

BEYOND

# HUMAN LIMITS

Traveling Exhibit Brief  
2018



SCIENCE  
NORTH



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NORD



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**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.

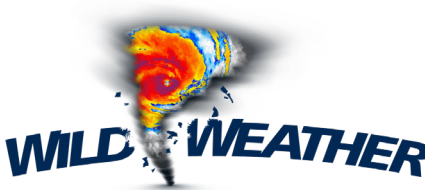
**RENTAL FEE:**

Winter: \$200,000  
Summer; \$230,000  
Fall: \$170,000

**ADDITIONAL MATERIALS**

- Educational Guide
- Marketing Guide
- Technical Operations Guide
- Learning Impact Research Evaluation

*Beyond Human Limits* is the newest exhibit in Science North’s portfolio.  
Our other current traveling exhibits are:



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

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# Exhibition

## Conceptual Plan

**How do you perceive risk?**  
**How do you feel in risky situations?**  
**What makes an extreme sports athlete?**  
**Do you have the personality and motivation?**

Go inside the minds and bodies of extreme athletes – their psychology, physiology, and physicality. What motivates them to participate in some of the riskiest activities in the world? Experience the thrill of extreme sports – climb the rock wall, follow the footsteps of a parkour athlete, or immerse yourself in the action of whitewater kayaking. Meet passionate athletes and hear their incredible stories, and take in the artistry, motivation, and thoughtfulness that goes into everything they do.

Extreme sports can be hard to define, since they are always changing as skills and equipment evolve. They usually involve an inherent element of physical risk, and intense physical and mental challenges. They require special technical skills and abilities, and specialized equipment. They commonly involve exhilarating speeds, breathtaking heights, or profound depths, and a variety of uncontrolled natural variables. By presenting facts and real stories, the exhibition helps dispel myths and stereotypes commonly associated with extreme sports and the people who participate in them.

The exhibition illustrates that participation in extreme sports requires skill, training, and proper use of specialized equipment. To make smart and calculated decisions, extreme sports athletes are skilled at evaluating risk and remaining calm under intense pressure. The athletes featured are highly skilled professionals who put a great deal of thought, time and training into their actions.



### Featured athletes and researchers *(All videos within the exhibit are subtitled):*

- Ashleigh Baird, freediver
- Katherine Beattie, wheelchair motocross (WCMX)
- Aaron “WHEELZ” Fotheringham, wheelchair motocross (WCMX)
- Jeb Corliss, wingsuit pilot
- Faith Dickey, slackiner / highliner
- Will Gadd, ice climber
- Mark McMorris, snowboarder
- Dr. Vani Sabesan, Orthopaedic Surgeon, Cleveland Clinic, Florida
- Dr. Kenneth Carter, Charles Howard Candler Professor of Psychology, Oxford College, Emory University

This 600 sq m (6,000 sq ft) traveling exhibition features hands-on exhibits, interactive multimedia experiences, multiplayer challenges, and large-scale graphics. Immersive theme areas evoke a dynamic and lively vibe, with design elements that help transport visitors into various extreme sports environments where they can experience the sports through physical challenges and multimedia exhibits.

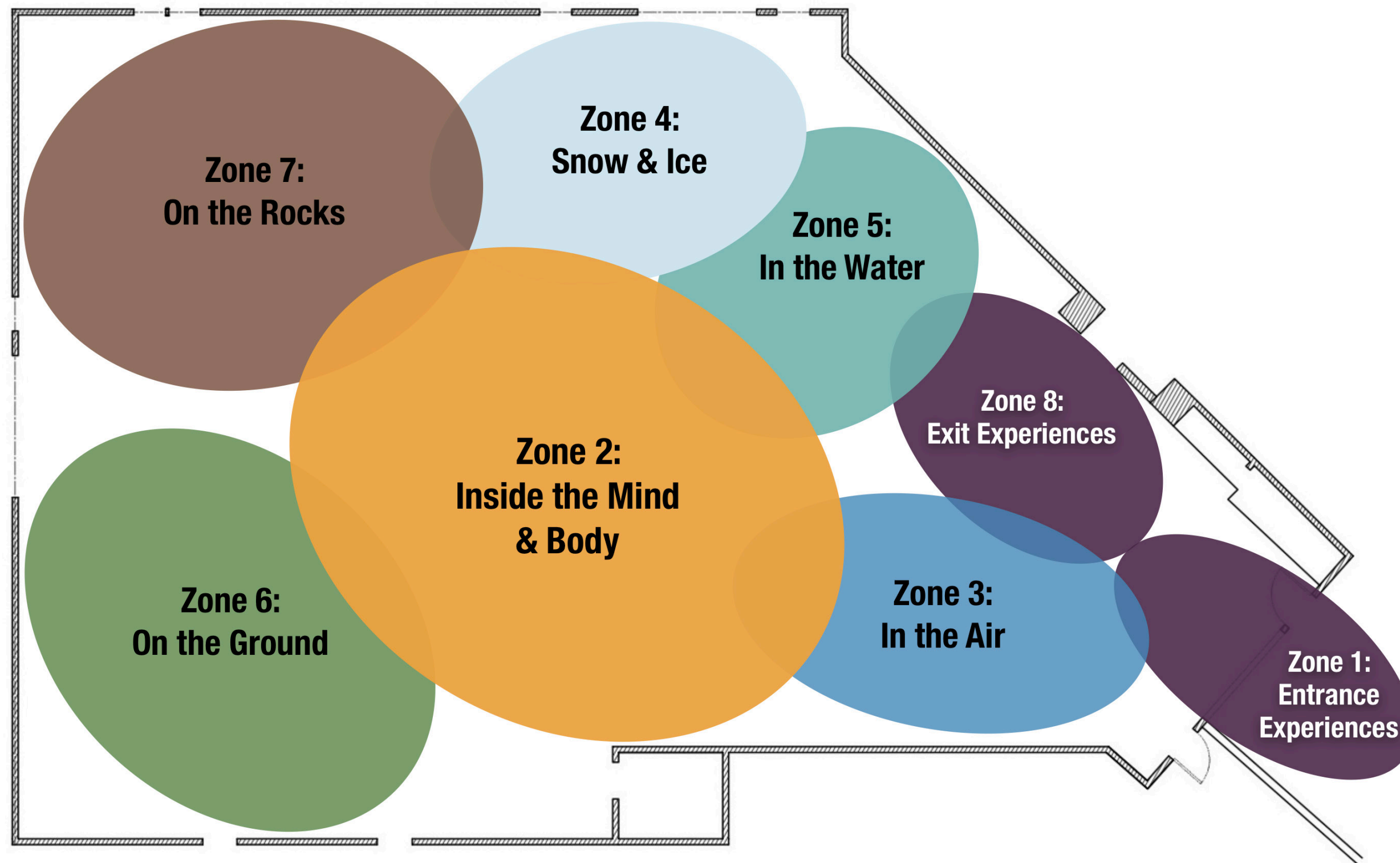
### The goals of the *Beyond Human Limits* exhibition are to:

- use visitors’ natural interest and curiosity in extreme sports to engage them in science experiences related to human ability, capacity, drive, and motivation
- provide a fun, engaging, and immersive experience for visitors to explore the creativity, innovation, and evolution inherent in extreme sports
- showcase the diverse stories of extreme sports athletes, the researchers who study them, those who rescue when things go wrong, and the innovators who create new and novel equipment
- provide an opportunity for visitors to learn more about themselves – their personality, motivations, and propensity for extreme sports – and to inspire them to achieve their own personal life goals
- dispel myths and misconceptions surrounding extreme sports



