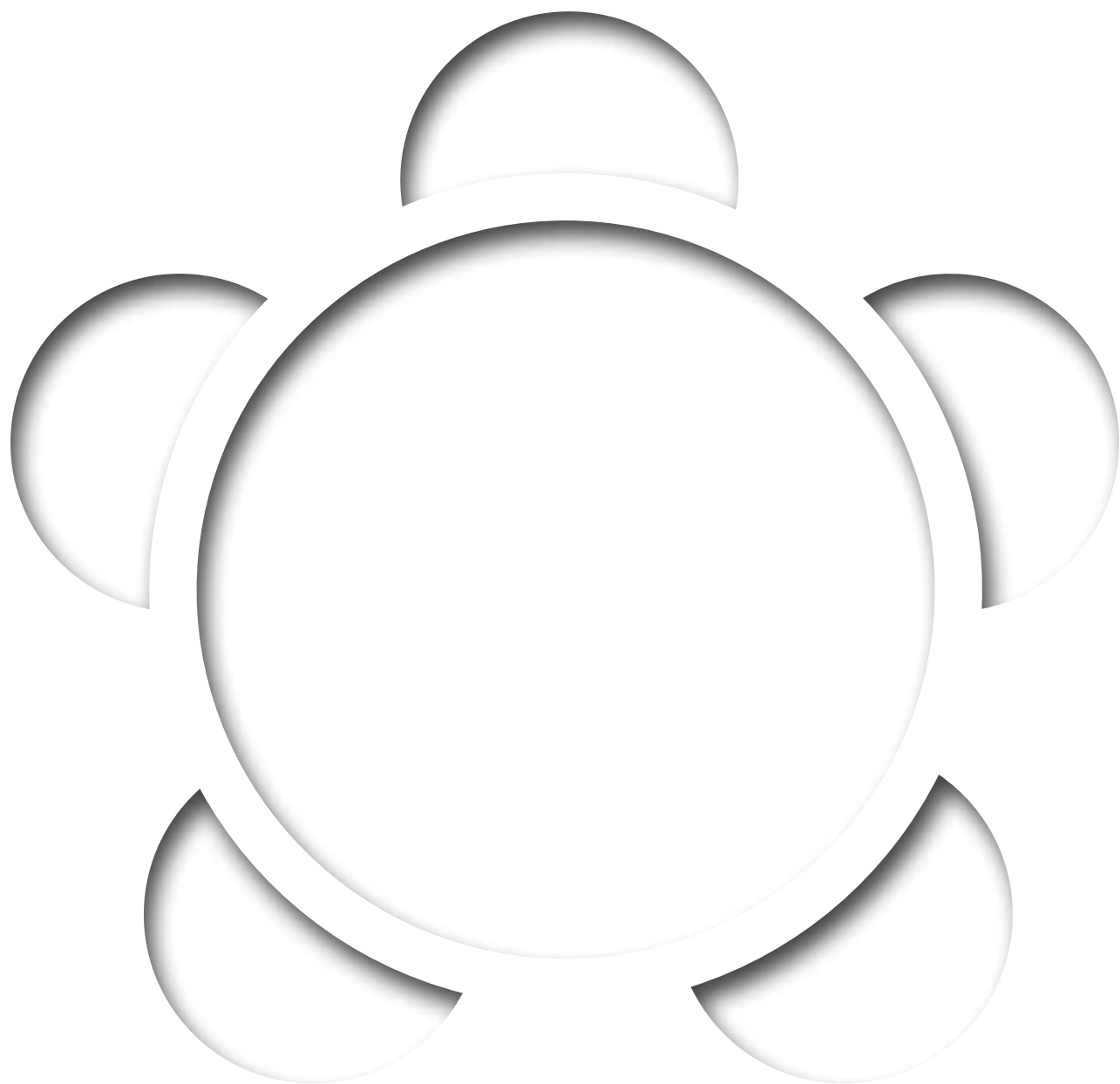


PRODUCT CATALOGUE



ABA SCIENCE PLAY
Playgrounds of Tomorrow



PRODUCT CATALOGUE



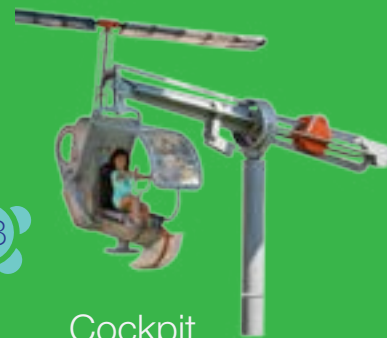
ABA SCIENCE PLAY
Playgrounds of Tomorrow



ABA SCIENCE PLAY
Playgrounds of Tomorrow



PLAY
LEARN
CARE



Cockpit



Flying High



Moon Walk

CONVENTIONAL,
OR IS IT?

UP IN THE AIR



Spinning Universe



Twister



Seesaw



TABLE OF CONTENTS

BALANCE



Simon Says

48



Pythagoras Treadmill

51



Mobius Bench

57



What Goes Around Comes Around

59

SIT BACK AND RELAX



Warranty. Design. Safety.

