the exhibition. A stunning Buddha statue, carved in the 1930s from a solid teak log, is representative of the array of unusual artifacts that can be explored within the exhibit.</p>
The Big Chair <div>    </div>	<p>Sit on the giant Chippendale chair and observe that you seem to instantly shrink in size!</p>	<ul style="list-style-type: none"> Large wooden Chippendale chair, with footstool for ease of access Large graphic introducing the main theme of the exhibition 	<p>Enjoy a photo opportunity while you sit on a giant chair that was manufactured for one of the world's tallest people.</p>
Incredible Items <div>  </div>	<p>Become introduced to the concept of science-themed, unusual objects that you will encounter throughout the exhibit.</p>	<ul style="list-style-type: none"> Unusual and remarkable objects from the Ripley collection representative of content within the exhibit. Examples are a replica python made from metal washers and a large Albert Einstein image made entirely from toast! 	<p>Be prepared to marvel at how science can unlock secrets and explain the unexplainable. An eclectic collection of Ripley objects from around the world, including large iconic pieces, is your teaser into the extraordinary topics that you will encounter in <i>The Science of Ripley's Believe It or Not!</i>®.</p> <p>Enjoy a photo opportunity beside the Peel Trident car, one of the world's smallest road-worthy production automobiles.</p>



Zone 2: Extreme Biology

Feel dwarfed by some of the world’s largest organisms, and invaded by some of the smallest, as you discover the science behind our planet’s most extreme biology. Challenge yourself to find 10 tiny animals, check out cow hairballs and the largest plant seeds in the world, and get a glimpse into your future at the *Age Yourself* exhibit.

Exhibit Name	What’s the Big Idea?	Key Elements	Visitor Experience
<p><i>Astonishing Animals: Explore the science behind the most extreme animals to have ever lived. Visitors will learn more about the world’s smallest, largest and most bizarre animals. Learn why snakes could grow so large 60 million years ago, but not today. Learn the biological explanations behind oddities caused by genetic mutations and birth anomalies.</i></p>			
<p>Crawl-Through Snake and Snakes of Today</p> <p>    </p>	<p>Crawl through a life-size model of the prehistoric snake, <i>Titanoboa</i>, and revel at its incredible size!</p>	<ul style="list-style-type: none"> • Life-size replica of a <i>Titanoboa</i>, with viewing windows along its length and multiple entrances/exits • Soundscape of a snake’s internal functions such as breathing and heartbeat • Motion sensor and button-triggered experiences that illuminate internal anatomy • Authentic snake skeleton and skin specimens • X-rays of unusual objects snakes have swallowed such as a light bulb and an electric blanket • Associated <i>Ripley’s Believe It or Not!</i>® cartoon. 	<p>Crawl through a life-size replica of <i>Titanoboa</i> – the largest species of snake to have ever lived. Hear the snake breathe, and be immersed in the sounds of its digestive system as you learn more about its anatomy.</p> <p>Discover that <i>Titanoboa</i> was at least as long as a school bus, and as heavy as a car. It grew to about 50 feet (15 m) long and three feet (1 m) in diameter.</p> <p>Learn that it was the warm climate in Colombia 60 million years ago that allowed <i>Titanoboa</i> to grow much larger than today’s snakes. Today’s climate is much too cold for snakes to reach that size.</p> <p>Examine specimens of today’s largest snakes and compare their size to <i>Titanoboa</i>’s size. Find out that although drastically different in size, <i>Titanoboa</i>’s internal anatomy wasn’t that different from today’s snakes.</p> <p><i>Believe It or Not!:</i> Green anacondas are today’s heaviest snakes, at up to 550 pounds (225 kg) and reticulated pythons are today’s longest snakes at up to 33 feet (10 m).</p>