# Theme Areas

Positioned to fit within  
Science North's Special  
Exhibits Hall

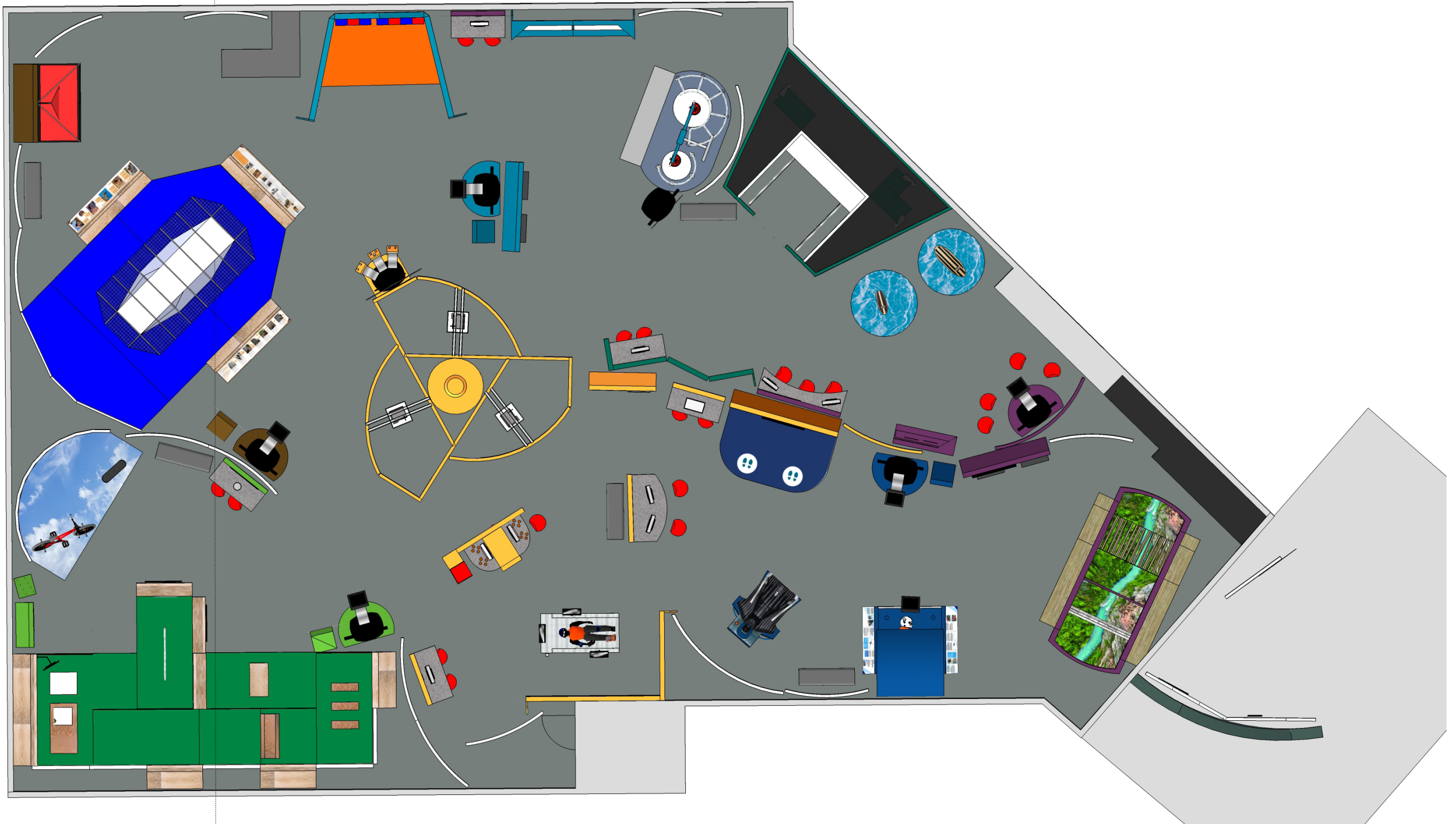




# Draft

## Floor Layout

*Positioned to fit within  
Science North's Special  
Exhibits Hall*





# Exhibit List

## Introductory and Concluding Experiences (Zones 1 & 8)

### Zone 1: Entrance Experiences

- 1.1 Exhibition Title Sign (*fabric wall*)
- 1.2 What Are Extreme Sports? (*imagery and looping video; wall*)
- 1.3 Innovation and Evolution (*touchscreen interactive; desk kiosk*)
- 1.4 Highline Challenge (*whole body interactive*)

### Zone 8: Exit Experiences

- 8.1 Be Creative! (*interactive magnetic wall*)
- 8.2 Be Yourself! (*touchscreen interactive; desk kiosk*)
- 8.3 Be Inspired! (*looping video show; 2-screen kiosk*)

## Central Touchstone Experiences (Zone 2)

### Zone 2: Inside the Mind and Body

- 2.1 Central Multimedia Experience (*3-screen theatre show; fabric walls*)
- 2.2 What's Your Extreme Sports Personality? (*touchscreen interactive*)
- 2.3 Would You Rather? (*multiplayer quiz interactive*)
- 2.4 Inside the Extreme Sports Body (*interactive*)
- 2.5 First Responder Interactive (*quiz interactive*)
- 2.6 Adrenaline or Dopamine? (*graphic interactive*)
- 2.7 Feel the Rush! (*2-player interactive*)
- 2.8 Body Sense Challenges:
  - a) Feel Your Fingers (*physical interactive*)
  - b) Dot Your i's (*physical interactive*)
  - c) Match Your Moves (*multiplayer whole body interactive*)

## Extreme Sports Realms (Zones 3-8)

### Zone 3: In the Air

- 3.1 Meet the Athletes (*video interactive*)
- 3.2 Flying Simulator (*full body physical interactive*)
- 3.3 Wingsuit Design (*wingsuit and interpretive graphics*)

### Zone 4: Snow and Ice

- 4.1 Meet the Rescuers (*video interactive*)
- 4.2 Kids in the Hills (*full body physical interactive*)
- 4.3 Design the Ideal Slope (*physical interactive*)
- 4.4 Backcountry Showdown (*physical VR interactive*)

### Zone 5: In the Water

- 5.1 Immersion Room (*multimedia immersive experience*)
- 5.2 Balance Challenge (*full body interactive*)
- 5.3 One Breath Challenge (*interactive*)

### Zone 6: On the Ground

- 6.1 Meet the Athletes (*video interactive*)
- 6.2 Parkour Park Challenge (*full body interactive*)
- 6.3 Spin, Flip and Roll (*Spin Browser interactive*)
- 6.4 Flipped Photo Op (*multi-person photo op*)



### Zone 7: On the Rocks

- 7.1 Meet the Athletes (*video interactive*)
- 7.2 Climb It! Challenge (*full body interactive*)
- 7.3 Climb How? (*interactive and interpretive graphic rails*)
- 7.4 Cliff Camping (*full body interactive*)





Zone 1: Entrance Experiences

The entrance graphic treatment introduces the main themes and topics of the exhibition. Visitors gain an understanding of extreme sports through videos of the featured professional athletes and researchers. An immersive sensory experience grabs visitors' attention and plunges them right into the action.

Exhibit Name	The Big Idea	Key Elements	Visitor Experience
1.1 Exhibition Title Sign	<p>To attract and introduce visitors to the exhibition, and recognize the project's funders and partners.</p> <p>To creatively showcase dynamic imagery and artistry associated with extreme sports.</p>	<ul style="list-style-type: none"> <li>Fabric wall components with creative incorporation of exhibit colors, images, and multilingual words</li> <li>Graphics: <ul style="list-style-type: none"> <li>Fabric wall backdrops with thematic image treatment including words</li> <li>Cutout silhouettes</li> <li>Exhibit title logo</li> <li>Sponsor/Donor recognition</li> </ul> </li> </ul>	<p>Encounter teaser highlights of the imagery and elements to be discovered within.</p> <p>The title sign and accompanying fabric walls convey the energetic and dynamic feel of the exhibition while acknowledging the exhibition's sponsors and donors.</p> 
1.2 What Are Extreme Sports?	<p>To introduce visitors to extreme sports via words and images that highlight the ideas of innovation and evolution inherent in extreme sports.</p> <p>To convey the message that skill, training, protective equipment, and smart decision-making are all very important because extreme sports, by definition, are inherently risky.</p>	<ul style="list-style-type: none"> <li>Solid structure wall with graphic treatment incorporating images and multilingual words</li> <li>Special AV: <ul style="list-style-type: none"> <li>55" monitor with looping video to showcase quotes and sound bites from featured athletes and researchers</li> </ul> </li> <li>Graphics: <ul style="list-style-type: none"> <li>Thematic image treatment with words</li> <li>Exhibit title sign</li> <li>Interpretive content</li> </ul> </li> </ul>	<p>Learn about extreme sports from the athletes and researchers featured in <i>Beyond Human Limits</i> through a showcase video of their most memorable thoughts and reflections.</p> <p>Graphics highlight the energy and skill of extreme sports.</p> 