67



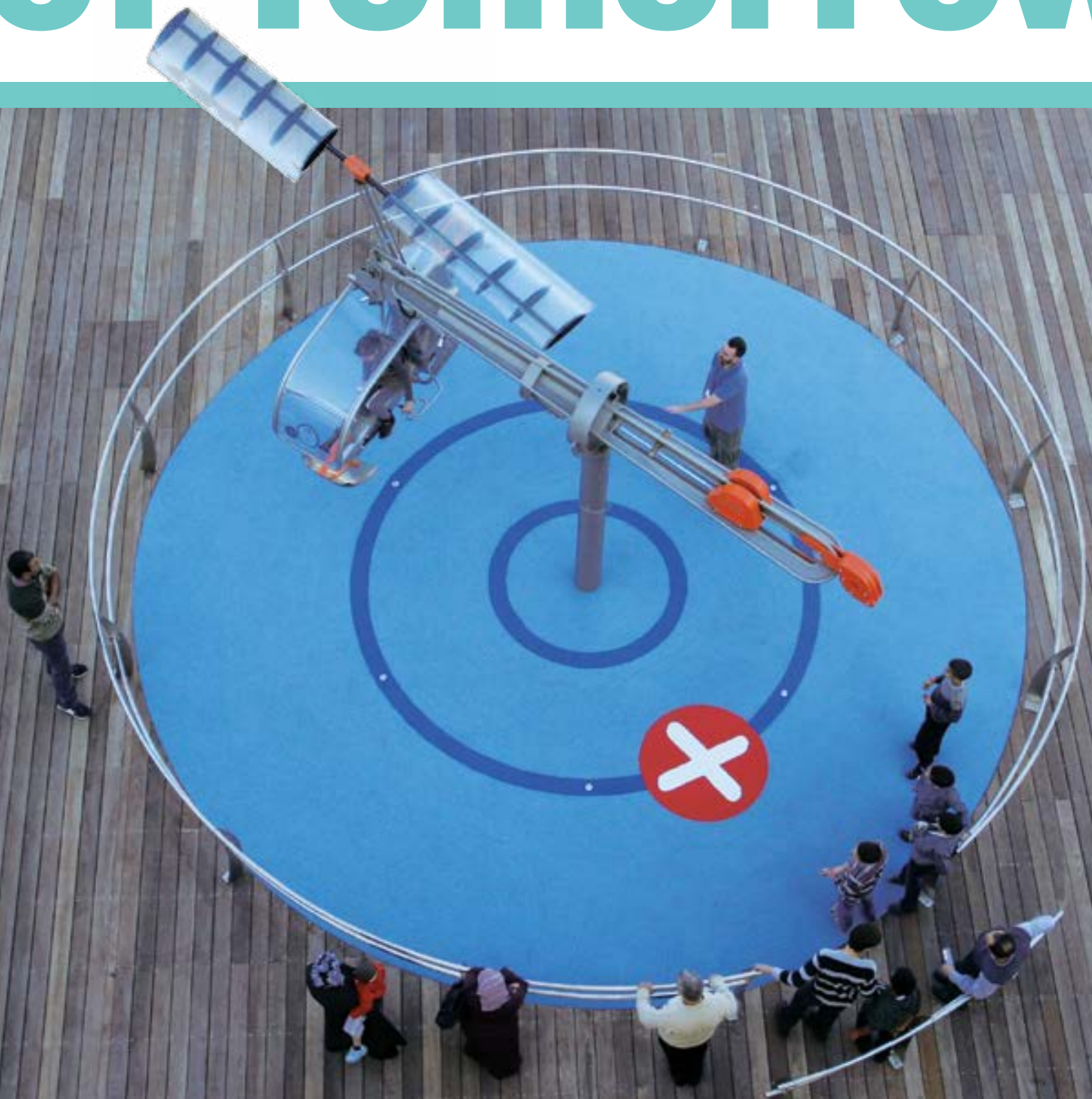
Sign Posts

60

Playgrounds



of Tomorrow



Our Vision

A.B.A. Science Play heralds a revolution in outdoor play equipment for children of all ages, bringing interactive play and learning to the playground as never before.

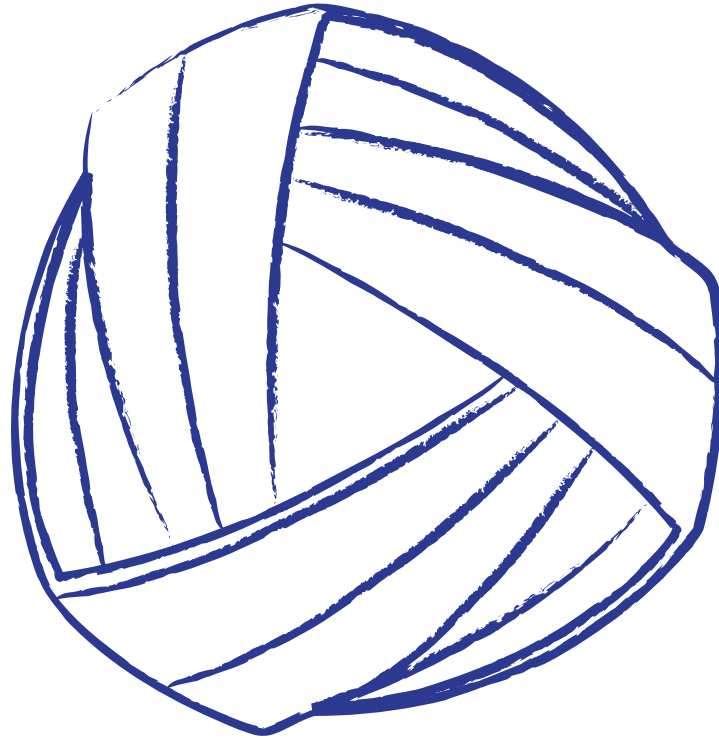
The company brings to the market a totally new concept of playground equipment for sale globally. The play equipment combines conventional fun play with the added attraction of hands-on learning and acquisition of scientific knowledge of the world we live in and our environment.

More and more children nowadays are playing interactively on computers and at A.B.A we took this interactive play into the world of outdoor play. In addition to existing playground equipment, A.B.A introduces visual and audio elements, electronic components, water, light, solar energy, and much more.

Playgrounds will encourage combined playing activities for children and parents accompanying them, strengthening the bonds between parent and child through play.

You are invited to join us and enter this new realm of Fun & Learning.





KEY ELEMENTS



KEY ELEMENTS

Challenging Environment Brings Long Lasting Fun

Our playgrounds include conventional play items such as slides, swings and carousels alongside innovative play structures. We construct stimulating environments to constantly attract children of all ages to participate in our world of fun.



Fun & Play

A smiling woman with blonde hair is shown from the chest up, wearing a light blue t-shirt. A young girl with blonde hair is sitting on her shoulders, pointing her right index finger upwards. They are both looking up at the sky. The background is a bright blue sky with scattered white clouds. The overall mood is joyful and positive.

