PRODUCT CATALOGUE

ABA SCIENCE PLAY
Playgrounds of Tomorrow

aba-scienceplay.com

ABA SCIENCE PLAY

Playgrounds of Tomorrow

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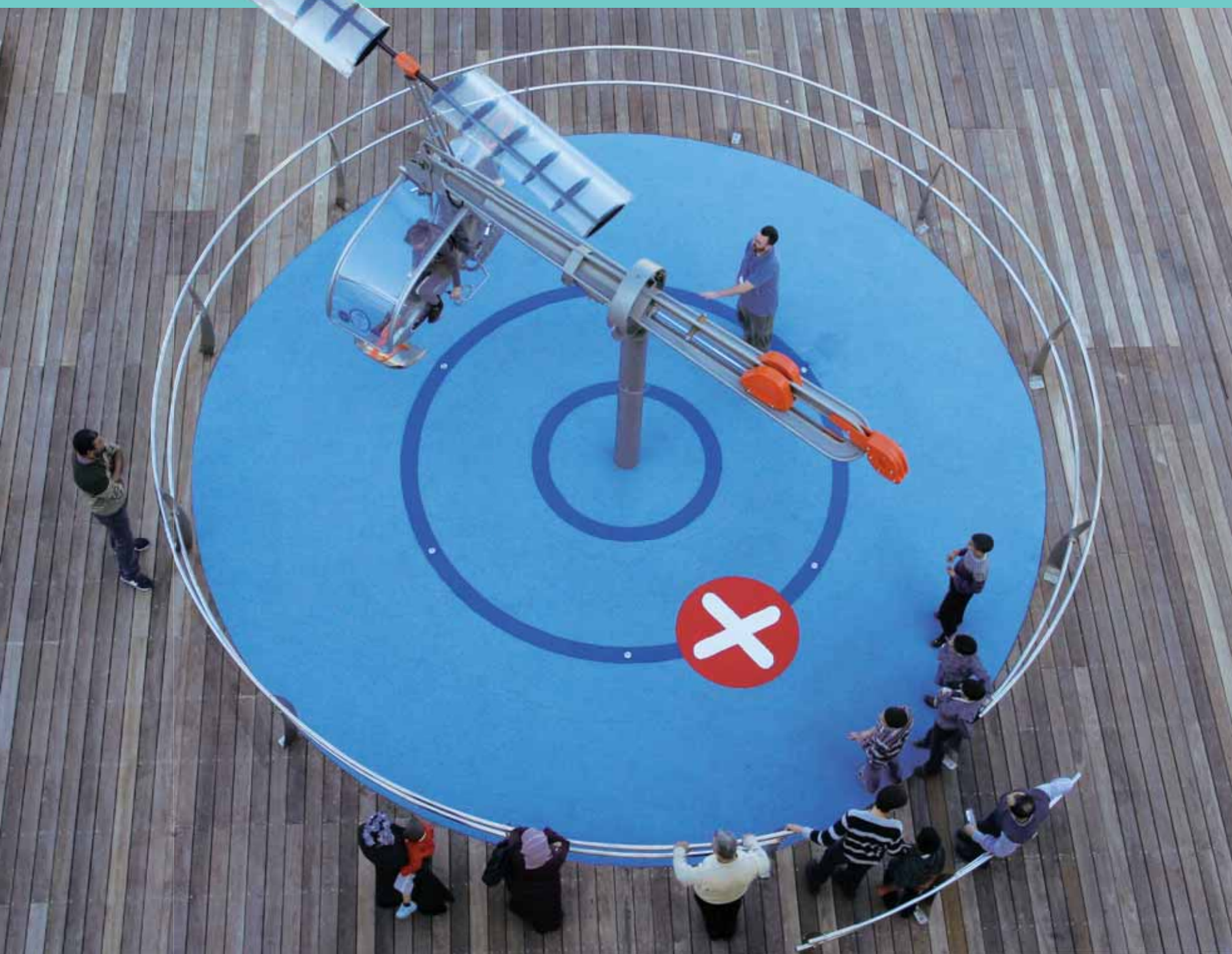
Playgrounds