1.3 Innovation and Evolution	<p>To demonstrate the evolution and innovation inherent in extreme sports by showcasing a sample sport – wingsuit piloting – in a simple computer interactive.</p>	<ul style="list-style-type: none"> <li>• Sit-down 22" touchscreen computer station with speakers</li> <li>• Seating for two visitors</li> <li>• Graphics: <ul style="list-style-type: none"> <li>○ Thematic image treatment with words</li> <li>○ Exhibit title sign</li> <li>○ Cutout image topper</li> </ul> </li> </ul> <p><i>Note: Exhibit pairs well with 3.3-Wingsuit Design and 3.2-Flying Simulator exhibits.</i></p>	<p>Hear from a professional athlete about the development, innovation and evolution of wingsuit flying.</p> <p><b>Featured athlete:</b> <i>Jeb Corliss, wingsuit pilot</i></p> 
1.4 Highline Challenge	<p>To challenge visitors to test their balance, coordination and body positioning while walking a length of webbing or a “log” across a canyon.</p> <p>To provide a fun photo op where visitors can capture a photograph of the experience on their own cameras.</p> <p>To provide a comfortable and accessible bypass – the “bridge.”</p>	<ul style="list-style-type: none"> <li>• Exhibit structure with: <ul style="list-style-type: none"> <li>○ Two balancing apparatuses: one 6-foot (2 m) section of slackline; one simulated log</li> <li>○ Padded floor with ramps for accessibility</li> <li>○ Solid side walls and overhead support structure</li> </ul> </li> <li>• Special AV: <ul style="list-style-type: none"> <li>○ Audio soundscape</li> </ul> </li> <li>• Graphics: <ul style="list-style-type: none"> <li>○ Cushioned floor graphic that creates the illusion of balancing across a deep canyon</li> <li>○ Extension of the floor imagery onto vertical walls to extend the illusion</li> <li>○ Exhibit title sign</li> <li>○ Instructional illustration and safety guidelines</li> </ul> </li> </ul> <p><i>Note: Exhibit is most effective if visitors have a clear view of 3.1-Meet the Athletes (Faith Dickey, slackliner/highliner).</i></p>	<p>Test your balance and coordination while crossing a short section of highline, log, or bridge designed to create the illusion that you are high above the ground.</p> <p><i>Note: Whenever possible, this should be the first interactive element as visitors enter the exhibition.</i></p> 










Zone 2: Inside the Mind and Body

This zone is a touchstone within the exhibition and ties together content featured throughout, such as the science behind the psychology, physiology, and physicality of extreme athletes. A central multimedia experience brings visitors inside the minds and bodies of extreme athletes to explore their experiences and motivations. Complementary exhibits cover topics such as risk evaluation, proprioception, sensation seeking, and injuries and rehabilitation.



Visitors also learn more about themselves. They complete a scientific questionnaire to find out what type of sensation seeker they are, and compare their personality to featured athletes and researchers.

Exhibit Name	The Big Idea	Key Elements	Visitor Experience
2.1 Central Multimedia Experience	<p>To create a multimedia experience in an iconic structure that acts as a central hub for the entire exhibition.</p> <p>To bring visitors inside the brain and body of extreme athletes to understand their psychology, physiology, and physicality.</p> <p>To use technology to allow visitors to be part of the show by engaging them in the determination of the results of extreme sports activities – is the athlete properly prepared, and will he or she be successful? Everyone votes and then the whole audience sees the results.</p>	<ul style="list-style-type: none"><li>• Fabric-walled multimedia theatre experience with multiple entry points</li><li>• Special AV:<ul style="list-style-type: none"><li>○ Monitors and sound system</li><li>○ Visitor interface for show engagement</li></ul></li><li>• Graphics:<ul style="list-style-type: none"><li>○ Exterior fabric walls with thematic image treatment</li><li>○ Brief safety instruction</li></ul></li></ul>	<p>Step inside the mind and body of extreme sports athletes to understand how they prepare, train, and participate in their chosen sports.</p> <p>Through short multimedia show segments, explore how the athletes' goals and motivations translate into thoughts, physiological responses, physical exertion and remarkable accomplishments. Understand what influences an athlete to successfully and safely complete a particular extreme sport activity.</p> <p>Vote to control the outcome of animated scenarios based on key features of athletes' mental preparedness: passion, preparation, perseverance, risk evaluation, growth, trust, and challenge.</p> <p><b>Featured athletes:</b> <i>Ashleigh Baird, freediver</i> <i>Katherine Beattie, wheelchair motocross (WCMX)</i> <i>Jeb Corliss, wingsuit pilot</i> <i>Faith Dickey, slackiner/highliner</i> <i>Will Gadd, ice climber</i> <i>Mark McMorris, snowboarder</i></p> 


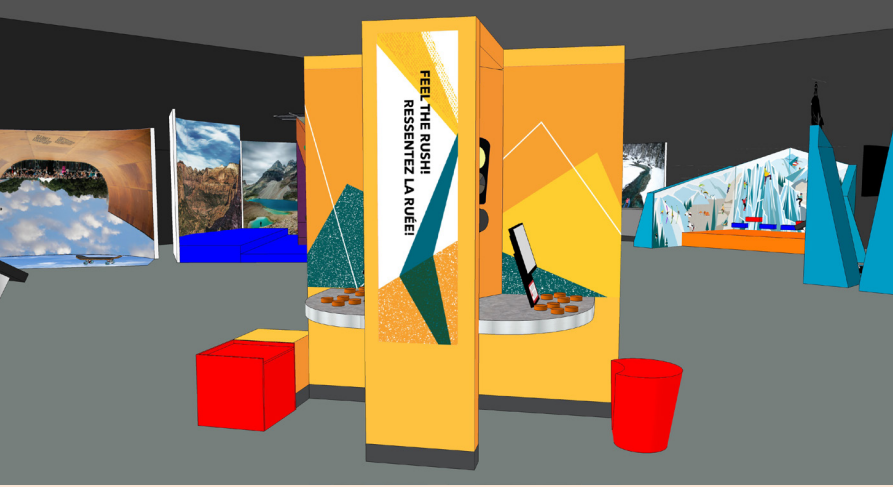


<p>2.2 What's Your Extreme Sports Personality?</p>	<p>To provide an opportunity for visitors to learn about their own personality with respect to certain traits characteristic of extreme sports participants.</p> <p>To allow visitors to determine their sensation-seeking score and compare to those of friends, family, and featured extreme athletes.</p>	<ul style="list-style-type: none"> <li>• Two individual 22" touchscreen stations at one sit-down kiosk; speakers</li> <li>• Seating for two visitors</li> <li>• Graphics: <ul style="list-style-type: none"> <li>○ Thematic image treatment</li> <li>○ Exhibit title sign (incorporates interpretive imagery)</li> </ul> </li> </ul>	<p>Learn about the sensation seeking personality trait. Complete the personality questionnaire to discover where you fall along the continuum.</p> <p>Compare your sensation seeking score to that of your friends or family, or to the <i>Beyond Human Limits'</i> featured athletes and researchers.</p> <p><b>Featured researcher:</b> <i>Dr. Ken Carter, clinical psychologist</i></p> 
<p>2.3 Would You Rather?</p>	<p>To initiate discussion amongst visitors about their relative appetites for different types of risk, by using everyday scenarios and career options.</p> <p>To introduce the topics of motivation and risk, as they apply to extreme sports, in a light and fun way.</p>	<ul style="list-style-type: none"> <li>• Multiplayer computer interactive with three visitor stations</li> <li>• Step stool</li> <li>• Special AV: <ul style="list-style-type: none"> <li>○ Pushbutton visitor interfaces</li> <li>○ Monitor</li> <li>○ Speakers</li> </ul> </li> <li>• Graphics: <ul style="list-style-type: none"> <li>○ Cutout panel</li> <li>○ Exhibit title sign</li> <li>○ Button labels</li> </ul> </li> </ul>	<p>Are you a risk-taker in everyday life? What about your work life?</p> <p>Explore the role sensation seeking plays in everyday life by answering personally relevant questions on your own or with a group.</p> 