Joint Parent & Child Experience

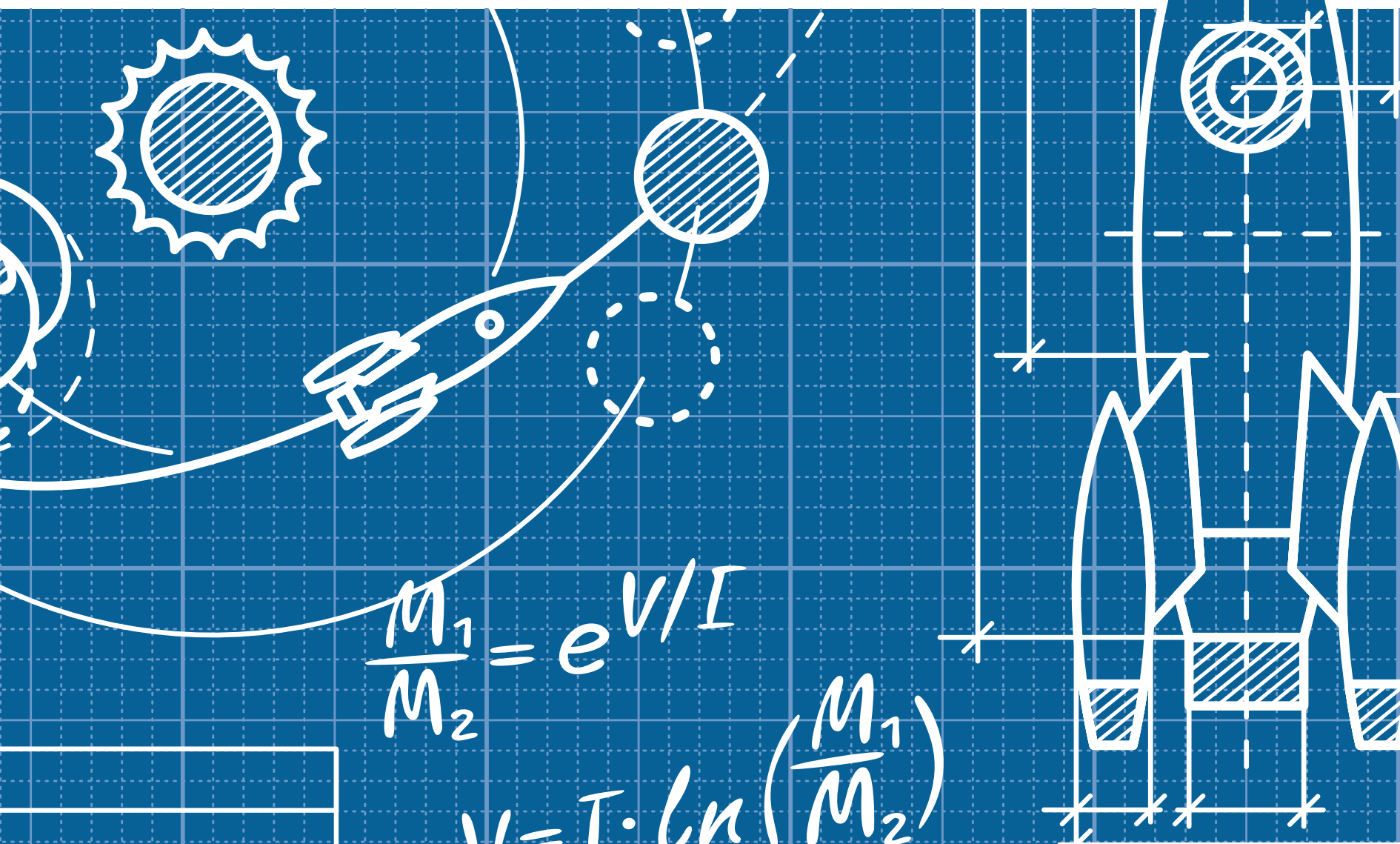
The parks are designed to incorporate many elements to attract parents to join their children and participate in joint activities that will strengthen the parent & child bond.

Understanding the Laws of Physics

The wide range of play items demonstrates the basic laws of science and the world around us, integrating them into the play equipment.

The equipment demonstrates phenomena such as centrifugal forces, Pascal's laws, aerodynamics, reflection and absorption of light and heat, energy production and many more principles taken from the school curriculum.

More Scientific, More Stimulating, More Fun



Scientific Knowledge





Our Envir

Electric Components, No Electricity

The elements of the equipment does not need a power source to function. All power is derived from alternate clean energy sources such as kinetic energy, wind and solar power. During play time, the children experience the self generation of electricity, when their activities generate energy that is captured and transformed into electricity.

Many of the products include vocal narration that explains different insights and ideas relevant to the product and is turned on during play.

Decorative and flashing lights accompany the products to create a festival of light.





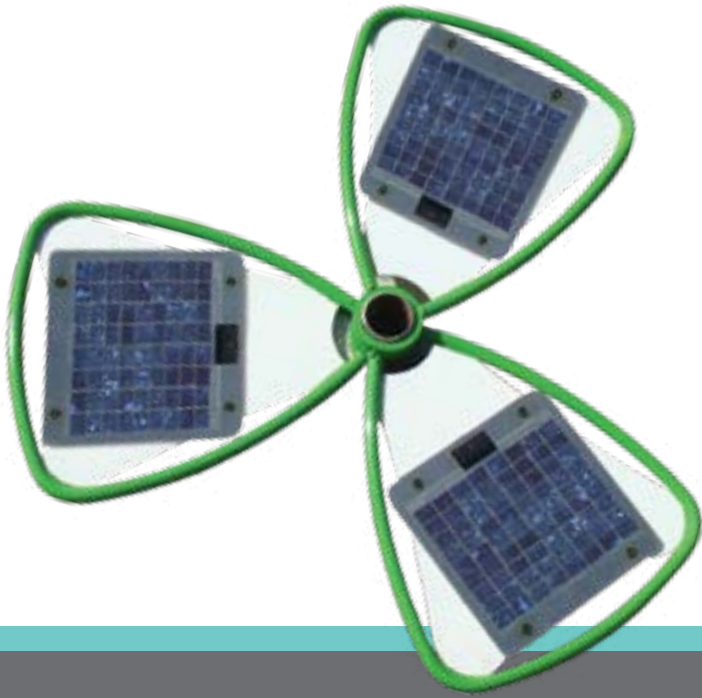
onment



Look Around You, Know Where You Live

The play equipment offers explanations on Earth's geography, topography and demography. Phenomena such as tides, winds, seasons and time zones are explained. Light and darkness, movement of the sun, earth and moon and planets of our galaxy can be understood with hand-on interactive play.

The line of products includes dozens of environmental elements, physical phenomena and explanatory items on our Universe. The playgrounds also reinforce awareness for recycling and preserving our planet.



Get to know our Products



UP IN THE AIR

Cockpit | Flying High | Moon Walk | Twister

CONVENTIONAL, OR IS IT?