Zone 2: Extreme Biology

Exhibit Name	What's the Big Idea?	Key Elements	Visitor Experience
Scavenger Hunt For the World's Smallest Animals	Challenge yourself and your friends as you hunt for life-size models of some of the world's smallest animals and be amazed at how small these creatures really are!	<ul style="list-style-type: none">• A desk setting with minute, but life-size, creatures hidden amongst the set• Interpretive graphics revealing information about each animal• Lift and drop panels showing the locations of the animals if visitors have difficulty finding them	<p>Search among the objects on the desk to find 10 tiny animals, which represent the five key vertebrate groups - fish, amphibian, reptile, bird and mammal.</p> <p>Learn more about the unique adaptations of each creature.</p> <p>Learn where each animal lives and an amazing fact about it. Compare the size of the world's smallest animals to everyday items within the exhibit, and to items you have with you, to discover that many are the size of the coins in your pocket – or even smaller!</p> <p><i>Believe It or Not!:</i> The Etruscan shrew's heart beats 1,500 times per minute, the fastest heartbeat of any warm-blooded animal! The bee hummingbird whirs about on its tiny wings, visiting as many as 1,500 flowers daily in search of nectar - one for every minute in a day!</p>



Zone 2: Extreme Biology

Exhibit Name	What's the Big Idea?	Key Elements	Visitor Experience
<p>Animal Genetic Curiosities – Color Mutations and Congenital Birth Anomalies</p> <p>  </p>	<p>Discover the science behind what makes an animal albino or melanistic. Find out how congenital birth anomalies occur while learning that not all genetic differences and mutations are negative.</p>	<ul style="list-style-type: none">• Interactive exhibit to demonstrate why some unusual color mutations are not beneficial to an animal, while others pose no harm• Taxidermied albino specimen such as a porcupine• Taxidermied specimen of a two-faced calf, alongside its skeleton• Video station	<p>View a real specimen of an animal with a color condition such as albinism, and observe that genetic differences can affect an animal's visible traits. Discover that albinism and melanism are sometimes caused by mutations, and are sometimes inherited conditions.</p> <p>Search for the hidden animals in the forest scene and see how color can affect an animal's ability to remain camouflaged in its environment.</p> <p>View specimens with genetic abnormalities and learn what were once considered “freaks of nature” are now explainable through the science of genetics. Find out that every living thing has genetic mutations, many without any negative impact.</p> <p>Pose for a photo with a two-faced calf. Examine a skeleton to get a closer look at the effects this condition had on the calf's bones.</p> <p>Watch videos of animals surviving and thriving, in spite of being born with various congenital birth anomalies.</p>






Zone 2: Extreme Biology



Exhibit Name	What’s the Big Idea?	Key Elements	Visitor Experience
“Kitchen Sink” of Curioddities	Everything but the kitchen sink! In this challenging and mysterious exhibit you will touch and identify unusual objects from the natural world.	<ul style="list-style-type: none">• Oversized “kitchen sink” filled with unusual natural objects, a mixture of touchable and untouchable specimens• Microscope to view slide of algae• Interactive with touch boxes	<p>Put your deductive thinking skills to the test to identify these unusual, yet completely natural objects. Discover each object’s unbelievable identity, unearthing how it was formed in nature. Specimens include a coco-de-mer seed, cow hairballs and a rock made by lightning.</p> <p>Reach into the touch boxes and try to guess what object you are feeling. Can you determine which is a horn and which is an antler? Can you tell the difference between normal and fossilized wood?</p> <p>Learn that the reason the objects in the touch boxes feel different, even though they’re similar, is because of the material they’re made of. For example, an antler is made of true bone while a horn is bone surrounded by a coating of keratin, the same material that your fingernails are made of.</p>
Extreme Biology - Multiplayer Quiz	<p>Humans are great hosts to parasites, but no need to invite them to dinner! Learn the diversity of organisms that can invade the human body in this highly engaging, multiplayer visitor experience.</p> <p>Nature is full of bizarre organisms. Are there such things as ‘zombie ants’ or flowers that smell like death? Test your knowledge of some of Earth’s most extreme survival strategies by engaging your mind in this quiz.</p>	<ul style="list-style-type: none">• Two-part computer quiz with images and video on a large monitor• Button stations for three players	<p>Participate in this lively two-part computer quiz about parasites and other strange organisms. Press buttons to answer the quiz questions, competing against others or playing on your own.</p> <p>The quiz reveals how certain organisms have unique adaptations including body shapes, behaviors and even scents that allow them to survive in specific environments.</p> <p>Learn the roles parasites play within our bodies, and that many of the organisms that live on or in our body will not harm us.</p>