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

Fun & Play	Scientific Knowledge
Our Environment & the World We Live In	

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

Joint Parent & Child Experience

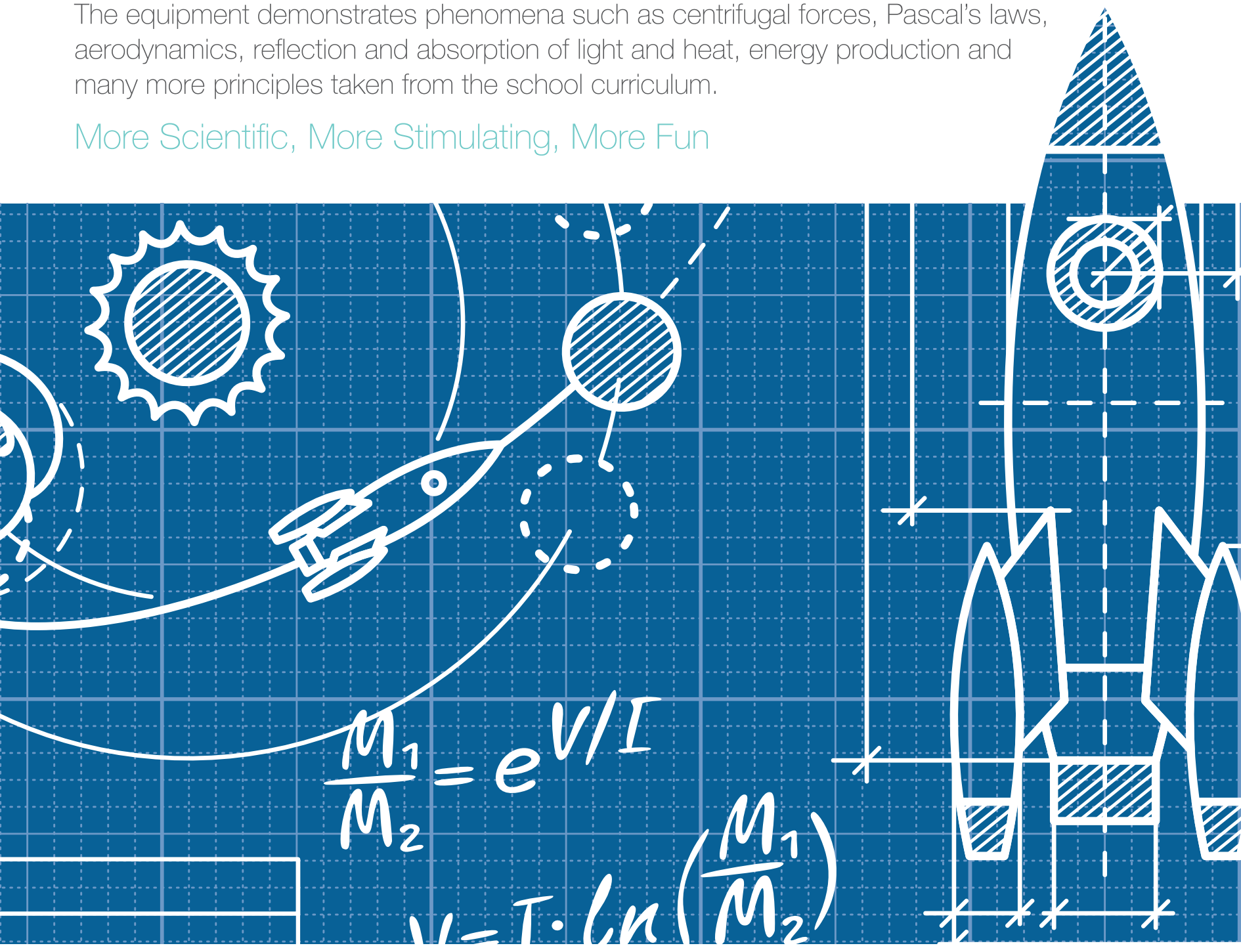
The parks are designed to incorporate many elements to attract parents to join their children and participate in joint activities that will strengthen the parent & child bond.