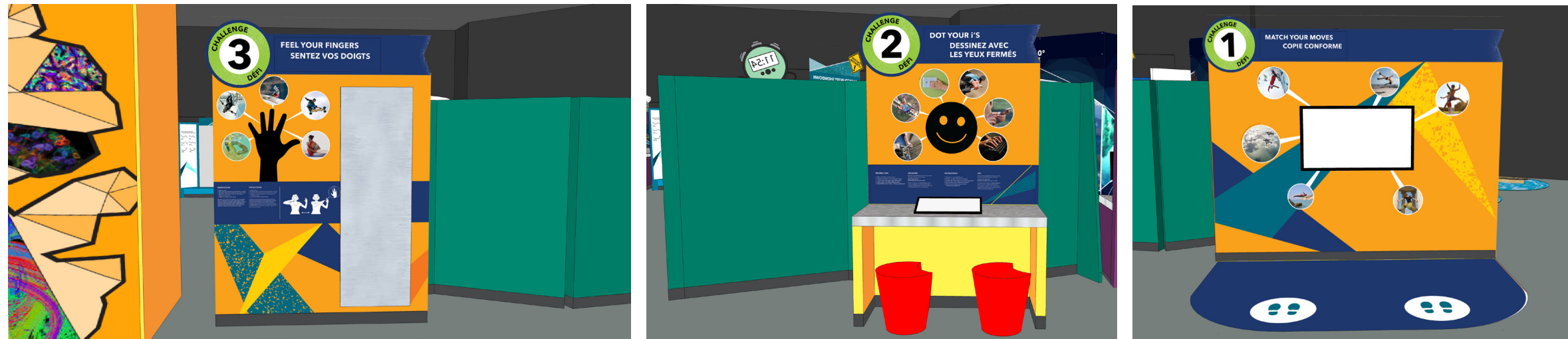
<p>2.4 Inside the Extreme Sports Body</p>	<p>To illustrate common injuries that extreme sports participants may sustain.</p> <p>To present real medical imagery and provide information about each injury.</p> <p>To emphasize the importance of experience, training and protective equipment to minimize injuries.</p>	<ul style="list-style-type: none"> <li>• Full-size mannequin</li> <li>• Three 22" monitors to display medical case studies</li> <li>• Step stool(s)</li> <li>• Graphics: <ul style="list-style-type: none"> <li>○ Thematic image treatment, including cutout panels</li> <li>○ Exhibit title sign</li> <li>○ Interpretive</li> </ul> </li> </ul> <p><i>Notes: Pairs well with the 2.5-First Responders Interactive.</i></p>	<p>Slide interactive touchscreens along the life-size mannequin to explore what happens inside the body when things go wrong. Meet athletes and hear their stories of injury, treatment, and recovery.</p> <p>Interpretive graphics provide general information about extreme sports injuries.</p> <p><b>Featured athletes/researchers:</b>  <i>Katherine Beattie, wheelchair motocross (WCMX)</i>  <i>Jeb Corliss, wingsuit pilot</i>  <i>Mark McMorris, snowboarder</i>  <i>Dr. Vani Sabesan, orthopaedic surgeon</i></p> 
<p>2.5 First Responders Interactive</p>	<p>To encourage visitors to decide how they would respond as a first aider in everyday sports scenarios.</p> <p>To emphasize that protective equipment, training, experience and being prepared are all important to minimize injuries.</p> <p>To introduce an orthopedic surgeon with experience treating extreme sports injuries.</p>	<ul style="list-style-type: none"> <li>• Sit-down 22" touchscreen computer station with speakers</li> <li>• Seating for two visitors</li> <li>• Graphics: <ul style="list-style-type: none"> <li>○ Thematic image treatment</li> <li>○ Exhibit title sign (incorporates interpretive imagery)</li> </ul> </li> </ul> <p><i>Notes: Pairs well with 2.4-Inside the Extreme Sports Body, and the 6.4-Flipped Photo Op.</i></p>	<p>Test your first aid knowledge through everyday accidents and injuries at a local skatepark. Consider the animated scenario and then make your choice. You need to be quick because the clock is ticking! Play on your own, or challenge your friends.</p> <p>An orthopedic surgeon explains her experience with extreme sports injuries.</p> <p><b>Featured researcher:</b>  <i>Dr. Vani Sabesan, orthopaedic surgeon</i></p> 



2.6 Adrenaline or Dopamine?	To simply and elegantly explain the distinct roles of dopamine and adrenaline in the body, and to clarify how they affect people engaging in extreme activities.	<ul style="list-style-type: none"> <li>Large “enhanced” infographic with simple interactive elements</li> <li>Special AV: <ul style="list-style-type: none"> <li>Two monitors</li> <li>Button to activate back-lighting</li> </ul> </li> <li>Graphics: <ul style="list-style-type: none"> <li>Thematic monitor masks</li> <li>Exhibit title sign</li> </ul> </li> </ul> <p><i>Notes: Will be part of the 2.5-Feel the Rush structure; supports content in both Feel the Rush and the 2.1-Central Multimedia Experience.</i></p>	<p>Explore animations to see what happens inside the body of a novice and experienced athlete. Understand how adrenaline and dopamine work within the body, and the role of these chemicals in extreme sports.</p> 
2.7 Feel the Rush!	<p>To increase understanding about the role of focus in extreme sports activities.</p> <p>To create a fun interactive for two players.</p>	<ul style="list-style-type: none"> <li>Two-player seated interactive</li> <li>Both players have: 22” touchscreen and a countertop array of buttons</li> <li>Special AV: <ul style="list-style-type: none"> <li>Vibration devices in one seat</li> <li>Distractions - Fans, Lights, Noise</li> <li>Button arrays</li> </ul> </li> <li>Graphics: <ul style="list-style-type: none"> <li>Exhibit title sign (incorporates interpretive imagery)</li> </ul> </li> </ul> <p><i>Note: The 2.6-Adrenaline or Dopamine interactive will be mounted onto this experience.</i></p>	<p>Play this fun two-player game to understand how extreme sports athletes concentrate on a given task, respond calmly to unexpected distractions, and focus on a goal to be successful.</p> 



2.8 Body Sense Challenges	<p>To provide a fun and comfortable space for visitors to test their sense of their body in space through a series of physical challenges.</p> <p>To demonstrate that extreme athletes must have a highly developed sense of the position of their body and limbs in space in order to execute precise movements such as jumps, flips and dives.</p>	<p>Series of three proprioception challenges:</p> <ul style="list-style-type: none"> <li>a) Feel Your Fingers: Exhibit title sign; interpretive and instructional graphics, space to stand with eyes closed; mirror</li> <li>b) Dot Your i's: Sit-down computer station with exhibit title sign; interpretive graphic, and 22" touchscreen</li> <li>c) Match Your Moves: Exhibit title sign; Kinect-type technology; 55" monitor; floor mat</li> </ul>	<p>Test your sense of your body's position in space with these three challenges:</p> <p>a) Feel Your Fingers b) Dot Your i's c) Match Your Moves</p> <p>Proprioception gives your brain information about where your body parts are in relation to each other and in space.</p>
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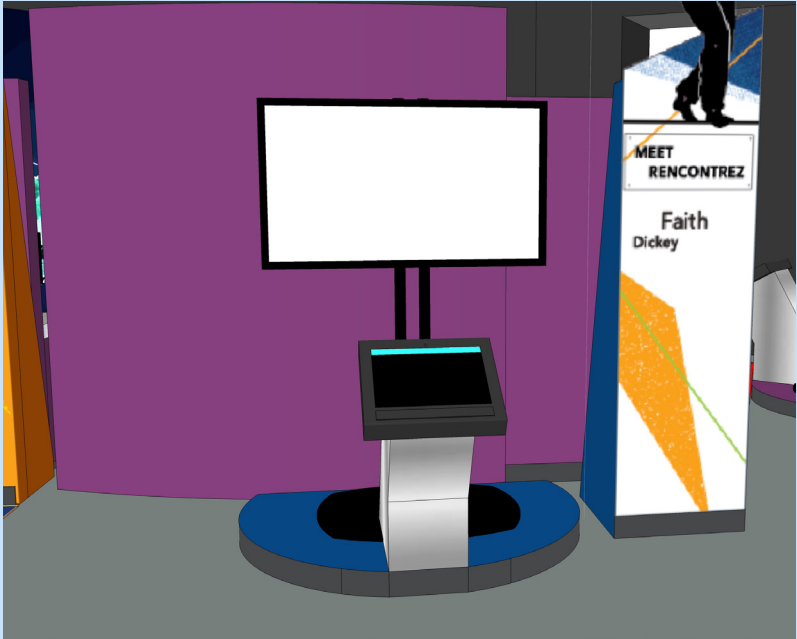
Extreme Sports Realms (Zones 3-7):