Zone 2: Extreme Biology

Exhibit Name	What's the Big Idea?	Key Elements	Visitor Experience
<i>Phenomenal People: Explore the fascinating science related to human biology. Discover the extremes of human growth through the stories of the world's tallest people. Get a unique glimpse of your future self as you learn about the process of aging and find out how tall you might be when you grow up.</i>			
<p>Tall Tales – Robert Wadlow and How Tall Will You Be?</p> <p>    </p>	<p>Explore the science that causes people to be extremely tall, and see the world from their eyes.</p>	<ul style="list-style-type: none"> • Photo opportunity with animated Robert Wadlow figure • Authentic Robert Wadlow shoe • Newspaper article about Robert Wadlow's death • Touchscreen video station featuring footage of Robert Wadlow • A periscope showing the view from the perspective of a very tall person • “How Tall Will You Be?” touchscreen interactive 	<p>Meet Robert Wadlow, who grew to 8 feet 11 inches (2.7 m) tall. Step up to the life-size figure of Mr. Wadlow, and be surprised when he stands up from his chair in front of you.</p> <p>Explore the conditions that cause unusual growth in people such as Robert Wadlow.</p> <p>See how the world looks from the perspective of a very tall person.</p> <p>Measure yourself on the height chart and use the ‘How Tall Will You Be?’ computer station to find out how tall you might grow to be as an adult.</p> <p><i>Believe It or Not!:</i> When Robert Wadlow died at the age of 22, he was still growing.</p>
<p>Age Yourself!</p>	<p>Look into your future! This interactive provides a visual of your possible future appearance, depending on your lifestyle choices.</p>	<ul style="list-style-type: none"> • Touchscreen computer interactive that generates images of visitors at intervals into the future • Associated <i>Ripley's Believe It or Not!</i>® cartoon 	<p>Take a snapshot of your face, input a few variables and then view images of what you may look like at intervals into the future. Email your “future you” pictures so you can enjoy them at home.</p> <p>View a Ripley's cartoon of Charles Charlesworth – the boy who died of “old age” at the age of seven. Learn the science behind Charles' condition known as progeria, a genetic condition that causes rapid premature aging.</p>



Zone 3: The Wonderful World of Ripley

Mr. Ripley was an explorer extraordinaire who traveled the world, collecting artifacts and stories from the remarkable people and places he encountered. Hear from the adventurer himself about what drove his curiosity into the unknown, and see some of the actual objects that he collected. Browse through decades of cartoons by, letters for, and video of the man behind the Ripley Entertainment Inc. franchise.

Exhibit Name	What’s the Big Idea?	Key Elements	Visitor Experience
Meet Mr. Ripley	Celebrate the life and legacy of Robert Ripley, the explorer and adventurer!	<ul style="list-style-type: none">• Historical video station with adventure and discovery footage of Mr. Ripley• Archival photos of Robert Ripley’s travels and collections• “Cabinet of Curioddities” containing various personal effects and items related to Mr. Ripley• Travel crates for seating	<p>Witness what drove Robert Ripley to explore and collect artifacts from all over the world. Watch some of his most fascinating experiences and amazing adventures through archival video.</p> <p>Open drawers to reveal Robert Ripley’s original passports, and original letters and telegrams written to him from famous people. Check out some of his favorite artifacts from his personal collection.</p> <p>Explore artifacts collected by Ripley himself and read about the stories behind them.</p>
Radio Ripley	Enter a past era while you gather around a radio, a very popular communication medium in Robert Ripley’s day, and listen to audio clips of Mr. Ripley with guests on his radio show.	<ul style="list-style-type: none">• Old-fashioned radio, which can be tuned to a selection of Mr. Ripley’s archival radio broadcast segments• Photos related to the featured audio stories• Interpretive graphics about Robert Ripley’s radio show	<p>Tune a radio to listen to some of Robert Ripley’s most popular <i>Believe It or Not!</i> radio show broadcasts, which reached millions of people.</p> <p>Hear an amazing story of survival from the Titanic disaster, listen as a man plays his head like a xylophone, and learn the true story behind the Humpty Dumpty nursery rhyme.</p>
Ripley’s Cartoon Studio	Robert Ripley began his career as a cartoonist. Create your own customized Ripley cartoon that you can email yourself as a souvenir. View a selection of the vast collection of <i>Believe It or Not!</i> cartoons.	<ul style="list-style-type: none">• Touchscreen computer interactive featuring a selection of science-related Ripley cartoons• Cabinet displaying original cartoons drawn by Robert Ripley himself.	<p>Explore a selection of the cartoons that made Robert Ripley and <i>Ripley’s Believe It or Not!</i> ® famous.</p> <p>View original artwork for selected cartoons.</p> <p>Customize a cover for your own cartoon booklet, and select from various topics to find cartoons to add to your booklet. Email your creation to enjoy at home.</p>