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 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?

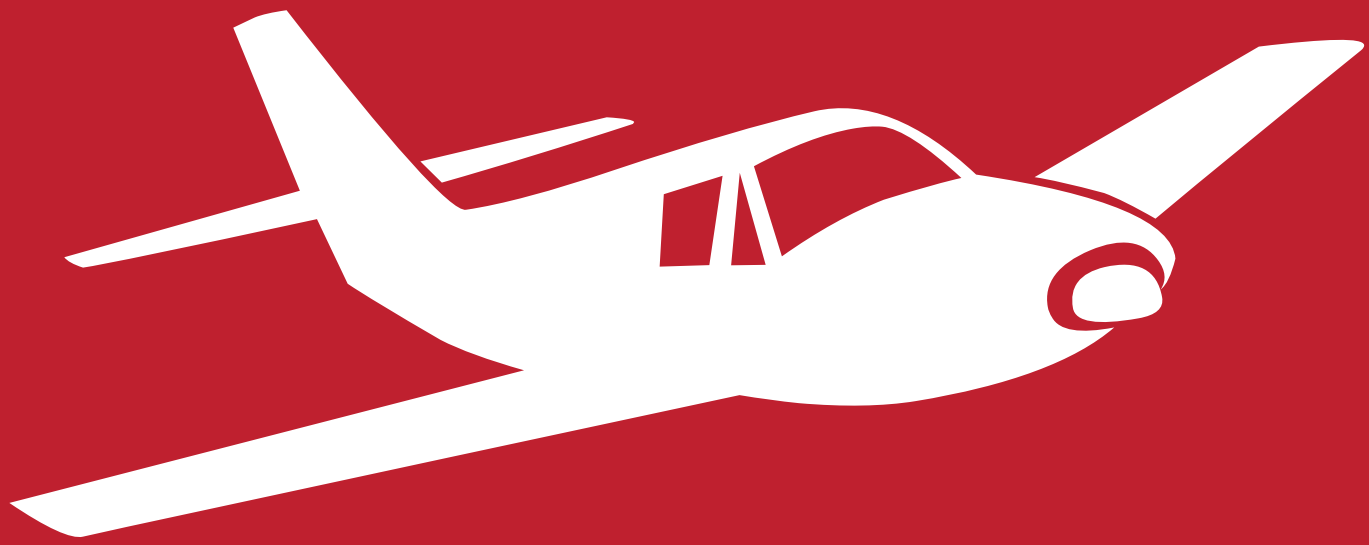
Spinning Universe | Seesaw

BALANCE

Simon Says | Pythagoras Treadmill

SIT BACK AND RELAX

Mobius Bench | Sign Posts
What Goes Around Comes Around



UP IN THE AIR	
Cockpit	Flying High
Moon Walk	Twister

Cockpit

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	3+
Accomodates	1
Area	49.0 Sq m | 527.2 Sq ft
Overall Height	4.2 m | 13.78 ft

100-HLCPTR — Patent pending

Overall Weight	1,698 Kg | 3,735.6 lbs
In Ground Depth*	1.3 m | 4.26 ft
Installation Time**	8 Hours

*Including concrete foundation
**Not including concrete foundation

Cranee is required

Laws of Physics

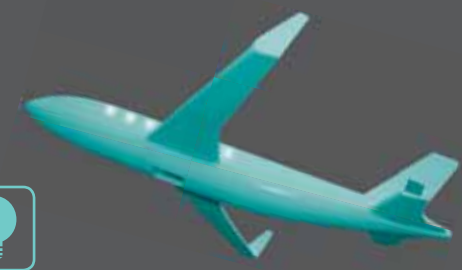
Lift force • Torque • Centre of gravity
Aerodynamics • Inertia