A series of immersive spaces transport visitors to the locales of extreme sports – a feeling of being high above the earth, on icy or snowy terrain, in and under the water, high on rock cliffs and mountains, and on the ground. Large scale photos, colors, shapes, soundscapes, physical objects including sports equipment, and other design elements surround visitors with the sights and sounds of the five distinct environments. These environmental treatments provide a backdrop for visitors to:

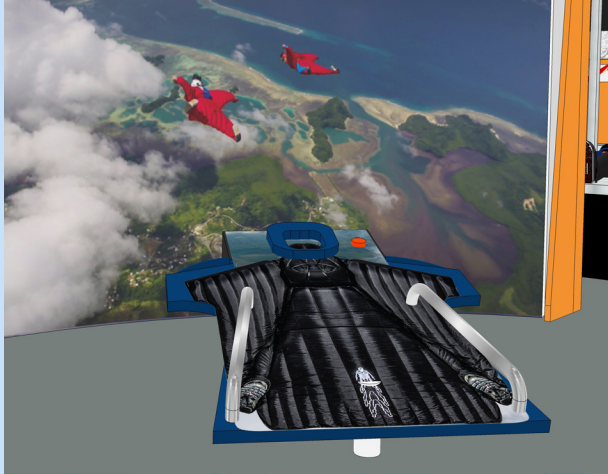

- experience the sports through physical and multimedia challenges, including opportunities to compete with other visitors
- “meet” extreme athletes and others involved in the sports, such as rescuers
- experiment with interactive exhibits to better understand the underlying science of the sports

Zone 3: In the Air

In the air explores sports that are executed at great height. Visitors learn the mechanics of highlining from a professional athlete, and explore the physics of wingsuiting while meeting a wingsuit pilot and BASE jumper.

Exhibit Name	The Big Idea	Key Elements	Visitor Experience
3.1 Meet the Athletes	<p>To allow visitors to meet and relate to extreme athletes.</p> <p>To engage visitors in compelling personal stories of athletes that emphasize the motivations, drive, passion, training and dedication to achieve great feats.</p> <p>To display the athletes’ sensation-seeking scores so visitors can compare them to their own results from the <i>What’s Your Extreme Sports Personality?</i> exhibit.</p>	<ul style="list-style-type: none"><li>• Structure that supports one 55” display monitor with 22” touchscreen interface for show selection</li><li>• Step stool</li><li>• Graphics (separate structure):<ul style="list-style-type: none"><li>○ Thematic image treatment with names</li><li>○ Cutout silhouette</li><li>○ Exhibit title sign</li></ul></li></ul> <p><i>Note: Exhibit can be closely associated with 1.4-Highline Challenge.</i></p>	<p>Through a menu of short video segments, visitors find out from the athletes – in the athletes’ own words – what drives and motivates them to push their mind and body to the extreme. Some segments will include stories of the evolution and innovation inherent in extreme sports, and some will include personal anecdotes from the athletes’ everyday lives.</p> <p><b>Featured athlete:</b> <i>Faith Dickey, professional <del>slackliner</del>highliner.</i></p> 


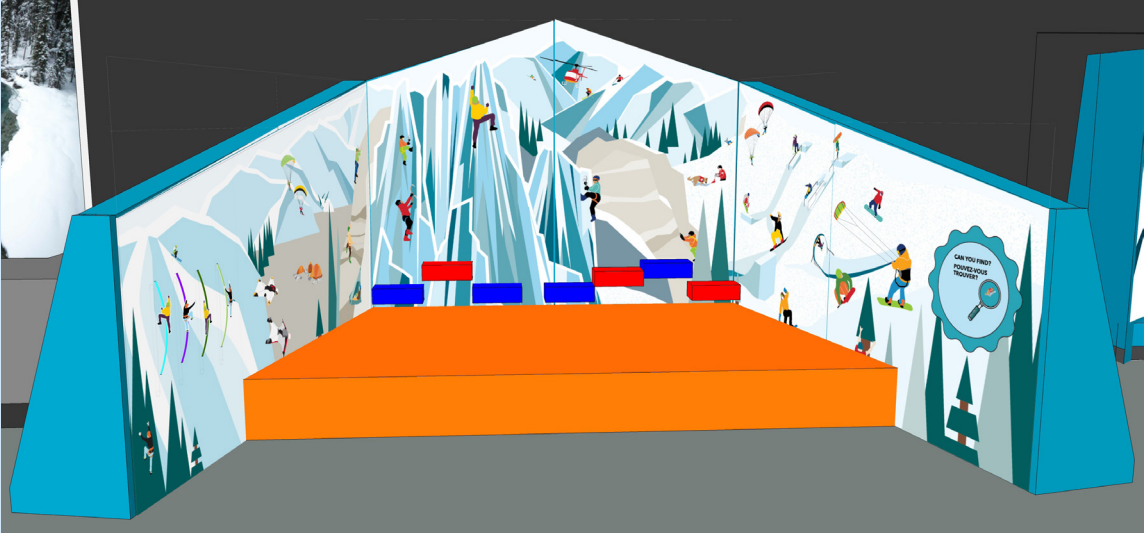


3.2 Flying Simulator	<p>To invite visitors to lie down, spread their arms, and view a first-person wingsuit flight.</p>	<ul style="list-style-type: none"> <li>Flying simulation structure that puts visitors in an angled position with their faces down</li> <li>Special AV: <ul style="list-style-type: none"> <li>32" curved monitor</li> <li>Fans and audio soundscape (both button-started)</li> </ul> </li> <li>Graphics: <ul style="list-style-type: none"> <li>Wingsuit platform</li> <li>Background fabric wall imagery</li> </ul> </li> </ul> <p><i>Note: Exhibit pairs well with 1.3-Innovation &amp; Evolution and 3.3-Wingsuit Design.</i></p>	<p>Lie down, spread your arms and immerse yourself in a wingsuit flight! Step off the edge and hear the wind in your ears as you glide through the air and land safely on solid ground.</p> <p><b>Featured athlete:</b> <i>Jeb Corliss, wingsuit pilot</i></p> 
3.3 Wingsuit Design	<p>To showcase a real wingsuit, and illustrate that this specialized fabric suit is designed for aerodynamics and to create lift by expanding the outer surface of the human body.</p> <p>To explain the forces involved in gliding and how this applied to wingsuit flight.</p>	<ul style="list-style-type: none"> <li>Curved fabric wall backdrop</li> <li>Step stools</li> <li>Mannequin wearing: <ul style="list-style-type: none"> <li>Wingsuit</li> <li>Helmet (possibly with goggles)</li> <li>Gloves</li> </ul> </li> <li>Special AV: <ul style="list-style-type: none"> <li>Monitor</li> </ul> </li> <li>Graphics: <ul style="list-style-type: none"> <li>Curved fabric wall backdrop with thematic imagery to set the scene</li> <li>Interpretive rails (to explain wingsuit flight design and aerodynamics)</li> </ul> </li> </ul> <p><i>Note: Exhibit pairs well with 1.3-Innovation &amp; Evolution and 3.2-Flying Simulator.</i></p>	<p>See a real wingsuit up close. Learn how skilled wingsuit pilots use the principles of aerodynamics to maneuver these inflatable, fabric aircrafts.</p> <p>Watch a wingsuit pilot in action and appreciate the skill involved in this extreme sport.</p> <p><b>Featured athletes:</b> <i>Jeb Corliss, wingsuit pilot</i></p> 