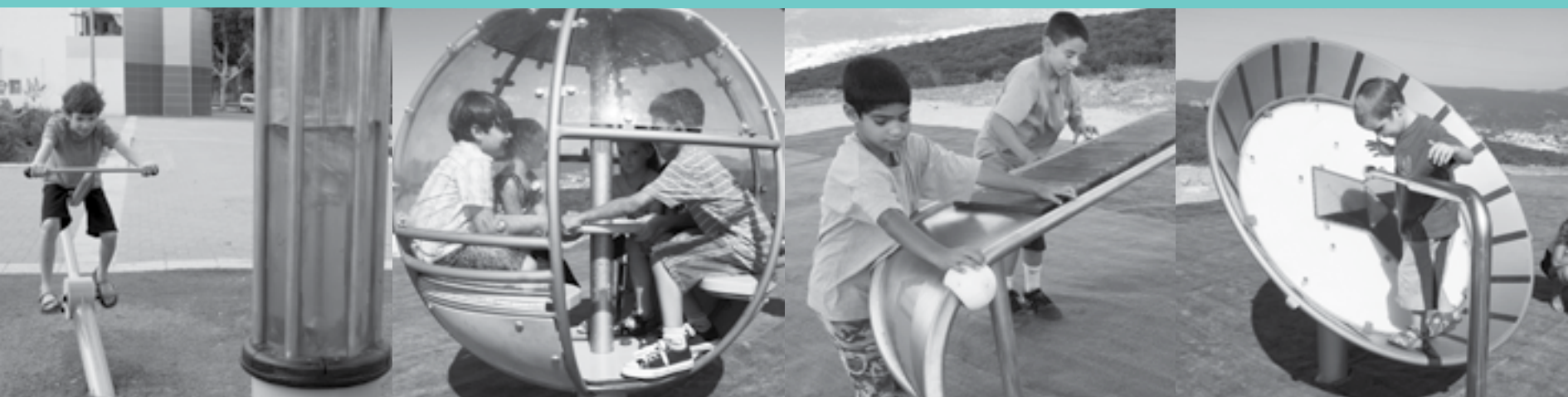
Spinning Universe | Seesaw

BALANCE

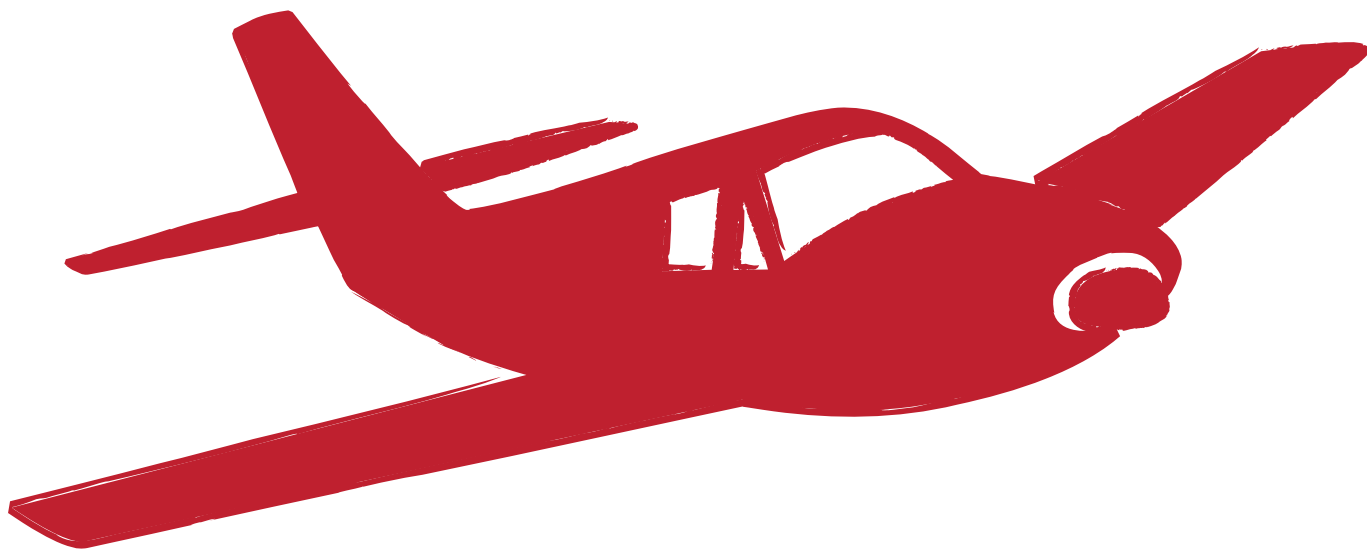
Simon Says | Pythagoras Treadmill

SIT BACK AND RELAX

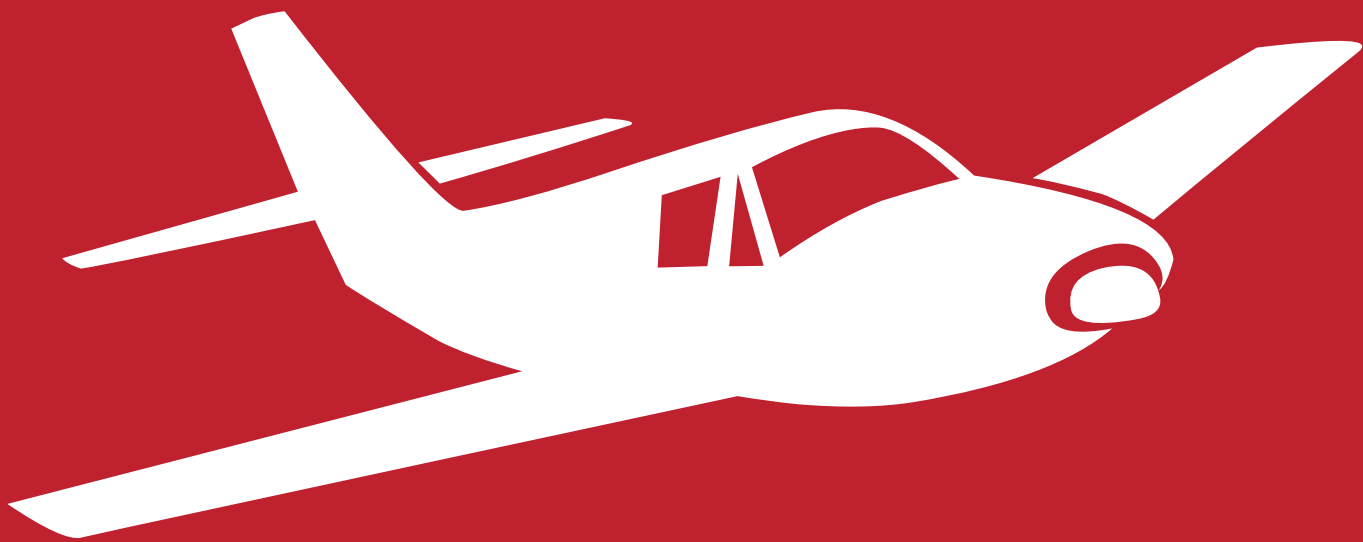
Mobius Bench | What Goes Around Comes Around