Alternative Energy

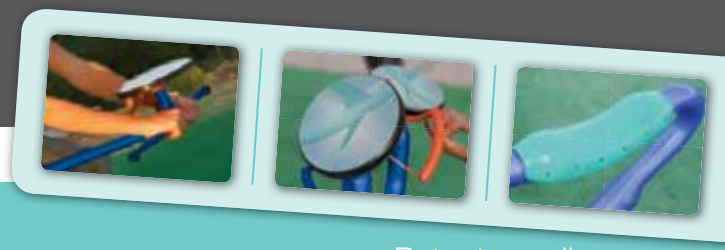
Manual operation of a hydraulic system
Electricity → Mechanic energy
Lift Force → Mechanic energy

Flying High

Manoeuver 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 to mount a bike and pedal to produce energy that propels the planes around. Reflecting sun rays from the mirrors onto the undercarriage of the planes exploits the solar energy to light the planes. Centrifugal Forces, Light reflection, Aerodynamic Lift, Torque Forces and Solar Energy as a power source are all demonstrated.



Specification

150-FH — Patent pending

Age	3+
Accomodates	1- 3
Area	45.0 Sq m | 484.2 Sq ft
Overall Height	5.5 m | 18.04 ft
Overall Weight	310 Kg | 682 lbs
In Ground Depth*	1 m | 3.28 ft
Installation Time**	8 Hours

*Including concrete foundation
**Not including concrete foundation

Cranee is required

Laws of Physics

Optics • Gravity • Centrifugal force • Torque

Our Planet and Universe

Speed of light

Alternative Energy

Solar energy • Pedaling → Electricity

Moon Walk

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	3+
Accomodates	1
Area	28.3 Sq m | 304.2 Sq ft
Overall Height	3.7 m | 12.14 ft

200-MW

Overall Weight	425 Kg | 935 lbs
In Ground Depth*	1 m | 3.28 ft
Installation Time**	2 Hours

*Including concrete foundation
**Not including concrete foundation

Cranee is required

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

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 or even by attaching their own personal bicycles.

Specification

Age	3+
Accomodates	1- 3
Area	45.0 Sq m | 484.2 Sq ft
Overall Height	2.5 m | 8.20 ft

250-TWISTER	Patent pending
Overall Weight	180 Kg | 396 lbs
In Ground Depth*	0.7 m | 2.30 ft
Installation Time**	4 Hours