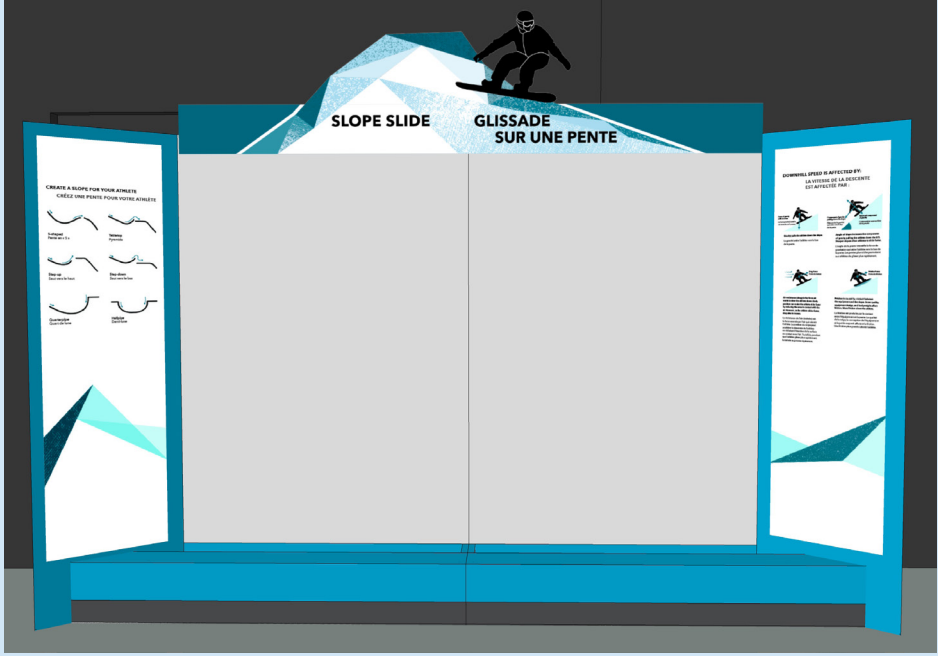
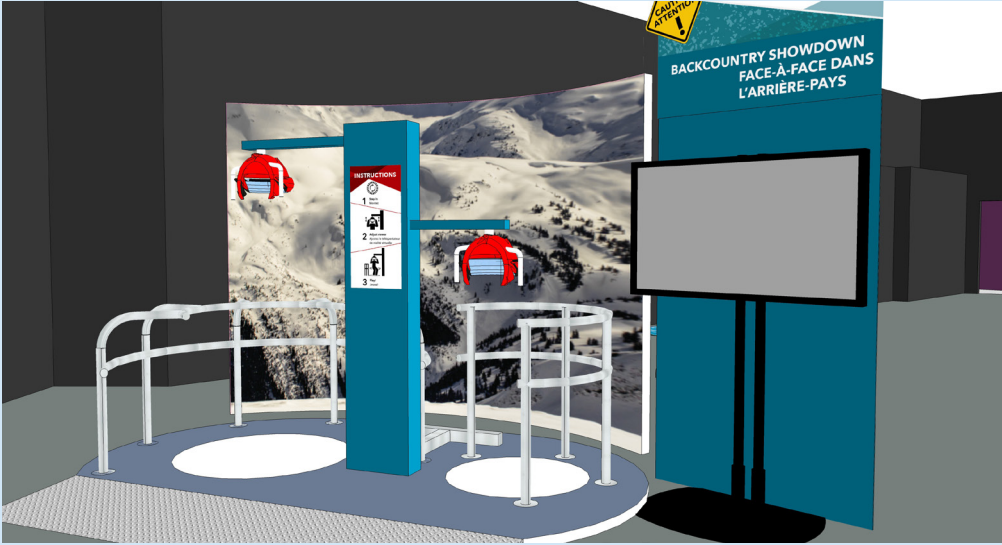


Zone 4: Snow and Ice

Visitors experiment with the physics of snowboarding slopes, virtually race downhill as a skier or snowboarder, and meet backcountry rescue teams and examine some of the real equipment used to save lives off the beaten path. Younger visitors can test their climbing skills on a traversing wall that is just their size.

Exhibit Name	The Big Idea	Key Elements	Visitor Experience
4.1 Meet the Rescuers	<p>To allow visitors to meet and relate to people involved in extreme sports rescues.</p> <p>To display the rescuers' sensation-seeking scores so visitors can compare them to their own results from the <i>What's Your Extreme Sports Personality?</i> exhibit.</p> <p>To enable visitors to see, touch and learn about a variety of specialized equipment.</p>	<ul style="list-style-type: none"> <li>Structure that supports one 55" display monitor with 22" touchscreen interface for show selection</li> <li>Step stool</li> <li>Wall structure to display real rescue equipment with labels and interpretive text</li> <li>Graphics (separate structure): <ul style="list-style-type: none"> <li>Thematic image treatment with names</li> <li>Cutout silhouette</li> <li>Exhibit title sign</li> </ul> </li> </ul>	<p>Through a menu of short video segments, visitors find out from the rescuers – in their own words – what they do and why they do it. Segments may include stories of the training needed, the impact on their families, and accounts of real rescues.</p> <p><b>Featured rescuers:</b>  <i>Anne Kennedy and Seren</i>  <i>Avalanche Dog Rescue Team</i></p> <p><i>Dr. Renata Lewis and Doug Arnott</i>  <i>Backcountry Search and Rescue Physician and Helicopter Pilot</i></p> 
4.2 Kids in the Hills	<p>To provide a space for young visitors to explore climbing, traversing, ropes, and other mountaineering activities in a dedicated space.</p>	<ul style="list-style-type: none"> <li>Small-scale rock climbing wall with hand and foot holds positioned in an arrangement appropriate for young visitors to traverse</li> <li>Appropriate floor cushioning</li> <li>Graphics: <ul style="list-style-type: none"> <li>Thematic image treatment</li> </ul> </li> </ul>	<p>Young visitors test their horizontal traversing ability on a simulated rock-climbing wall, play I-Spy, and explore the ropes used by climbers and mountaineers.</p> 


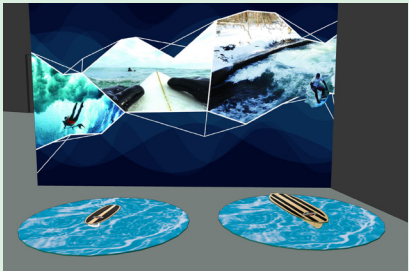



<p>4.3 Design the Ideal Slope</p>	<p>To provide a hands-on opportunity to experiment with slopes, friction and angles to create the fastest, highest or most extreme slope.</p> <p>To encourage collaborative building and learning for all ages of visitors. This space is easily accessible for young visitors.</p>	<ul style="list-style-type: none"> <li>• Stand-alone vertical interactive with large magnetic pieces</li> <li>• Graphics: <ul style="list-style-type: none"> <li>○ Exhibit title sign</li> <li>○ Interpretive</li> <li>○ Instructional</li> </ul> </li> </ul>	<p>Design and build a course for your snowboarder on the magnetic wall. Learn about the relationships between slope angle and the forces of gravity, resistance and friction.</p> 
<p>4.4 Backcountry Showdown</p>	<p>To use 360° video to allow visitors to experience a downhill race from a skier or snowboarder's point of view.</p> <p>To allow spectators to see the preparation for a backcountry downhill experience.</p>	<ul style="list-style-type: none"> <li>• Two rotating headsets to experience the 360° footage from the perspective of athletes in the race</li> <li>• Fabric wall graphic backdrop</li> <li>• Special AV: <ul style="list-style-type: none"> <li>○ Large monitor</li> <li>○ VR viewers and cell phones</li> </ul> </li> <li>• Graphics: <ul style="list-style-type: none"> <li>○ Large, curved fabric wall backdrop with thematic imagery to set the scene</li> <li>○ Exhibit title sign</li> <li>○ Instructional</li> </ul> </li> </ul>	<p>What would it be like to race down a backcountry slope in a showdown of snowboarder versus skier?</p> <p>Step up to one of the virtual reality helmets and twist, slide and glide down the hill from the perspective of your chosen athlete to experience the backcountry in 360° video!</p> <p>If you would prefer a more stable vantage point, step back watch the race from a spectator perspective.</p> 



## Zone 5: In the Water



Visitors' breath-holding and balance skills are put to the test as they are immersed in this underwater realm of freediving (on a single breath), whitewater kayaking, and big wave surfing.

