

# Exploration Playgrounds

## Product Catalogue



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# About Us...

Exploration Playgrounds is the result of a natural evolutionary step from its parent company, Research Casting International, one of the world's largest Museum technical service providers, housing over 170 molds of dinosaurs and rare archaeological finds from around the world. Exploration Playgrounds offers a unique twist on revitalizing old and tired playgrounds while at the same time providing a fun and educational element of play. Our playground equipment, whether based on museum quality dinosaurs or custom designed play structures from your own vision, focuses on children from 5-12 years of age. Unique themed dig sites and climbers are an irresistible draw for children whether it is to climb on, investigate or simply explore. Imaginations run wild and learning takes place all at once. Not every town has a museum but every town has a playground. Why not invite a child to excavate their own dinosaur skeleton in the midst of his or her own community or engage in an adventure of climbing, digging and exploring.

Our product line is always growing. If you do not see a specimen, dig site or climber that fits with your vision we will work with you to customize and develop one that does.



"Not every town has a museum, but every town has a playground."



# Custom Playground Equipment

Let Exploration Playgrounds take your ideas and your visions to a new level of play with our high quality, innovative themed playground equipment. Our skilled artisans and talented technicians will customize, to extraordinary detail, the playground you have in mind. Stuck on a way to fulfill your vision? Let us offer you some unique ideas crafted over years of experience in creating themed exhibits.

Our equipment is guaranteed to provide the opportunity for children to explore, interact with their environment and discover a whole new level of imagination just waiting to burst out.

Exploration Playgrounds themed environments and equipment, whether inspired by your ideas or selected from our catalogue, is designed and built to be compliant with CSA, ASTM or IPEMA standards. We offer third party inspection during the design phase, fabrication phase and prior to shipping.

Providing a safe environment, inspired by the imagination, for children to soar and explore, is our utmost directive.



## Rockwork

The options are limitless, whether inspired by mother nature or your own designers, our finely crafted rock walls, climbers and natural environments will not be surpassed for durability, quality or craftsmanship.

From artificial rockwork and trees, to themed interiors and park scapes, our sculptors and skilled technicians are able to capture the details of nature and recreate a seemingly seamless recreation of nature in order to either blend into the outdoors or bring the outdoors in, for an interior exhibit.

Exploration Playgrounds utilizes a number of materials in replicating our rockwork. Our materials include:

### GFRC (glass fibre reinforced cement)

Master molds are first created and then used for making GFRC cast rock environments and climbers, capturing all the detail and look of real stone. Our molds are professionally made in a controlled environment and we use only high quality latex or RTV silicone rubber. Our molds will last for numerous casts depending on the care given to the molds.

### Shotcrete Carved Rock

Shotcrete sprayed onto mesh and steel is a common method used for creating rocks and trees and is a durable, effective and efficient method, especially when creating large, outdoor or indoor exhibits.

### Fibre Reinforced Plastic (FRP)

Fibre reinforced plastic follows essentially the same process as when we use GFRC, however, FRP is inherently fire and weather resistant and the finished product is thinner, light weight and also very authentic in appearance. Where weight is a concern, this would be a preferable material to work with.

## Rib Climber

Throughout time, gigantism occurs in species as a means of competitive advantage. Large Sauropod dinosaurs with their long necks and tails are a prehistoric example of this development in nature for a competitive advantage. The advantage of a Sauropod's long neck was that it enabled it to feed on plants over a very wide area without needing to move their bodies - a potentially large savings in energy for a 30 to 40 ton animal.

From fossil evidence, it's clear that dinosaurs were more massive, species by species, individual by individual, than any other group of animals that ever lived, including modern mammals. The rib climber is an example of the extreme size that prehistoric animals grew to be.