Zone 4: Weird World

We live on an amazing planet that is full of incredible phenomena, which may appear unbelievable at a first glance. From geologic formations such as gigantic mineral crystals, to exploding killer lakes, there is a scientific explanation behind every wonder of the natural world.




Exhibit Name	What’s the Big Idea?	Key Elements	Visitor Experience
Extreme Earth Events - Multiplayer Quiz - “Be Amazed at the Extreme” and “Be a Time Traveler”	<p>Test your knowledge about some of the most incredible natural events to have happened on earth in this interactive quiz.</p> <p>Be a time traveler and visit different periods of Earth’s geologic and climatic history. Test your knowledge on the diverse and harshest environments that this planet has ever experienced.</p>	<ul style="list-style-type: none">• Two-part computer quiz with multimedia (videos, sound, images)• Button stations for three players	<p>Test your knowledge of unusual earth events, such as hurricanes, earthquakes, volcanoes and tornadoes. Explore and uncover locations with extreme environments in our present day and throughout Earth’s history. Learn about the scientific explanations behind some of the most bizarre wonders and events of the natural world. Discover what animals lived or perhaps not during some of the most tumultuous periods of Earth. Compete against others or play on your own.</p> <p>Believe It or Not!: The “Killer Lake” eruption in 1986 suffocated 1,700 people within a 15-mile (25 km) radius of Lake Nyos in Cameroon, Africa.</p> <p>Believe It or Not!: The 1883 volcanic explosion at Krakatoa, Indonesia was the loudest sound in modern history.</p>





Zone 4: Weird World






Exhibit Name	What's the Big Idea?	Key Elements	Visitor Experience
Cave of Crystals   	Imagine a cave that contains the largest natural crystals ever found on earth! Discover how conditions within the cave allow the crystals to grow so very large, and how this environment can be deadly to humans.	<ul style="list-style-type: none"> • Large scale Cave of Crystals image with 3D replica crystals • Signage indicating a photo opportunity • Replica cooling suit • Matching game activity for small children • Samples of gypsum crystals • Touchable samples of other mineral crystals • Touchscreen computer interactive 	<p>Learn about Naica mine in Chihuahua, Mexico, where a perfect combination of conditions allowed gypsum crystals to grow to immense proportions within the mine's "Cave of Crystals."</p> <p>Stand in front of the Cave of Crystals backdrop amongst 3D replicas of the crystals. Pose for a photo by popping your head into the helmet of a special cooling suit.</p> <p>Young children can play a matching game to see images of different types of equipment used to explore caves.</p> <p>At the large touchscreen, dress the cave explorer by choosing from a selection of equipment, or use a "flashlight" to find all the spots of interest in a virtual cave.</p> <p><i>Believe It or Not!:</i> The air temperature in the Cave of Crystals is 122°F (50°C) with a relative humidity of over 90%, making the air feel like 228°F (105°C). Entering the cave without a protective suit can be fatal in only 10 minutes!</p>
Meteorites	It came from space! – or did it? Touch real meteorites and compare their properties to those of common rocks from Earth.	<ul style="list-style-type: none"> • Display to showcase a genuine meteorite from Mars • Magnifier • Large iron meteorite and other meteorite samples 	<p>Check out real specimens of meteorites and learn the impact they can have on Earth. Compare the weight of an iron meteorite to that of a typical rock from Earth. Learn that some meteorites are heavier than typical rocks on Earth because of their high metal content.</p> <p>Experience the rare and very special opportunity to see a real rock from Mars! Look through the magnifier to get an even closer view. Learn why this is such a special and rare rock to science and how scientists discovered that this meteorite originated from Mars.</p>