*Including concrete foundation **Not including concrete foundation

Laws of Physics

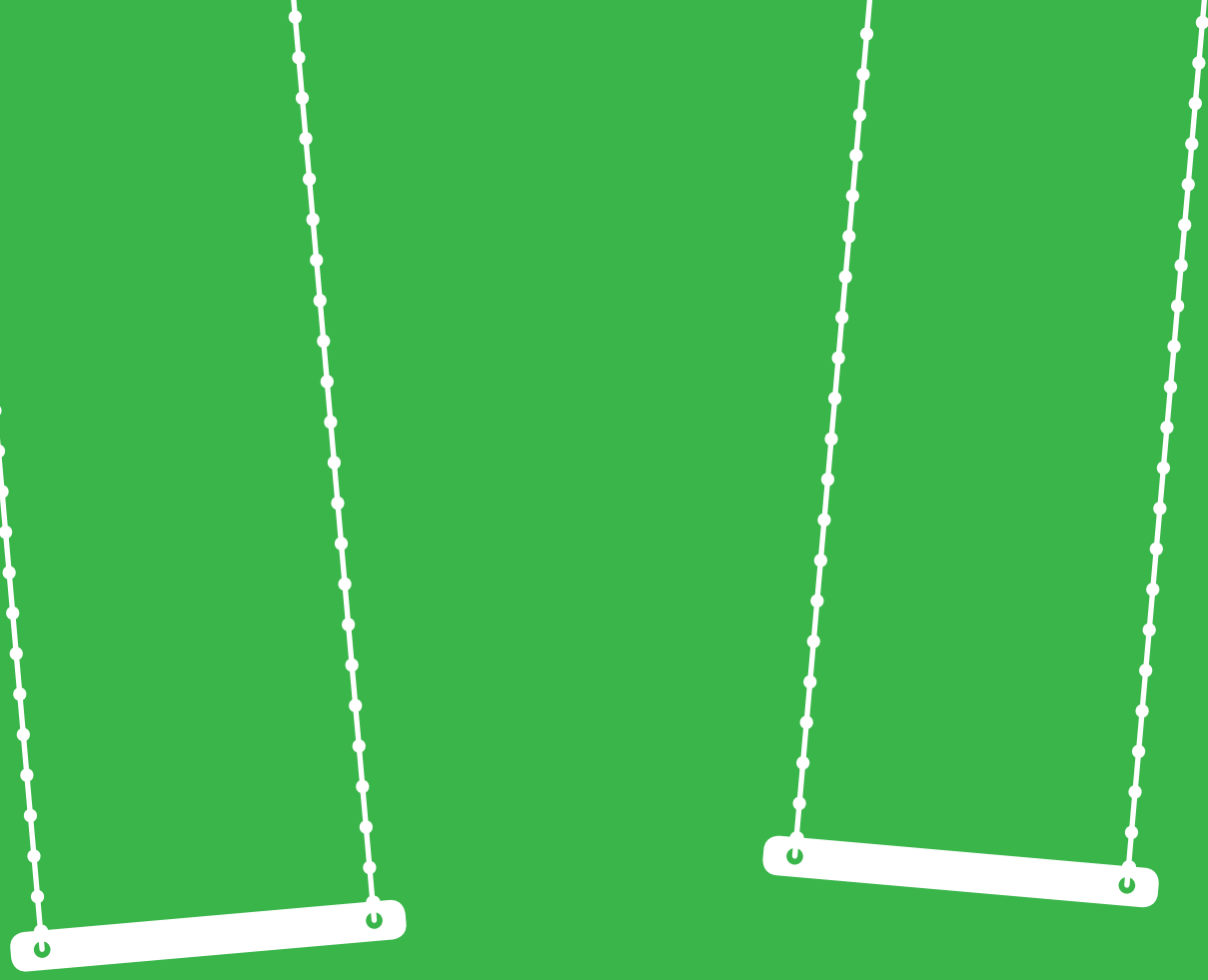
Coriolis effect • Centrifugal force • Inertia
Liquid friction • Viscosity • Gravity

Our Planet and Universe

Whirlpool • Tropical cyclone

Alternative Energy

Kinetic energy



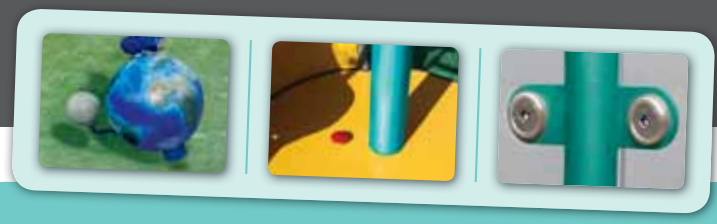
CONVENTIONAL, OR IS IT?

Spinning Universe	Seesaw

Spinning Universe

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	Any age
Accomodates	6
Area	14.4 Sq m |154.8 Sq ft
Overall Height	2.2 m | 7.06 ft

300-SPUN — Patent pending

Overall Weight	580 Kg | 1,276 lbs
In Ground Depth*	1 m | 3.28 ft
Installation Time**	2 Hours

*Including concrete foundation
**Not including concrete foundation

Cranee is required

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

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.