Measurements: 9'-11<sup>16</sup>/<sub>16</sub>" (L) x 4'-8<sup>3</sup>/<sub>16</sub>" (W) x 46" (H)  
Approx. Weight: 1000 lbs



## Ball Rock Climber



Children love to play and they love to explore. This appears to be a universal trait among children of all ages, from the moment they begin to crawl. Another common trait, in nearly all children, irrespective of gender or background is that they love to climb. Take a group of kids to the local playground, school or even a friend's backyard, and at some point they will find something to climb. The higher they can climb the better. Our rock climber is an attractive and challenging addition to any park, playground or interactive children's exhibit.

\*Call for details on Measurements & Weight

# Triceratops Skull Climber

Triceratops, an inhabitant of the late Cretaceous period, lived 68 to 65 million years ago. With its large bony frill and three horns, it is one of the most recognizable of all dinosaurs. Although traditionally viewed as defensive weapons against predators, popular theories claim that the horns on its head may have been used in courtship and dominance displays, much like the antlers and horns of modern reindeer, and mountain goats.

The most distinctive feature is the large skull which is among the largest of all land animals. It could grow to be over 2m (7ft) in length, and could reach almost a third of the length of the entire animal. Triceratops shared the prehistoric landscape with, and may have been preyed upon by, the fearsome Tyrannosaurus rex.

The Triceratops skull climber would certainly be a fun and educational addition to a park or interactive museum exhibit. A climber such as this would be sure to draw attention in the community.

Measurements: 8' (L) x 5' (W) x 5'-7" (H)

Approx. Weight: 2,615 lbs

# T-Rex Skull Climber

Probably the most famous and easily identifiable dinosaur is the Tyrannosaurus rex. In Latin, Tyrannosaurus means tyrant lizard and rex means "king". Tyrannosaurus rex is commonly abbreviated to T-Rex, and is a fixture in popular culture. It lived throughout what is now western North America. Fossils are found in a variety of rock formations, dating to the last three million years of the Cretaceous period, approximately 65 to 68 million years ago.

Predator or scavenger? The debate continues, however, one indisputable fact is that the T-Rex skull is one of the most stunning and fiercest looking skulls of all time. T-Rex had teeth up to 12 inches in height which replaced themselves continually throughout their lifetime as they would be damaged from crushing the bones of its prey.

The T-Rex skull climber is sure to attract children of all ages to come climb, touch and study the once most feared dinosaur in history whom was revered for its dominance of the prehistoric world.

Measurements: 5'-11 1/4" (L) x 3'-9 7/8" (W) x 4'-11 7/16" (H)

Approx. Weight: 2,500 lbs



# Specimen Dig Sites

Specimen dig sites containing dinosaurs and pre-historic animals have been molded from original fossils housed in museum collections around the world. The digs are cast in durable fiberglass reinforced concrete which is imbedded into the cast to ensure that they will never fade or breakdown. Our dig sites are geared towards children 5-12 years old. Designed to be an effective teaching aid, our dig sites combine learning with fun. The sites are CSA and ASTM compliant and may be inspected by a third party, if desired, prior to shipping.

## Allosaurus Dig Site

The name Allosaurus means "different lizard" and was the top predator in its time, 145-155 million years ago. The Allosaurus is often the dinosaur you see featured in books and movies. Some paleontologists believe that they may have attacked in packs like wolves of today. The Allosaurus had a huge head, sharp serrated teeth, walked on two powerful legs, had short arms and three-fingered hands. The Allosaurus is one of the best known dinosaurs and is exhibited in museums around the globe.

Measurements: 31'-3 1/4" (L) x 3'-10 15/16" (W)  
Approx. Weight: 1,000 lbs



Allosaurus Dig Site

## Stegosaurus Dig Site

Stegosaurus lived 145 to 150 million years ago and was a plant eating dinosaur. It too is easily one of the most recognizable dinosaurs with its distinctive tail spikes and bony plates along its back. It is believed that the plates were used to regulate body temperature in addition to acting as a form of defense. The tail spikes also served as an effective method of defense against its predators.