Exhibit Name	The Big Idea	Key Elements	Visitor Experience
5.1 Immersion Room	To give visitors a chance to feel completely immersed in unique extreme sports environments – the sights, sounds and sensations.	<ul style="list-style-type: none"> <li>An 8-foot fabric wall room with capacity for 4-6 visitors and safety railing</li> <li>Special AV: <ul style="list-style-type: none"> <li>Rear-projection (on 3 walls)</li> <li>Surround sound</li> </ul> </li> <li>Graphics: <ul style="list-style-type: none"> <li>Exterior fabric wall with thematic imagery</li> <li>Exhibit title sign</li> <li>Safety instructions</li> </ul> </li> </ul>	<p>Dive into the immersion room to experience videos from a first person point of view and be surrounded by the action.</p> 
5.2 Balance Challenge	To provide a fun balance challenge, related to surfing, for both adult and younger visitors.	<ul style="list-style-type: none"> <li>Two balance boards (appropriate for a variety of ages)</li> <li>Graphics: <ul style="list-style-type: none"> <li>Floor mats with thematic image treatment</li> </ul> </li> </ul>	<p>Test your stability – how long can you stay upright on the balance boards? Challenge yourself by walking back and forth, spinning, or balancing on one foot!</p> 
5.3 One Breath Challenge	<p>To provide a calm and quiet space to slow down, learn about freediving, and practice some breathing exercises.</p> <p>To provide a breath holding challenge for visitors.</p>	<ul style="list-style-type: none"> <li>22" touchscreen computer interactive</li> <li>Seating for two visitors</li> <li>Graphics: <ul style="list-style-type: none"> <li>Exhibit title sign</li> <li>Interpretive</li> </ul> </li> </ul>	<p>Learn about freediving – the sport of diving while holding your breath – from a competitive <u>freediver</u>.</p> <p>When you're ready, take the plunge to see how long you go on one breath. Can you beat your friends or family?</p> <p><b>Featured athlete:</b> <i>Ashleigh Baird, <u>freediver</u></i></p> 





## Zone 6: On the Ground

Visitors get moving as they trace in the footsteps of a parkour athlete, or put themselves into the action at the Flipped Photo Op. They meet two athletes at the forefront of wheelchair motocross – a sport gaining momentum in the adaptive community – and then slow down the action to investigate the role of gravity and rotational forces play in tricks and flips.

Exhibit Name	The Big Idea	Key Elements	Visitor Experience
6.1 Meet the Athletes	<p>To allow visitors to meet and relate to extreme athletes.</p> <p>To engage visitors in compelling personal stories of athletes that emphasize the motivations, drive, passion, training and dedication to achieve great feats.</p> <p>To display the athletes' sensation-seeking scores so visitors can compare them to their own results from the <i>What's Your Extreme Sports Personality?</i> exhibit.</p>	<ul style="list-style-type: none"> <li>Structure that supports one 55" display monitor with 22" touchscreen interface for show selection</li> <li>Step stool</li> <li>Graphics (separate structure): <ul style="list-style-type: none"> <li>Thematic image treatment with names</li> <li>Cutout silhouette</li> <li>Exhibit title sign</li> </ul> </li> </ul>	<p>Through a menu of short video segments, visitors find out from the athletes – in the athletes' own words – what drives and motivates them to push their mind and body to the extreme. Some segments will include stories of the evolution and innovation inherent in extreme sports, and some will include personal anecdotes from the athletes' everyday lives.</p> <p><b>Featured athletes:</b>  <i>Katherine Beattie, Wheelchair motocross (WCMX)</i>  <i>Aaron "WHEELZ" Fotheringham, Wheelchair motocross (WCMX)</i></p> 
6.2 Parkour Park Challenge	<p>To challenge visitors on a small parkour training course.</p> <p>To introduce visitors to parkour, and showcase videos of athletes performing the activities using appropriate and safe techniques. To demonstrate that parkour athletes – <i>traceurs</i> – need training, fitness, agility, precision and strength to practice their sport at an extreme level.</p> <p>To encourage visitors to circulate through and try the course again and again.</p>	<ul style="list-style-type: none"> <li>Parkour "obstacle" training course</li> <li>Appropriate cushioning for visitor safety</li> <li>Special AV: <ul style="list-style-type: none"> <li>43" entrance monitor with introductory video, and footage to showcase proper technique and tips for each of the activities</li> <li>43" exit monitor (with webcam feed) to show visitors' progress along the final cat balance rail</li> <li>22" monitor to display results of the "light landings" obstacle</li> </ul> </li> <li>Graphics: <ul style="list-style-type: none"> <li>Thematic image treatments on fabric and solid walls to create a dynamic feel</li> <li>Exhibit title sign</li> <li>Instructional graphics for course navigation (supplemented by entrance videos)</li> </ul> </li> </ul>	<p>Climb, fall, balance, jump and roll to trace the footsteps of a parkour athlete and learn what the sport is about – the training, the movements and the state of mind involved.</p> <p>Appreciate the artistry and science inherent in efficiently moving your body through natural and urban spaces!</p> 





<p>6.3 Spin, Flip and Roll</p>	<p>To slow down the action and present a clear view of extreme athletes spinning, flipping and rolling.</p> <p>To identify trajectories and rotations, physics and forces acting on both the athlete and his or her equipment.</p>	<ul style="list-style-type: none"> <li>• Spin Browser slow-mo annotated video interactive</li> <li>• 43" monitor</li> <li>• Graphics: <ul style="list-style-type: none"> <li>○ Exhibit title sign</li> <li>○ Themed topper</li> </ul> </li> </ul> <p><i>Note: Associated with 6.4-Flipped Photo Op.</i></p>	<p>Spin forward or backward through footage to explore the role of gravity and rotational forces as extreme athletes flip and rotate through the air. You can spin through the footage at top speed, or slow it right down to investigate it frame-by-frame.</p> 
<p>6.4 Flipped Photo Op</p>	<p>To provide a fun opportunity for visitors to see themselves as executing extreme spinning, flipping and rolling, and to capture a photograph of the experience on their own cameras.</p> <p>To provide safety props for the experience.</p>	<ul style="list-style-type: none"> <li>• Photo op with real BMX bike and skateboard for visitors to pose on</li> <li>• Large, curved fabric wall backdrop with thematic image treatment</li> <li>• Graphics: <ul style="list-style-type: none"> <li>○ Title sign</li> <li>○ Instructional</li> <li>○ Stick-mounted cutout helmets</li> </ul> </li> </ul> <p><i>Note: Associated with 6.3-Spin, Flip and Roll.</i></p>	<p>Get stoked, grab a helmet, strike a pose, and picture yourself and your friends and family in the action at the skatepark!</p> <p>Flip your photo upside down to really get into the action!</p> 