Zone 4: Weird World

Exhibit Name	What's the Big Idea?	Key Elements	Visitor Experience
<i>Ancient Animals: Our earth is changing over the long spans of geological time, and fossils can provide a glimpse into the worlds of the past. Discover ancient life through examination of real specimens. Understand why mammals and birds flourished after the extinction of the dinosaurs, and take your picture inside the jaw of the largest shark species to ever live.</i>			
Paleontology Station – Dinosaur Marvels	Explore the world of the past as you investigate real fossils, including dinosaur specimens, and learn from paleontology experts about these fascinating creatures that reigned millions of years ago.	<ul style="list-style-type: none">• Dinosaur fossils including coprolites and eggs• Fossilized prehistoric bird from the Jiufotang Formation in China• Touchable replica dinosaur skulls	<p>Examine fossils of some of the most extreme animals that have lived on Earth.</p> <p>Explore the latest theories about the event that led to the extinction of dinosaurs at the end of the Mesozoic era, 65 million years ago.</p> <p>Use the touchscreen menu to choose a topic, and then watch expert paleontologists answer common paleontology questions.</p> <p>Unearth the connection between the dinosaur world and the living world of birds today. Compare features of the fossil of an early bird, to those of both dinosaurs and modern birds.</p>
Paleontology Station – After the Dinosaurs	Why did mammals and birds flourish after the extinction of dinosaurs 65 million years ago? Find out as you inspect real and replica fossils of some of the most fascinating ancient animals from the Cenozoic, the last 65 million years.	<ul style="list-style-type: none">• Replica elephant bird skeleton• Authentic elephant bird egg• Cast of a saber-toothed cat skeleton• La Brea Tar Pit block, with bones of animals that became trapped in asphalt• Ancient insects in amber and a hair specimen from a woolly mammoth	<p>Compare your own height to a life-size 10-foot (3 m) tall replica of an elephant bird skeleton and its foot-long (30 cm) egg. Examine a specimen of mammoth hair and, learn about this ancient relative of our modern elephants.</p> <p>View insects trapped in amber under magnifiers, and learn about the different ways that animal remains can be preserved. Examine the skeleton of a saber-toothed cat!</p> <p><i>Believe It or Not!:</i> Even though woolly mammoths have been extinct for thousands of years, we can find specimens of their remains that have not been fossilized.</p>



Zone 4: Weird World


Exhibit Name	What's the Big Idea?	Key Elements	Visitor Experience
<div>Megalodon Shark Jaw</div> <div></div>	Enter if you dare! Get inside the jaw of a megalodon, the largest species of shark to ever live.	<ul style="list-style-type: none">• Replica megalodon jaw• Signage indicating a photo opportunity	<p>Pose for a photo while standing within the massive jaws of a megalodon shark, an extinct species that was the largest predatory shark to have ever lived. At up to 50 feet (15 m) long, it was the top marine predator of its time.</p> <p>Learn that despite its large size, megalodon had many similarities to modern-day sharks, including teeth with serrated edges, bony jaw, and cartilaginous skeleton.</p>



Zone 5: Cultural Practices

Investigate extraordinary body modification techniques practiced by cultures around the world and how these aesthetic changes affect the functioning of the human body. Uncover how it is biologically possible to safely swallow a sword, and then order up an insect dish at the *Bug Bistro* to learn about entomophagy, the practice of eating insects. Explore how shrunken heads were made, and the cultural reasons for them.

Note: Displaying human remains is a sensitive topic and is done respectfully and in appropriate historical and cultural context. This zone will be designed so that any host venues that are uncomfortable displaying human remains can omit this area from the display.