Measurements: 29'-5 9/16" (L) x 9'-5 9/16" (W)  
Approx. Weight: 2,500 lbs



Mastodon Dig Site

## Prestosuchus Dig Site

Prestosuchus, although it resembled a dinosaur, was actually a rauisuchian archosaur, specifically belonging to a group known as prestosuchids. Prestosuchus had a deep skull, serrated teeth and lived in Brazil of the Late Triassic Period. It reached lengths of nearly 5 metres. It was an ambush predator and would have hunted smaller animals. It had powerful legs that indicate it was a fast runner.

Measurements: 17'-11/18" (L) x 4'-10 7/16" (W)  
Approx. Weight: 1,000 lbs

## Mastodon Dig Site

The Mastodon is a large tusked mammal that has been found in Asia, Africa, Europe, North and Central America. Mastodons first appeared almost 40 million years ago with the oldest fossil being unearthed in the Congo. While mastodons have a similar appearance to that of mammoths and modern elephants they are only distantly related. There are many subtle differences between the species but one of the most striking features is that of the teeth. Mastodon teeth have blunt cone like molars

for chewing coarse food such as shrubs and tree branches as opposed to Mammoths which have flat grinding plates as teeth for eating grasses. The American Mastodon (*Mammuth americanum*), the most recent member of the family, lived about 3.7 million years ago until it became extinct about 10,000 years ago.

Measurements: 15' (L) x 10' (W)  
Approx. Weight: 2,500 lbs

## Parasaurolophus Dig Site

The name, *Parasaurolophus* means "near crested lizard." The name is indicative of the most noticeable feature which is the cranial crest protruding from the rear of the head which was made up of the premaxilla and nasal bones. Our *Parasaurolophus* dig site is based on a specimen owned by the Royal Ontario Museum (ROM). The fossil find consists of a skull and partial skeleton which is missing most of the tail and the hind legs below the knees. It was found by a field party from the University of Toronto in 1920 near Sand Creek along the Red Deer River in Alberta, Canada approximately 73-76 million years ago.

Measurements: 22' (L) x 10' (W)  
Approx. Weight: 3,000 lbs

## Pachycephalosaur Dig Site

*Pachycephalosaur*, meaning "thick headed lizard," lived 65 to 70 million years ago. The unique feature of this dinosaur is its unusual domed shaped skull. Paleontologists debate as to whether they used their dome skull to battle against rival members of its species and to ram predators or for display and courtship. *Pachycephalosaur* had very small teeth that would have not been very useful for eating anything more than soft vegetations such as leaves and fruits. It is believed it stood on two legs and had two short arms with five fingers on each.

Measurements: 3'-11/12" (L) x 2'-11" (W)  
Approx. Weight: 150 lbs



Pachycephalosaur Dig Site

## Ankylosaur Dig Site

A complete specimen of the Ankylosaurus, to date, has not been discovered, however that has not stopped the Ankylosaurus from being known as the archetypal "armoured" dinosaur. The Ankylosaurus is thought to have had a heavily armored body with a massive bony tail club. The famous tail club is thought to have been an active defensive weapon, capable of producing enough of a devastating impact to break the bones of an assailant. The name Ankylosaurus means "fused lizard" and relates to the bones in the skull and other parts of the body that were fused to increase their strength.

Measurements: 5'-8" (L) x 4'-3 1/2" (W)

Approx. Weight: 350 lbs

## Coelophysis Dig Site

Coelophysis was a slender, meat eating dinosaur that lived approximately 215 million years ago. It's name means "hollow form" referring to the fact that the bones of Coelophysis were hollow.

Measurements: 6' (L) x 4' (W)

Approx. Weight: 130 lbs

## Parksosaurus Dig Site

Parksosaurus, was a small plant eating dinosaur which lived over 70 million years ago. The Parksosaurus was not very large in comparison to other dinosaurs, measuring only 3 feet in height and 6 feet in length. Dieting mainly on branches and leaves, he would have been prey to many dinosaurs of his time. Parksosaurus was an excellent sprinter and primarily used its speed as a means of survival.