UP IN THE AIR



UP IN THE AIR

Cockpit

Flying High

Moon Walk

Twister

Cockpit





Catalog number: 100-HLCPTR

Buckle up and get ready to take off in a chopper like apparatus



A structure that simulates a helicopter's flight while sitting in a cockpit-like carrier. The child or adult will first elevate the apparatus by operating a handheld pump. Once airborne will pedal with their feet to initiate propeller motion and control the speed of flight. The energy generated by the manual work will be converted to light up the entire structure.

Specification

 Age	4 +
 Accomodates	1
 Area	49.0 Sq m 527.2 Sq ft
 Safety area (diameter)	10 m 32.8 ft

AVI-101a

Patent pending

 Overall Weight	580 Kg 1,276 lbs
 Overall Height	4.2 m 13.78 ft

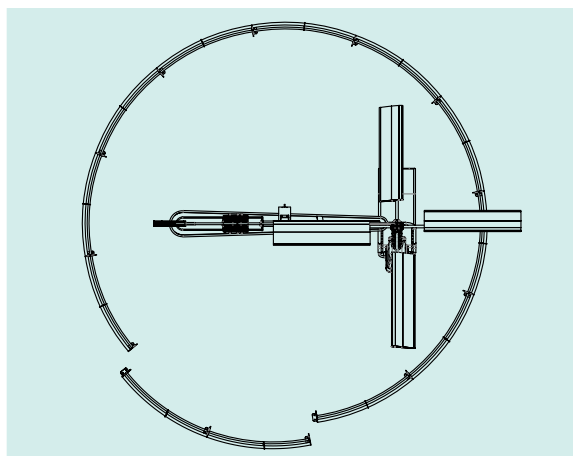
*Including concrete foundation **Not including concrete foundation

Laws of Physics

Lift force • Torque • Centre of gravity
• Aerodynamic • Inertia

Alternative Energy

Manual operation of a hydraulic system
Electricity → Mechanic energy
Lift Force → Mechanic energy







Flying High

Catalog number: 150-FH







Manoeuvre solar plates to propel planes around

An interactive game, fun for adults and children alike, that requires coordination, with players competing against or cooperating with other players. Flying High requires players mount a bike and reflect sun's rays from mirrors onto undercarriage of planes producing energy to propel planes around, circling faster and higher. Centrifugal forces, light reflection, torque forces and solar energy as a power source are all demonstrated.



Specification

 Age	4 +
 Accomodates	1 - 3
 Area	45.0 Sq m 484.2 Sq ft
 Safety area (diameter)	8.5 m 27.8 ft

AVI-102a

Patent pending

 Overall Weight	120 Kg 264 lbs
 Overall Height	4.9 m 16.07 ft

*Including concrete foundation **Not including concrete foundation

Laws of Physics

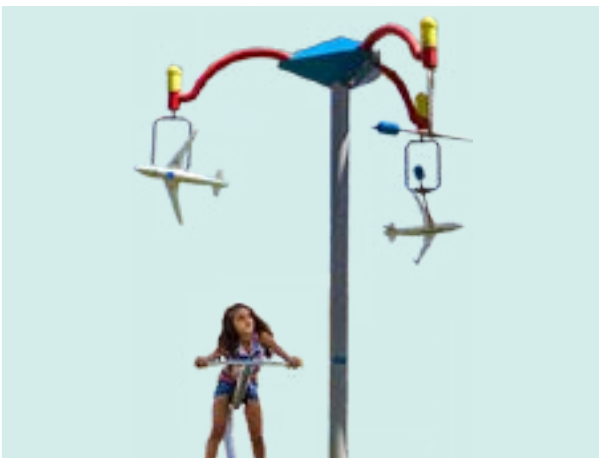
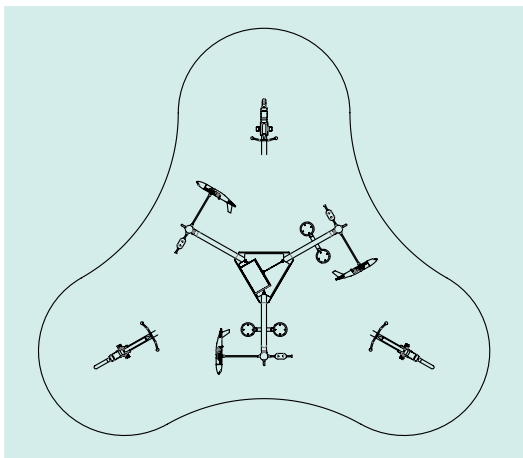
Optics ● Gravity
● Centrifugal force ● Torque

Our Planet and Universe

Speed of light

Alternative Energy

Solar energy ● Pedaling → Electricity



Moon Walk

Catalog number: 200-MW





Exhilarating sense of reduced gravity, while spinning in mid-air



A sitting harness hanging down from a centre pole. The child sits within the harness and jumps against a circular board to start spinning around the pole. The jumping motion simulates the reduced sense of gravity on the surface of the moon and illustrates various physical elements such as Newton’s third law, gravity and more.