Exhibit Name	What’s the Big Idea?	Key Elements	Visitor Experience
Shrunken Heads	Learn about the science and cultural context of the practice of shrinking heads.	<ul style="list-style-type: none">Authentic shrunken human headsTouchscreen video station for “How to Shrink a Head” video, in a physical space outside of the viewing area for the shrunken heads	Examine the shrunken heads. Learn how and where shrunken heads were created, and the cultural reasons behind them.
Body Modification 	Cultural body modification practices happen all over the globe as an expression of beauty or status. Study specific examples and understand the cultural significance of each.	<ul style="list-style-type: none">Interactive exhibit that allows visitors to lift a set of real neck coilsX-rays of human neck and shoulders showing the effects of wearing neck coilsFull-size synthetic figure of a Kayan womanNormal human skull replica, displayed so visitors can turn it to view all sides and compare with an elongated skullInteractive model of human skin	<p>Examine the neck-elongating effect of wearing neck coils by looking at a replica figure of a Kayan woman.</p> <p>Try lifting a set of real neck coils – they are unbelievably heavy!</p> <p>Study x-rays to discover how a person’s internal anatomy changes in response to wearing neck coils. They push the collarbone and ribs down, lowering the shoulders and making the neck appear longer than it actually is.</p> <p>Observe a human skull that has grown in an unusual shape due to head-banding. Discover how and why certain cultures practice head-banding.</p> <p>Learn about body modification practices in our modern North American culture. Examine equipment used in modern tattooing, and manipulate a human skin model to reveal how deep the ink is injected for a tattoo.</p>





Zone 5: Cultural Practices

Exhibit Name	What's the Big Idea?	Key Elements	Visitor Experience
Sword Swallowers	Try the sword swallowing interactive challenge. Be amazed as you watch footage of actual sword swallowers and learn about their methodical techniques.	<ul style="list-style-type: none"> Sword swallowing interactive Touchscreen video station Real, touchable sword from Dan Meyer, award-winning sword swallower Interpretive graphics 	<p>Adjust the alignment of the head and pull tabs to 'open' the sphincters of the stylized cross-section of the human body. Carefully insert a sword down the throat and make sure to avoid the fragile organs! If you hit the sides of the esophagus or any organs, sound effects are triggered.</p> <p>Watch footage and interviews of an expert sword swallower, and choose to see his feat from different angles.</p> <p>Learn the extraordinarily precise techniques of sword swallowing.</p>
Bug Bistro	Think all protein is created equally? Learn that insects require less energy and water to produce, per gram of protein, than other meat sources. This fun, unique experience will have you looking at creepy crawlers in a whole new way, as a tremendous potential food source and part of a nutritious, environmentally responsible diet!	<ul style="list-style-type: none"> A set that represents a food cart in a North American marketplace Multimedia presentation with large video screens and push button visitor interface 	<p>Step up to the food cart and choose a dish off the menu. Watch as the chef prepares it in front of you, and explains why you've made such a fabulous choice!</p> <p>The chef interacts with other characters at the cart: a young customer and a delivery person dropping off a fresh load of insects. Their lively and amusing banter conveys messages about how environmentally friendly it is to raise insects, and that insects are an excellent source of protein.</p> <p>When your dish is prepared, one of the characters will give it a try to let you know how it tastes!</p>



Zone 6: Gallery of the Unexpected



Explore objects that represent Mr. Ripley’s legacy of inspiring people to create unique art and collect unusual things. Find out how artist Willard Wigan is able to make exquisite sculptures so tiny they can fit in the eye of a needle. Delve into the science of color mixing and pixilation to gain a new perspective of the objects on display, and perhaps look at them in a whole new way. This area has seating for visitors to pause and enjoy the art around them.

