“...Light is not so easily compartmentalized. Its beguiling combination of fragility and endurance, of delicacy and power, captures the imagination just as it has fascinated scientists through the ages.”

-Brian Clegg, Light Years
“People are hungry for stories. It’s part of our very being. Storytelling is a form of history, of immortality too. It goes from one generation to another.”

-Studs Terkel
a playscape where children can build and tell stories with light
design principles

- magic, beauty, joy and wonder
- authenticity
- universal design
- flexibility
- variation in design
- amenities for the whole family
- supportive layout and transition
open-endedness novelty brilliance mystery
loose parts illusion of risk changes of scale
exhibit floor plan
1 wayfinding element
1 environment element
5 activities
The Sparkway is a river of Sparks floating above, illuminating a pathway through the exhibit, and touching down into pockets of Lighttails.
Lighttails are pockets of dense Spark posts, creating interesting spaces for children to navigate or linger in. In addition, each Lighttail can be build upon with loose Sparks around the exhibit.
illuminos

exhibit floor plan
illuminos
Blocks that brighten as stories and structures connect
illuminos

What it does
• supports 3-dimensional storytelling
• supports parent/child collaboration
• builds conceptual relationships

Features
• 4-directional connectivity
• customizable graphic inserts
• interacts with the floor, table, and wall

Developmentals
• social skills
• bilateral coordination
• fine motor skills
• motor planning
• pre-academic skills
constellation wall

exhibit floor plan
constellation wall
Pictures out of points of light, as tall as you can reach.
constellation wall

What it does
• lets children arrange lights on the wall into patterns and pictures
• changes the appearance of the play environment from moment to moment

Features
• ideal for both Sparks and Illuminos
• large open canvas area
• has both close-up and large scale play

Developmentals
• gross motor skills
• visual perception
• pre-academic skills
• social skills
exhibit floor plan

sparkitechture
sparkitechture
Structures that light up as they are being built
sparkitecture

What it does
• lets children build everything from towers to cities out of Sparks
• support collaboration

Features
• specially shaped connector blocks
• works with metal surfaces and Lighttails

Developmentals
• social skills
• gross motor skills
• hand-eye coordination
• bilateral coordination
• motor planning
• pre-academic skills
circuits
Light machines, powered by children
circuits

What it does
- bring light and motion together
- demonstrate causal relationships and basic mechanics
- mix different colors of light

Features
- 5 different machines, each with its own unique interactions
- uses Sparks as light elements

Developmentals
- gross motor skills
- social skills
- visual perception
- motor planning
- sensory processing
exhibit floor plan
cave painting
cave painting
Images to reveal using light.
Pictures to create that glow with a light of their own.
cave painting

What it does
• lets children discover hidden images by sweeping walls with spark beams
• lets children create temporary paintings with light

Features
• a mysterious cave to explore
• walls that react to different types of light

Developmentals
• sensory processing
• visual perception
• motor planning
• social skills
how to find out if the concept works?
3 rounds of prototyping
3 user tests
15 parents
27 children
additional information
illuminio’s exploded view
illuminio's charger
spark stacking
spark’s exploded view
spark’s charger