Specification

Age	3+
Accomodates	2 - 4
Area	32.0 Sq m | 344.3 Sq ft
Overall Height	3.0 m | 9.84 ft

350-SEESAW — Patent pending

Overall Weight	350 Kg | 770 lbs
In Ground Depth*	1 m | 3.28 ft
Installation Time**	4 Hours

*Including concrete foundation
**Not including concrete foundation

Cranee is required

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

Simon Says | Pythagoras Treadmill

Simon Says

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 solar light to energy.

Specification

450-SS

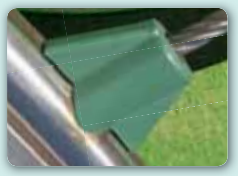
Patent pending

Age	6+
Accomodates	3
Area	19.6 Sq m | 211.3 Sq ft
Overall Height	1.0 m | 3.28 ft
Overall Weight	100 Kg | 220 lbs
In Ground Depth*	0.8 m | 2.62 ft
Installation Time**	2 Hours

*Including concrete foundation **Not including concrete foundation

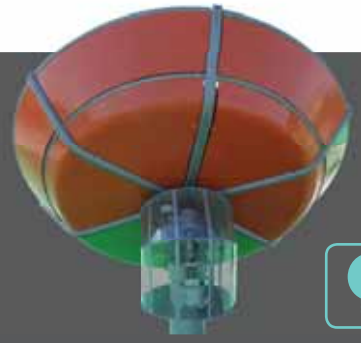
Laws of Physics

Specific weight • Centre of mass • Balance • Tension



משפט
פיתגורס
$c^2=a^2+b^2$

Pythagoras Treadmill



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

Age	3+
Accomodates	1
Area	7.3 Sq m | 78.4 Sq ft
Overall Height	1.8 m | 5.90 ft

500-PTGR

Patent pending

Overall Weight	383 Kg | 842.6 lbs
In Ground Depth*	0.8 m | 2.62 ft
Installation Time**	2 Hours

*Including concrete foundation
**Not including concrete foundation

Cranee is required

Laws of Physics

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

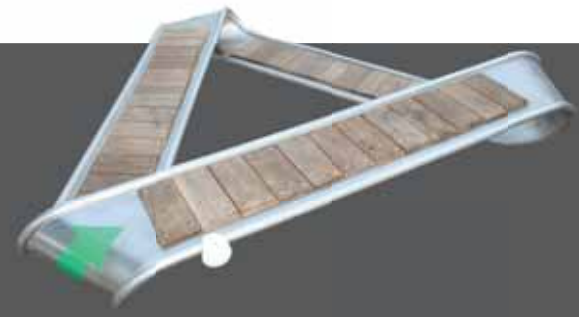
Alternative Energy

Kinetic energy

SIT BACK AND RELAX

Mobius Bench	Sign Posts

What goes around comes around



Mobius Bench

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

550-MB

Age	Any age
Accomodates	1 - 8
Area	20.0 Sq m | 215.2 Sq ft
Overall Height	0.59 m | 1.94 ft
Overall Weight	131 Kg | 288.2 lbs
In Ground Depth*	0.3 m | 0.98 ft
Installation Time**	1 Hour

*Including concrete foundation **Not including concrete foundation

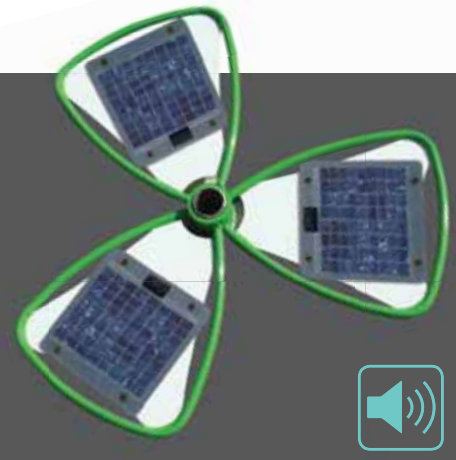
Laws of Physics

Thermodynamics • Mobius ring

Alternative Energy

The recycling logo

What Goes Around Comes Around



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	3+
Accomodates	1 - 6
Area	0.2 Sq m | 2.3 Sq ft
Overall Height	2.8 m | 9.16 ft

100-RC

Overall Weight	100 Kg | 220 lbs
In Ground Depth*	0.7 m | 2.30 ft
Installation Time**	1 Hour

*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

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.