Exhibit Name	What’s the Big Idea?	Key Elements	Visitor Experience
Amazingly Small Sculptures and Challenge	Imagine creating intricately detailed art, so small it fits in the eye of a needle, and you must slow down your heart and breathing rates before beginning. That’s exactly how artist Willard Wigan creates his unbelievable micro-sculptures!	<ul style="list-style-type: none">• Selection of Willard Wigan’s micro-sculptures with microscope viewing systems• Touchscreen video station• Physical interactive challenge	<p>Marvel at the intricate microscopic sculptures. Watch a video to “meet” the artist and learn about the physiological changes the sculptor must accomplish to work on such tiny art.</p> <p>Steady hands are required in this challenge where you manipulate a tool to touch three tiny colored pins, all while looking down a magnifier. You’ll appreciate the patience and skill of Willard Wigan even more!</p> <p>Believe It or Not!: Willard Wigan has used human hair and even pieces of dust as parts of his sculptures!</p>
Matchstick Rolls Royce	Inspect this extraordinary Rolls Royce made entirely from matchsticks! Can you guess how many were used?	<ul style="list-style-type: none">• Matchstick Rolls Royce• Graphics to engage visitors in estimating facts about the creation of the matchstick Rolls Royce Associated Ripley’s Believe It or Not!® cartoon	<p>View this two-third size replica of a 1907 Rolls Royce. The signage prompts you to estimate how many hours a day the artist worked to make the model.</p> <p>Challenge your estimating skills to determine how far the matchsticks would go if they were laid end to end.</p> <p>Believe It or Not!: The two-third size 1907 Silver Ghost Rolls Royce is made from 1,016,711 matchsticks and 63 pints of glue. It took the artist 4,609 hours over 450 days to build.</p>





Zone 6: Gallery of the Unexpected

Exhibit Name	What's the Big Idea?	Key Elements	Visitor Experience
3D and 2D Art and Sculptures	Want to feel inspired? Take a break and observe these creative and offbeat hobby art pieces made from everyday items.	<ul style="list-style-type: none"> A selection of unusual pieces of 3D and 2D hobby art including phone book portraits, insect sculptures made out of human hair by artist Adrienne Antonson, a computer keyboard portrait of Benjamin Franklin and a portrait of Nelson Mandela made from pennies 	<p>Enjoy the eye-catching pieces of art.</p> <p>Some art is grouped together in an area with seating – a place to pause and wonder.</p>
Art Interactives – “Make an Impression” and “Create the Colors”	Wonder why the hobby art pieces appear different close-up than they do at a distance? Find out in this interactive experience where you're allowed to sit too close to the monitor.	<ul style="list-style-type: none"> Counter-top interactives to illustrate scientific concepts behind the creation and of hobby art: <ul style="list-style-type: none"> Two 3D pin impression units, one with pin heads close together and one with them farther apart Touchscreen computer interactive for <i>Create the Colors</i> 	<p>Discover how viewing distance affects your perception of the image.</p> <p>Push your hand into the two 3D pin arrays to make impressions of your hand. Compare the results close-up and from a distance, to learn how the spacing of pin heads affects the shape of an image.</p> <p>Take a close up look at an ordinary monitor to learn it is actually an array of thousands of red, green and blue lights that, in different combinations, create all the colors we see. Use the touchscreen menu to ‘mix’ colors and see the effect on the red-green-blue light array.</p>



Zone 7: Perceptions and Illusions

How do illusions work? Illusions exploit the way our brains process sensory information to turn it into an image or sound we can comprehend. Trick your sight and hearing and learn how we perceive the world around us. These amazing illusions will keep you fooled even after you learn how they work!

Exhibit Name	What’s the Big Idea?	Key Elements	Visitor Experience
Capture Your Moves!	Create unique ‘paintings’ with your body! Move your whole body to explore the concepts of time and motion in a colorful, immersive experience.	<ul style="list-style-type: none">• Large enclosed structure• Specialized computer/ projection system including projector, special screen, and color camera	Move around in front of the specially treated wall and create your own computer-generated silhouettes in vivid color. View images of your motion on the large projection screen and test the effects of slowing down or speeding up your movements. Take a dance break and dance it out!
Grow and Shrink It!	Be amazed as you manipulate the objects in this distorted room and they grow and shrink before your very eyes!	<ul style="list-style-type: none">• Distorted, trapezoidal 3D room tabletop illusion	Peer into the small scale Ames room. Move images of people back and forth, and watch in amazement as they appear to shrink and grow. Then go around to the back and observe the room to discover how the illusion is created and fools your eyes.