Measurements: 8' (L) x 16' (W)

Approx. Weight: 150 lbs



Ankylosaur Dig Site



Protoceratops Dig Site

## Protoceratops Dig Site

Protoceratops was a plant eating dinosaur that lived 70 to 83 million years ago. Protoceratops was approximately 6 to 8 feet in length. It walked on four legs, had a large head, a bulky body, a parrot-like beak, cheek teeth and a small frill on its head. Males may have had larger frills than females.

Several skeletons of Protoceratops have been found close together drawing the conclusion by paleontologists that they may have lived in herds.

Measurements: TBD

Approx. Weight: Approx. 330 lbs

## Saurornitholestes Dig Site

The Saurornitholestes, a fast, agile, meat eating dinosaur, lived about 70 to 80 million years ago. The name means "lizard-bird thief". This refers to the physical similarities of its skull with modern birds. Another interesting featuring of the Saurornitholestes is its sharp, sickle like toes used for attacking prey.

Measurements: 3'-6" (L) x 2' (W)

Approx. Weight: 70 lbs



## Troodon Eggs Dig Site

The Troodon is thought to have been an intelligent and fast, meat eating predator that lived 75 to 65 million years ago. The name Troodon means "wounding teeth" which is derived from its sharp serrated teeth. The discovery of fossil nests are very important as they reveal a bounty of information about a dinosaurs life. The fossilized Troodon nest tells us that it was constructed of sediment and was dish shaped with a pronounced raised rim encircling the eggs. The more complete nests had between 16 and 24 eggs. The eggs are shaped like elongated teardrops with the more tapered ends pointed downwards and imbedded about halfway in the sediment. These nests indicate to paleontologists that the Troodon warmed its eggs with its body in the open dirt.

Measurements: 3'-11/12" (L) x 2'-11" (W)

Approx. Weight: 140 lbs

## Sauropod & Theropod Footprints Dig Site

Dinosaur footprints, also referred to as track ways, are used to help determine both physical and behavioural traits of different dinosaurs. Examples of information gathered from footprints may include the determination of whether the dinosaur was fast or slow based on how closely the footprints are located and the size of a dinosaur can be estimated by the depth of the footprints. Footprints can also help determine what family it belonged to. For example Sauropods were dinosaurs that walked on four legs and Theropods were bird-like and walked mainly on two legs.

\*Call for more details



Troodon Eggs Dig Site

All our dig sites are molded from original fossils housed in museum collections around the world. A percentage of the sales from the dinosaur dig sites is given to the Natural History Institution, who is the originating owner of the specimen, to help continue paleontological studies.

Equipment Name	Dimensions (L x W x H)	Approx. Weight (lbs)
<b>LARGE DIG SITES:</b>		
Allosaurus Dig Site	31'-3 1/4" x 8'-2 9/16"	1,000 lbs
Stegosaurus Dig Site	29'-5 9/16" x 9'-5 9/16"	2,500 lbs
T-Rex Dig Site	36' x 14'	15,000 lbs
Prestosuchus Dig Site	17'-1 1/8" x 4'-10 7/16"	1,000 lbs
Mastodon Dig Site	15' x 10'	2,500 lbs

### SMALL DIG SITES:

Pachycephalosaur Dig Site	3'-11/12" x 2'-11"	150 lbs
Ankylosaur Dig Site	5'-8" x 4'-3 1/2"	350 lbs
Coelophysis Dig Site	6' x 4'	30 lbs
Parksosaurus Dig Site	8' x 16'	150 lbs
Protoceratops Dig Site	5'-15/16" x 3'-10 15/16"	30 lbs

Troodon Egg Dig Site	3'-11/12" x 2'-11"	134 lbs
Sauropod & Theropod Footprints Dig Site	*various on specimen	

### CLIMBERS:

Rib Climber	9'-11/16" x 4'-8 3/16" x 46"	1,000 lbs
Triceratops Skull Climber	8' x 5' x 5'-7"	2,615 lbs
T-Rex Skull Climber	5'-11 1/4" x 3'-9 7/8" x 4'-11 7/16"	2,500 lbs