Specification

 Age	4+
 Accomodates	1
 Area	28.3 Sq m 304.2 Sq ft
 Safety area (diameter)	6 m 19.6 ft

AVI-103a

 Overall Weight	100 Kg 220 lbs
 Overall Height	3.7 m 12.14 ft

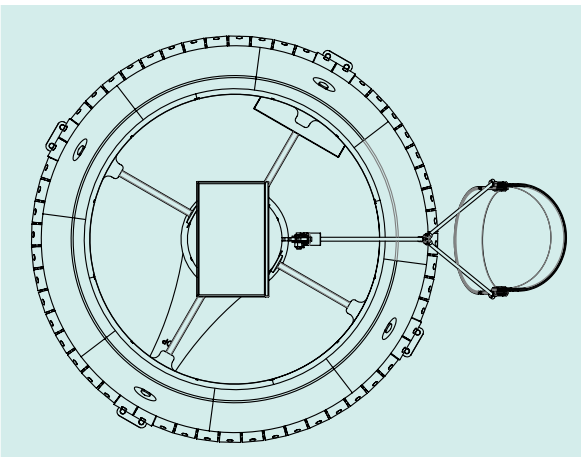
*Including concrete foundation **Not including concrete foundation

Laws of Physics

Kinetic energy • Potential energy • Newton’s third law (action = reaction) • Gravity • Angular momentum • Gyro effect

Our Planet and Universe

Hop like an astronaut on the moon







Twister

Catalog number: 250-TWISTER




Create your own private twister, while pedalling your bike

A cycling apparatus attached to a 6 feet tall, water filled cylinder. The cycling motion stirs the water within the cylinder to create a whirlpool effect. A child or adult may use the equipment by riding on one of the preset mono-cycles.



Specification

 Age	4 +
 Accomodates	1 - 3
 Area	45.0 Sq m 484.2 Sq ft
 Safety area (diameter)	8.5 m 27.8 ft

AVI-104a	Patent pending
 Overall Weight	70 Kg 154 lbs
 Overall Height	1.0 m 3.28 ft

*Including concrete foundation **Not including concrete foundation

Laws of Physics

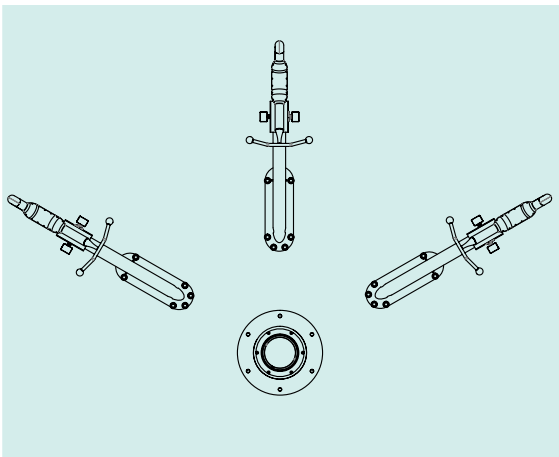
- Coriolis effect
- Centrifugal force
- Inertia
- Liquid friction
- Viscosity
- Gravity

Our Planet and Universe

- Whirlpool
- Tropical cyclone

Alternative Energy

- Kinetic energy







CONVENTIONAL, OR IS IT?



CONVENTIONAL, OR IS IT?

Spinning Universe

Seesaw

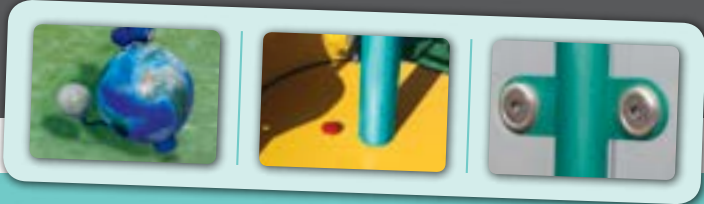
Spinning Universe

Catalog number: 300-SPUN



Spin on the carousel to learn about the cycle of our solar system



Our Solar System. Children sit inside a sphere shaped roundabout representing the sun. The earth and moon attached on an upper axis move relative to the sun as the carousel turns around. Display boards show the relative sizes and position of the planets and their orbit around the sun. Explanations on our solar system include information on length of days, months and years as a result of orbits.



Specification

 Age	2+
 Accomodates	6
 Area	14.4 Sq m 154.8 Sq ft
 Safety area (diameter)	7 m 22.9 ft

STD-104a	Patent pending
 Overall Weight	100 Kg 220 lbs
 Overall Height	2.2 m 7.06 ft

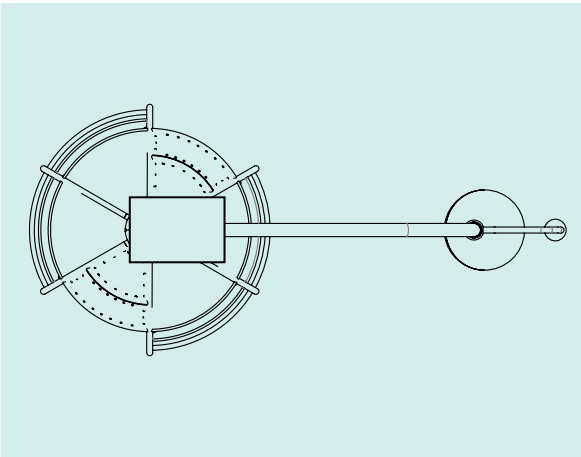
*Including concrete foundation **Not including concrete foundation

Our Planet and Universe

Solar system ● Moon eclipse ● Day/night
● Sun eclipse ● Length of day on earth ●
The sun and the moon ● Seasons

Alternative Energy

Kinetic Energy







Seesaw





Catalog number: 350-SEESAW





Hop up and down on a set of tubes to visualise the connected vessels effect

An enlarged seesaw designed as an environmental sculpture. One or two players may hop on each side of the structure. A set of tubes filled with liquid are attached to the pendulum and during play the liquid is shifted around the tubes while constantly retaining a level parallel with the ground, illustrating the connected vessels law. In addition the seats constantly remain levelled with the ground regardless of the pendulum angle. A great deal of energy is converted to electricity, lighting up the structure.