Specification

600-SIGN

Age	Any age
Area	0.45 Sq m | 4.8 Sq ft
Overall Height	2.5 m | 8.20 ft

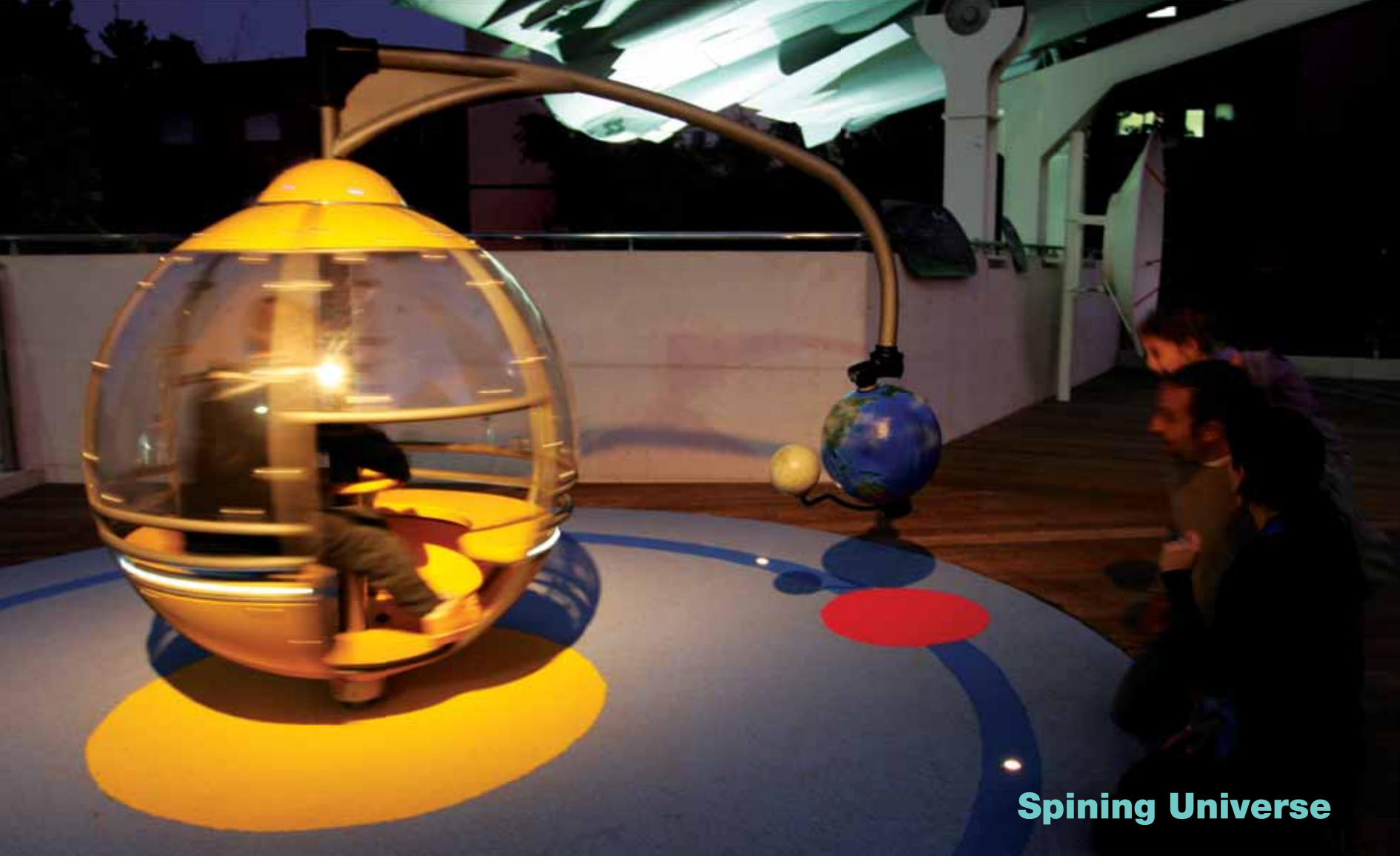
Overall Weight	70 Kg | 154 lbs
In Ground Depth*	0.6 m | 1.97 ft
Installation Time**	2 Hours