### EQUIPMENT MATERIALS:

- Panel:** All Panel casts (except Rib Climber) are constructed of durable fiberglass reinforced concrete.
- Fasteners:** All Panels have a F44/ 1/2" Ferrule inserts that can accept a 1/2" bolt. The bolt can be embedded into a concrete slab, footing or bolted to a steel frame.
- Finishes:** A uniform color is imbedded into the surface coat of the cast concrete panel. The individual bones are then etched with an acid stain. Then a concrete sealer is applied to the entire surface. \*\*Anti-graffiti coating is also available.
- The concrete cast panels have imbedded color to highlight the dinosaur bone from the background matrix to ensure that the panels will never fade or breakdown.
- Warranty:** 10 Years

# \*\*Optional Extras\*\* Durable Outdoor Signage

Durable outdoor signage, of each specimen, is available at an additional cost. Each sign provides an explanation as to where the skeleton was originally found and its importance to the science of paleontology.

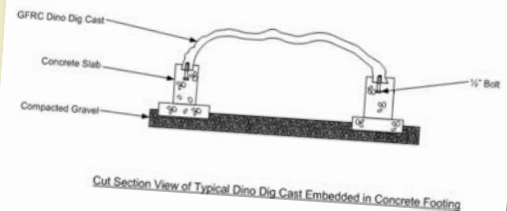
Panel Size: 37" x 24" Graphic Panel with steel frame



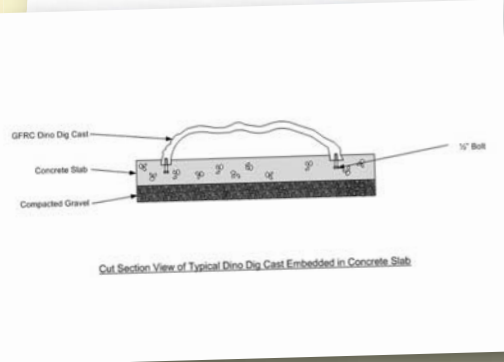
## Installation

Our Dig Pit's have been designed with ease of installation in mind. There are three methods that can be used to install them. All of these methods can be performed by a contractor with a basic knowledge of concrete or one of our dealer's installation teams. The Dig Pit's all come with a series of F44 inserts in the back of the panels. These inserts are basically a 1/2" nation course female thread that is embedded into the cast panel. The inserts are used to secure the panel one of three ways: 1) to a concrete slab, 2) to a footing, or 3) to a steel frame.

If a concrete slab method is used, the slab must be installed to local code and frost line requirements. There are two ways of installing this method. The first is to pour the concrete slab and then epoxy the panels to the slab by placing a threaded rod in the inserts and drilling corresponding holes in the concrete to receive the threaded rod. The second is to block the panel up in its final location and twist 1/2" J bolts into the inserts on the backside. This is followed by pouring the slab concrete under the panels. The concrete is usually poured slightly higher than the underside of the panel with both of these techniques to allow for a clean finish where the two surfaces meet.



Cut Section View of Typical Dino Dig Cast Embedded in Concrete Footing



Cut Section View of Typical Dino Dig Cast Embedded in Concrete Slab

If the footing method is used, the footing must be installed to local code and frost line requirements. There are two ways of installing this method; The first is to pour the footing and then epoxy the panels to the footing by placing a threaded rod in the inserts and drilling corresponding holes in the footing to receive the threaded rod. The second is to block the panel up in its final location and twist 1/2" J bolts into the inserts on the backside. This is followed by pouring the footing under the panels. The concrete is usually poured slightly higher than the underside of the panel with both of these techniques to allow for a clean finish where the two surfaces meet.

The panels can also be bolted to a steel frame if required. This method may be used where accessibility is an issue in order to elevate the panel above the ground. This method is recommended only for the smaller Dig Pits.



*Fun*  
*Recreation*  
*Discovery*  
*Educational*



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