Specification

 Age	4 +
 Accomodates	2 - 4
 Area	32.0 Sq m 344.3 Sq ft
 Safety area (diameter)	7 m 22.9 ft

STD-101a	Patent pending
 Overall Weight	200 Kg 440 lbs
 Overall Height	3 m 9.84 ft

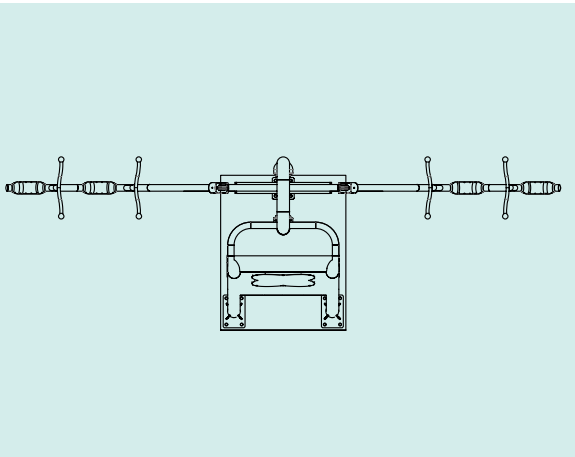
*Including concrete foundation **Not including concrete foundation

Laws of Physics

Connected vessels
Parallelogram

Alternative Energy

Kinetic Energy



Our Planet and Universe

Gravity creates the connected vessels law.

Surface of the sea is identical across Earth

Gravity is equal throughout Earth
The moon's gravity contradicts earth's gravity, causing high and low tides





BALANCE



BALANCE

Simon Says

Pythagoras Treadmill

Simon Says





Catalog number: 450-SS

Challenge yourself playing “Simon Says” on a shaky platform, loosely balanced by unequally weighted objects



A mushroom shaped platform stabilised solely at its centre and therefore tilts to the sides when stood upon. The edges of the platform are connected with ropes to several pegs and pulled by the weight of cubic boxes. All boxes are evenly shaped however weighing differently, illustrating the concept of specific weight. A set of 4 large electric buttons mounted on top of the platform, is utilised to playing the legendary children’s game of Simon Says. The children hop on the platform and play the game with their feet, sharpening the memory skills while overcoming the non balanced platform. All electric components are operated by transforming the movement of the platform to energy.

Specification

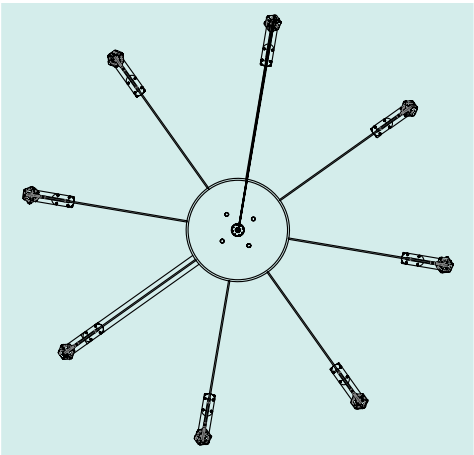
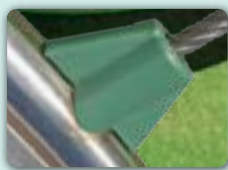
 Age	6+
 Accomodates	3
 Area	19.6 Sq m 211.3 Sq ft
 Safety area (diameter)	8.7 m 28.5 ft

BLC-101a	Patent pending
 Overall Weight	100 Kg 220 lbs
 Overall Height	1 m 3.28 ft

*Including concrete foundation **Not including concrete foundation

Laws of Physics

Specific weight ● Centre of mass ● Balance ● Tension







Pythagoras Treadmill

Catalog number: 500-PTGR

Walk on a tilted, circular treadmill-like apparatus to get a grasp on Pythagoras theorem

A circular treadmill apparatus, lying tilted against the ground. Walking or running over it rotates the platform constituting a challenging non balanced environment. The centre of the platform contains 3 squares adjusted in a way that forms a right-angled triangle. The platform is filled with liquid that exactly fills the larger of the three squares. While playing, the liquid, due to forces of gravity, migrates around. It is clearly observed that the amount of liquid required to fill the large square is identical to the amount required to fill both the other squares together, therefore illustrating Pythagoras’ theorem. The rotation motion is converted into energy that is then used to illuminate the structure.



Specification

iii Age	2+
ii Accomodates	1
● Area	7.3 Sq m 78.4 Sq ft
○ Safety area (diameter)	3.8 m 12.4 ft

BLC-102a	Patent pending
⚖ Overall Weight	100 Kg 220 lbs
↑ Overall Height	1.8 m 5.90 ft

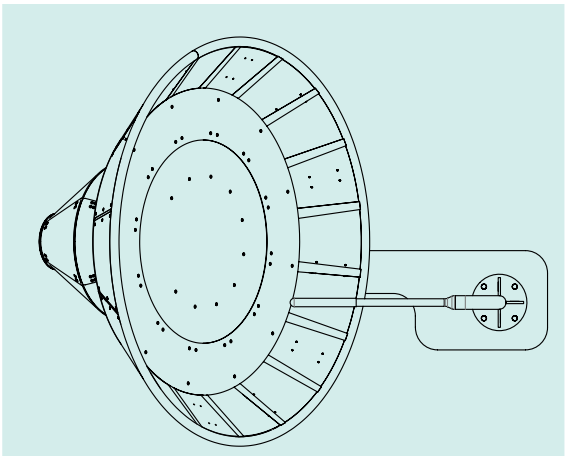
*Including concrete foundation **Not including concrete foundation

Laws of Physics

Pythagoras theorem ● Connected vessels
Potential energy (flow to the lowest point)

Alternative Energy

Kinetic energy







SIT BACK AND RELAX



SIT BACK AND RELAX

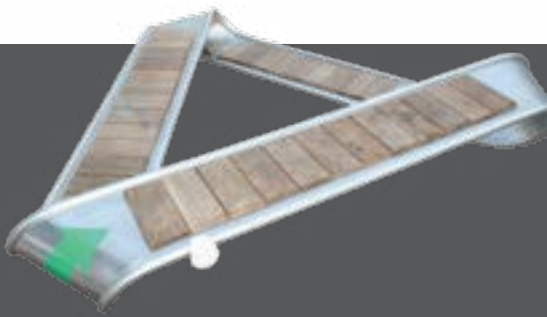
Mobius Bench

What goes around comes around



Mobius Bench

Catalog number: 550-MB



Three level bench shaped as the recycling logo

A triangular-like shaped bench with each edge designed at a different height, providing tailored comfort for children of different ages and adults alike. To be more precise, the bench is actually shaped as a Mobius, a surface with only one side and only one boundary component. The shape of the international recycling logo is shaped like a Mobius. To illustrate this physical wonder, balls are attached to the side of the bench. The child will slide the balls along the bench and surprisingly observe that a ball starting on the outer side of the bench will complete the circle on the inner side, concluding that the bench is indeed one-sided.