Zone 7: Perceptions and Illusions

Exhibit Name	What's the Big Idea?	Key Elements	Visitor Experience
Interactive Optical Illusions-	These interactive optical illusions will make you wonder if you have taken leave of your senses - until they are explained with simple science.	<ul style="list-style-type: none"> • <i>Touch the Floating Gemstone</i> illusion • <i>Spinning Vase or Talking Faces?</i> illusion • <i>Make Your Skin Crawl</i> illusion. • <i>Trick Your Eyes</i> illusions • Illusion knitting art 	<p>Reach your hand in to grab the floating jewel, and be surprised when your hand moves right through it. Science demonstrates how a curved mirror system creates the illusion of a floating object.</p> <p>Test out this “spin” on a classic optical illusion. Focus on the vase in the center of the cabinet, then spin the disk and take a step back to watch as the two faces start talking to each other.</p> <p>Stare into the center of the animated black and white pattern. Shift your gaze to the back of your hand to see an effect that will make your skin crawl.</p> <p>Observe a variety of 2-D optical illusions and be amazed at how things are not exactly as they first appear to be. Learn why your eyes are deceiving you as optical illusions exploit the way our brains process visual information to turn it into an image.</p> <p>Observe the optical illusion of knitting art, the image of a tiger magically appears as you step to one side or the other.</p>
Auditory Illusion: The McGurk Effect	This auditory illusion will “trick your ears” in a fun interactive experience.	<ul style="list-style-type: none"> • Touchscreen computer interactive with directional speakers to present the McGurk Effect 	<p>Listen closely to the video of someone making simple sounds. The person appears to be saying “fa, fa, fa,” but close your eyes and it sounds like “ba, ba, ba.” The McGurk Effect happens when visual input overrides the auditory input and “changes” the sound that you perceive.</p>






Zone 7: Perceptions and Illusions

Exhibit Name	What’s the Big Idea?	Key Elements	Visitor Experience
Pay Attention to This!	Think you are paying attention? You may be amazed at how much you missed in this original video.	<ul style="list-style-type: none">• Touchscreen video station with original video production of a selective attention test	<p>At the beginning of this video, the scientist urges you to “watch carefully” as she performs an experiment. The experiment itself is fun and entertaining, but at the end you’ll be amazed at what you missed! Re-watch the video clip and discover all the changes that you didn’t see!</p> <p>Learn that this occurs because focusing and concentrating on a singular aspect makes one “blind” to other events happening on the same screen.</p>
Impossible Gate	You will have to “think outside the box” to figure out how to open this puzzling gate.	<ul style="list-style-type: none">• Metal gate with special latch system• Lift and drop graphic to show the solution	Use your keen observation and problem-solving skills to unlock the gate.
<i>Believe It or Not!</i> Video Station	Watch an eclectic mix of classic <i>Ripley’s Believe It or Not!</i> videos highlighting the weird, wild and simply unbelievable!	<ul style="list-style-type: none">• Video station• Seating	Sit and pause to watch modern and historical footage from <i>Ripley’s Believe It or Not!</i> video vault.

Zone 8: Exit Experience

Exhibit Name	What's the Big Idea?	Key Elements	Visitor Experience
Transformer 	Enjoy a photo opportunity with an iconic Ripley's piece from the movies.	<ul style="list-style-type: none">Transformer made of car partsSignage indicating a photo opportunity	Marvel at the larger-than-life transformer sculpture made fun car parts. Stop and pose for one last photo before you leave the exhibit!
Ripley's in Your Neighborhood	Read about <i>Ripley's Believe It or Not!</i> ® stories in your local area, and find out how you can connect with Ripley's.	<ul style="list-style-type: none">Touchscreen videoBulletin board and display case to showcase locally-themed <i>Ripley's Believe It or Not!</i>® cartoons, stories, specimens and artifacts	Watch an entertaining video to see how you can connect to Ripley's. View <i>Believe It or Not!</i> cartoons featuring the host city or region, or unbelievable stories.
Expand your Ripley's Experience	Receive information about other Ripley attractions to visit nearby or on your next trip.	<ul style="list-style-type: none">Interactive computer highlighting Ripley's locations and experiences around the globeBulletin board for changeable information about Ripley attractions	Check out the <i>Ripley's Believe It or Not!</i> ® locations, and plan your future Ripley's experiences. Some are just around the corner!





100 Ramsey Lake Road
Sudbury, Ontario
Canada P3E 5S9

sciencenorth.ca/internationalsales

