FEATURE CATALOG

FOR HEAD START

PREPARED BY:
WPI TEAM
MIKE, WILL,
MARCO, & MADISON
<table>
<thead>
<tr>
<th>Feature</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bicycle Water Pump</td>
<td>02</td>
</tr>
<tr>
<td>Description &amp; learning benefits of the feature</td>
<td></td>
</tr>
<tr>
<td>Climbing Structure</td>
<td>04</td>
</tr>
<tr>
<td>Description &amp; learning benefits of the feature</td>
<td></td>
</tr>
<tr>
<td>Balance Scale</td>
<td>06</td>
</tr>
<tr>
<td>Description &amp; learning benefits of the feature</td>
<td></td>
</tr>
<tr>
<td>Simple Machine Sand Tool</td>
<td>08</td>
</tr>
<tr>
<td>Description &amp; learning benefits of the feature</td>
<td></td>
</tr>
<tr>
<td>Shadow Tarp</td>
<td>10</td>
</tr>
<tr>
<td>Description &amp; learning benefits of the feature</td>
<td></td>
</tr>
<tr>
<td>Additional Ideas</td>
<td>12</td>
</tr>
<tr>
<td>Remaining play feature ideas that did not arrive in the top five final designs with a breif description</td>
<td></td>
</tr>
</tbody>
</table>
BICYCLE WATER PUMP
BICYCLE WATER PUMP

Learning Benefit

Since the feature is mostly clear, the children can learn how water moves as a result of their actions. It promotes sensory play, fine motor skills, and critical thinking. The lego water flow also encourages sensory play, fine motor skills, and constructive play.

Description

This feature uses a bicycle wheel to pull water from beneath the ground, out of the spout, onto the Lego table. As the child cranks the wooden handle, the rope with stoppers pulls water up the PVC pipe and down into the spout. It has elements made out of plexiglass so the children can see the process. Once the water is pumped, it flows into a flume within Lego tiling so children can place blocks in various locations to move the water flow.
CLIMBING STRUCTURE

Description

A wooden climbing structure painted to replicate the layers of the earth working from crust to inner core. One side of the structure will have rope for a climbing net and the other side will be a ramp covered in panels with climbing blocks. The middle of the feature will have a slide and a bar across the top railing to prevent children from running down. Each long side of the feature will have wide cut-out windows to enhance visibility. There is a wide tunnel cut through the middle of the feature and underneath, the ceiling will have a led/painted constellation ceiling. Lastly, the railings of the top of the structure will have pvc tubes for a music feature.

Learning Benefit

Promotes fine motor skills, physical activity, collaboration skills between children, musical expression, and learning about constellations and the earth’s layers.
BALANCE SCALE
Description

A wooden structure that allows the horizontal beam to move up and down similar to a seesaw, based on the weight of buckets place onto the eye hooks. There are three eye hooks on the left and right side of the beam. On the vertical beam, there are three different measurement tools. On the middle back side there is a realistic ruler painted onto it. On the left and right side of the vertical post, there are pinecones and fethers painted vertically so the children can reference their physical height to the nature based objects.

Learning Benefit

Explore mathematical weight differentiation and balance. Promotes measurement skills and comparative thinking by referencing the child’s height to nature-based objects or between different children.
SIMPLE MACHINE
SAND TOOLS
SIMPLE MACHINE
SAND TOOL

Description
A simple machine where the child sits in the excavator and uses two hand levers to scoop and drop sand.

Learning Benefit
Improves a child’s manual dexterity, hand-eye coordination, fine motor skills, and directional vocabulary (up/down and left/right).
SHADOW TARP
SHADOW TARP

Description
A movable wooden figure with a removable tarp top that casts shadows on the ground below of shapes, colors, animals, its up to you!

Learning Benefit
Improves children’s spatial awareness, recognition of shapes, colors, sizes, ecosystems, and development of creative thinking.
ADDITIONAL IDEAS

Rubber Band Wall
Use your creativity to make designs out of rubber bands!

Towers of Hanoi
A large scale version of a classic puzzle

Magnetic Gear Wall
A metal wall with arrangeable gears
ADDITIONAL IDEAS

Sand Pendulum
A hanging funnel for sand to flow through, and create designs on a surface below.

Plinko
Drop a ball through a series of pegs and evaluate what happens!

Raised Sensory Table
A table with different sections of sensory based materials.
ADDITIONAL IDEAS

Pulley System
A set of pulleys to transport a child’s favorite material across the play area.

Music Wall
A wall of fun recycled music features that the children can compose a masterpiece with.

Simple Circuit Cubes
Small enclosed circuit components that children can make basic circuits with.
ADDITIONAL IDEAS

Raised Garden Bed
An area for children to practice their gardening skills in the playground

Big Dice
A set of large foam dice for playground games

Inflatable Raft
A large raft for the children to bounce around in and go on creative adventures from the safety of the Mill Swan play area
ADDITIONAL IDEAS

Puppet Ecosystem
A puppet show enveloping the ideas of natural ecosystems and fostering creativity

Stream Table
A table that simulates water flow and erosion through the use of small pebbles, sand, and a water pump source

Treasure Hunt
A sand table with buried treasure ranging from small toys to dinosaur bones. The contents can be varied for many days of fun exploration.