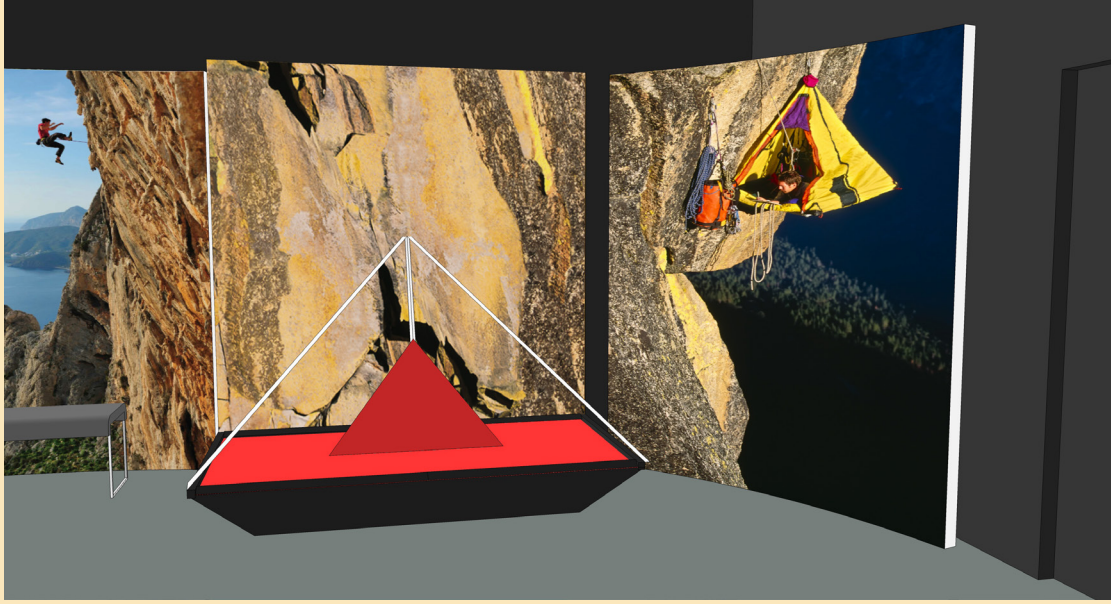


### Zone 7: On the Rocks

A free-standing climbing wall allows visitors to test their grip and traversing skills all the way around the wall. Supporting exhibits dig into climbing-related anatomy, strength, body mechanics, and equipment. Visitors can also snuggle into the portledge and imagine themselves hanging from a mountainside.

Exhibit Name	The Big Idea	Key Elements	Visitor Experience
7.1 Meet the Athletes	<p>To allow visitors to meet and relate to extreme athletes.</p> <p>To engage visitors in compelling personal stories of athletes that emphasize the motivations, drive, passion, training and dedication to achieve great feats.</p> <p>To display the athletes' sensation-seeking scores so visitors can compare them to their own results from the <i>What's Your Extreme Sports Personality?</i> exhibit.</p>	<ul style="list-style-type: none"> <li>Structure that supports one 55" display monitor with 22" touchscreen interface for show selection</li> <li>Step stool</li> <li>Graphics (separate structure): <ul style="list-style-type: none"> <li>Thematic image treatment with names</li> <li>Cutout silhouette</li> <li>Exhibit title sign</li> </ul> </li> </ul>	<p>Through a menu of short video segments, visitors find out from the athletes – in the athletes' own words – what drives and motivates them to push their mind and body to the extreme. Some segments will include stories of the evolution and innovation inherent in extreme sports, and some will include personal anecdotes from the athletes' everyday lives.</p> <p><b>Featured athlete:</b> <i>Will Gadd, ice climber</i></p> 
7.2 Climb It! Challenge	<p>To provide a safe climbing and traversing space with appropriate opportunities for visitors.</p>	<ul style="list-style-type: none"> <li>Rock climbing wall</li> <li>Appropriate floor cushioning</li> <li>Graphics: <ul style="list-style-type: none"> <li>Large, curved fabric wall backdrop with thematic imagery to set the scene</li> <li>Interpretive and instructional rail graphics (part of 7.3)</li> </ul> </li> </ul>	<p>Test your strength, agility and flexibility on the climbing wall! Try to traverse all the way around the wall, or experiment with your grip to get your best hang time!</p> 



<p>7.3 Climb How?</p>	<p>To feature several aspects of climbing theory on the three graphic rails surrounding the 7.2-Climb It! Challenge climbing wall.</p> <p>a) To convey that climbing requires a great deal of lower body and leg strength.</p> <p>b) To emphasize the importance of upper body strength and endurance for climbers.</p> <p>c) To provide visitors with an opportunity to learn about and test the materials and mechanisms used in providing passive and active fall protection when climbing.</p>	<ul style="list-style-type: none"> <li>● Padded graphic rails surrounding 7.2 Climb It!</li> <li>● Selection of tethered nuts and cams for visitors to handle</li> <li>● Graphics: <ul style="list-style-type: none"> <li>○ Interpretive (on three separate railing graphics)</li> <li>○ Instructional</li> </ul> </li> </ul> <p><i>Note: On rails around 7.2-Climb It! Challenge.</i></p>	<p>Discover the many different types of climbing and how the entire body, including the lower body, must be strong, flexible, and powerful to reach inspiring heights.</p> <p>Touch and feel a selection of real nuts and cams and understand the role of passive and active fall protection when ascending rock formations.</p> 
<p>7.4 Cliff Camping</p>	<p>To illustrate a unique and interesting aspect of climbing in extreme environments – hanging tents.</p> <p>To provide a space for visitors of all ages to engage in role-playing, storytelling and social learning.</p> <p>To showcase some real equipment used in climbing.</p>	<ul style="list-style-type: none"> <li>● Floor base and wall support, mounted low for accessibility</li> <li>● Graphics: <ul style="list-style-type: none"> <li>○ Fabric wall backdrop</li> </ul> </li> </ul>	<p>Crawl in and imagine yourself as an extreme climber suspended high above the ground in search of some cliff-side downtime or a nap!</p> 










Zone 8: Exit Experience

This zone encourages visitors to reflect on their experiences in the exhibition by imagining the future of extreme sports, creating a personalized vision of extreme and not-so-extreme goals, and reflecting on some of the inspiring messages from throughout the exhibition.

Exhibit Name	The Big Idea	Key Elements	Visitor Experience
8.1 Be Creative!	<p>To provide a simple interactive for visitors to play with the idea of innovation in extreme sports.</p> <p>To make this interactive easily accessible and attractive for younger visitors.</p>	<ul style="list-style-type: none"><li>• A magnetic wall structure</li><li>• Graphics:<ul style="list-style-type: none"><li>○ Variety of custom magnets with illustrated athletes and sports equipment</li><li>○ Exhibit title sign</li><li>○ Instructional</li></ul></li></ul> <p><i>Note: Exhibit pairs well with 1.3-Innovation and Evolution interactive.</i></p>	<p>Mix and match the magnets to mash up different types of extreme sports, athletes and equipment.</p> <p>Play with the ideas of evolution, innovation and creativity as they pertain to the development of new extreme sports.</p> 



<p>8.2 Be Yourself!</p>	<p>To provide visitors with a space to be reflective about what they've seen and experienced throughout the exhibition.</p> <p>To enable visitors to create a vision board by virtually combining imagery and words in an artistic way.</p>	<ul style="list-style-type: none"> <li>• Two individual 22" touchscreen stations at one sit-down kiosk</li> <li>• 43" monitor</li> <li>• Seating for two visitors</li> <li>• Graphics: <ul style="list-style-type: none"> <li>○ Graphic imagery to inspire visitors' creations</li> <li>○ Exhibit title sign</li> </ul> </li> </ul>	<p>Create a poster that incorporates images and quotes from throughout the exhibition. Reflect on your personal definition of extreme.</p> 
<p>8.3 Be Inspired!</p>	<p>To showcase inspirational video clips of sports not featured elsewhere in the exhibition.</p> <p>To provide a final message, mirroring the enthusiastic and positive messages about extreme sports and its athletes that visitors encountered in the entrance.</p>	<ul style="list-style-type: none"> <li>• Structure that supports one 55" display monitor with 22" touchscreen interface for show selection</li> <li>• Step stools</li> <li>• Graphics: <ul style="list-style-type: none"> <li>○ Large, curved fabric wall backdrop with thematic image treatment including words</li> </ul> </li> </ul>	<p>Leave inspired after viewing curated videos from your favorite realms of extreme sports.</p> <p><b>Featured athlete:</b> <i>Faith Dickey, <u>slackiner/highliner</u></i></p> 









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