Specification

 Age	1+
 Accomodates	1 - 8
 Area	20.0 Sq m 215.2 Sq ft
 Safety area (diameter)	5 m 16.4 ft

RLX-101a

 Overall Weight	75 Kg 165 lbs
 Overall Height	0.59 m 1.94 ft

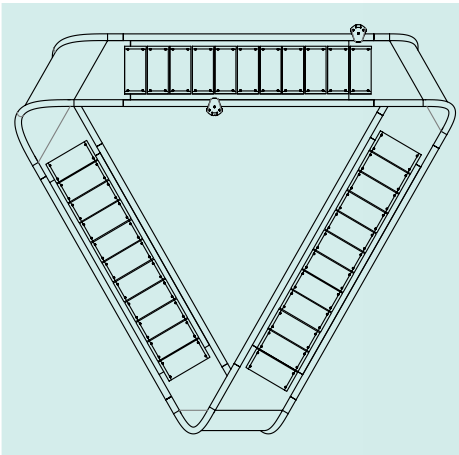
*Including concrete foundation **Not including concrete foundation

Laws of Physics

Thermodynamics ● Mobius ring

Alternative Energy

The recycling logo



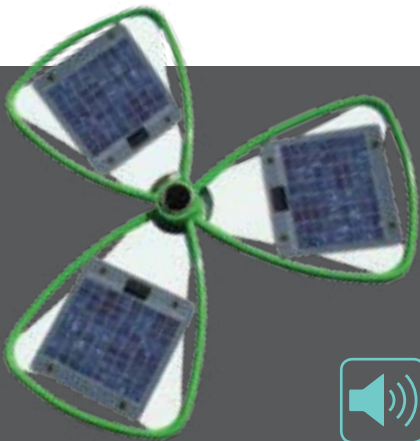


What Goes Around Comes Around





Catalog number: 100-RC

Interactive recycling centre for waste segregation accompanied by stimulating visual effects

A recycling centre, to segregate litter into several compartments such as cans, glass, paper, nylon and organic trash. The recycling centre senses children approaching and interacts with them using an audio device. Vacuum pumps shrink plastic bottles by removing air, cans are squashed and all carried out by the children who feel involved and receive positive feedback from the audio devices.



Specification

 Age	4 +
 Accomodates	1 - 6
 Area	0.2 Sq m 2.3 Sq ft
 Safety area (diameter)	0 m 0 ft

RLX-103a

 Overall Weight	50 Kg 110 lbs
 Overall Height	2.8 m 9.16 ft

*Including concrete foundation **Not including concrete foundation

Laws of Physics

Vacuum – shrinks the bottles

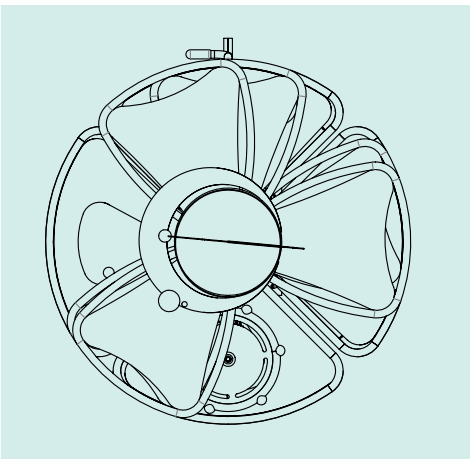
Our Planet and Universe

Time it takes material to dispose

Alternative Energy

4 recycling bins

Crushing cans to reduce space



Talking Sign

Catalog number: SIGN-600

A special Sign Post that describes the nature of the playground and welcomes the visitors to the wonderful world of game facilities, which are based on scientific laws and sustainability laws for the preservation of the environment. The sign detects approaching people and gives the visitor an introduction to the science playground. The system is based on solar sower.

Sign Posts

One or more sign posts can be added to each product. Sign posts provide short operating guideline, relevant laws of physics and other trivia and enriching content. Sign posts are equipped with an audio device to narrate the text or possibly provide additional information. Sign posts can be connected to a power source or be embedded with a self supplying energy system, based on solar plates.



Spinning Universe

Laws of Physics

Do you feel like something is trying to throw you out of the carousel while spinning. This is the Centrifugal force. The faster you spin, the harder it is to stay put. Every moving object (you included) strives to keep moving straight. Since the carousel constantly tries the direction of our movement, it appears as if we being thrown out.

Centripetal Force: Can you feel the force in your arms when holding the steering wheel?
This is the force that keeps you within the carousel.

Alternative Energy

Kinetic Energy: Observe how the energy you exert to turn the carousel around is being preserved and converted into electric energy to light up the sun. The faster you spin the more energy you generate.

Our World and Universe

Day & Night: Look at Earth, half of it is facing the sun, absorbing light and is during the daytime. The other half doesn't receive light and remains in the dark - this half is during the night. Earth completes a full spin every 24 hours and lighted areas eventually become dark and vice versa.











Cockpit

Page 28 | 100-HLCPTR



Flying High

Page 31 | 150-FH



Moon Walk

Page 32 | 200-MW



Twister

Page 35 | 250-TWISTER



Spinning Universe

Page 40 | 300-SPUN



Seesaw

Page 43 | 350-SEESAW



Simon Says

Page 48 | 450-SS



Pythagoras Treadmill

Page 51 | 500-PTGR



Mobius Bench

Page 57 | 550-MB



What Goes Around

Page 59 | 100-RC



Sign Posts

Page 60 | 600-SIGN



Warranty



Warranty

Our products have been designed and are manufactured under the highest standards and we do our best to ensure that you receive a top quality product. However, we understand that from time to time some defects may occur and we therefore warranty you against such cases.

Warranty covers only components, which have been properly installed and maintained. Normal wear and tear is not covered as well as damage caused due to misuse, poor maintenance and vandalism. Warranty applies to the components parts only and not to the entire product.

Design, delivery and installation

Items will be delivered within 60 days of order. Freight charges are not included in the prices. Products will be delivered unassembled and packaged. Assembly and installation will be provided by our local representative – contact us for help locating your nearest representative. Our park designers and engineers will be happy to provide assistance with the park design and layout to fit your individual requirements. Don't hesitate to ask.

Safety

Safety is key to us and we do our best efforts to provide you with the highest quality safe equipment. All manufacturing complies with the European Standard: DIN / EN 1176.





aba-scienceplay.com