*Including concrete foundation **Not including concrete foundation

Wake up, it's night time

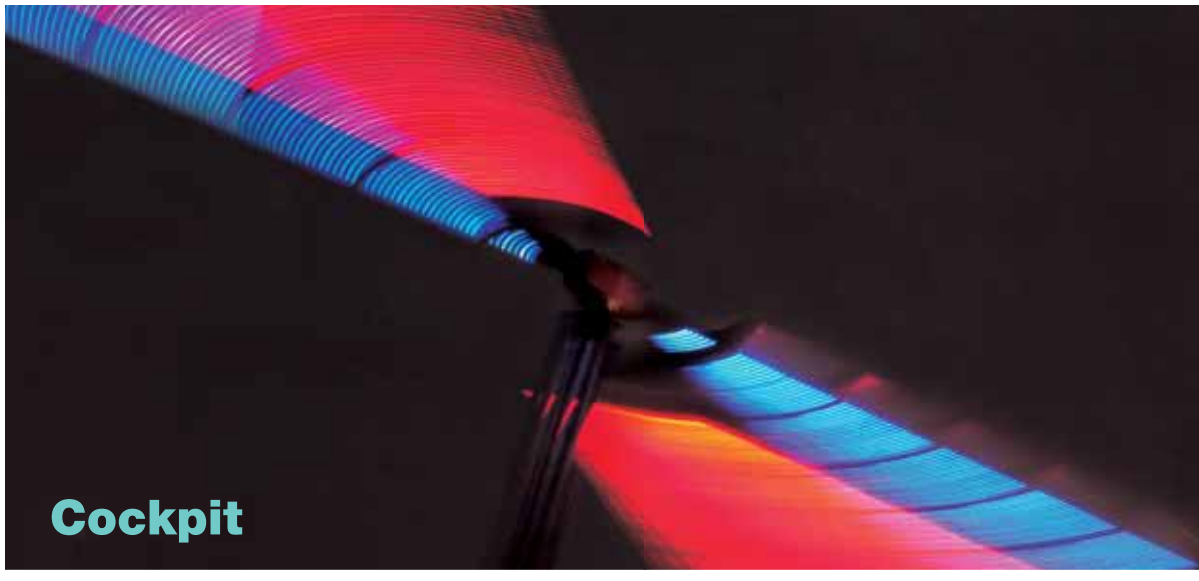
If you think that our playgrounds go to sleep at night - think again. Our parks wake up after dark to introduce a festival of lights. Multi-colour static and flashing lights are turned on during play on the individual products. The energy to power up the lights is either generated by the children's activity, solar plates that stored energy during the daytime or by standard electric power. Join us at night time to witness an experience of a life-time.

Pythagoras Treadmill



Spining Universe

Twister



Cockpit

Cockpit

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Flying High

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Moon Walk

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Twister

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Spining Universe

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Seesaw

STD-101a | Page: 42

Simon Says

BLC-101a | Page: 48

Pythagoras Treadmill

BLC-102a | Page: 50

Mobius Bench

RLX-101a | Page: 56

What Goes Around Comes Around

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Sign Posts

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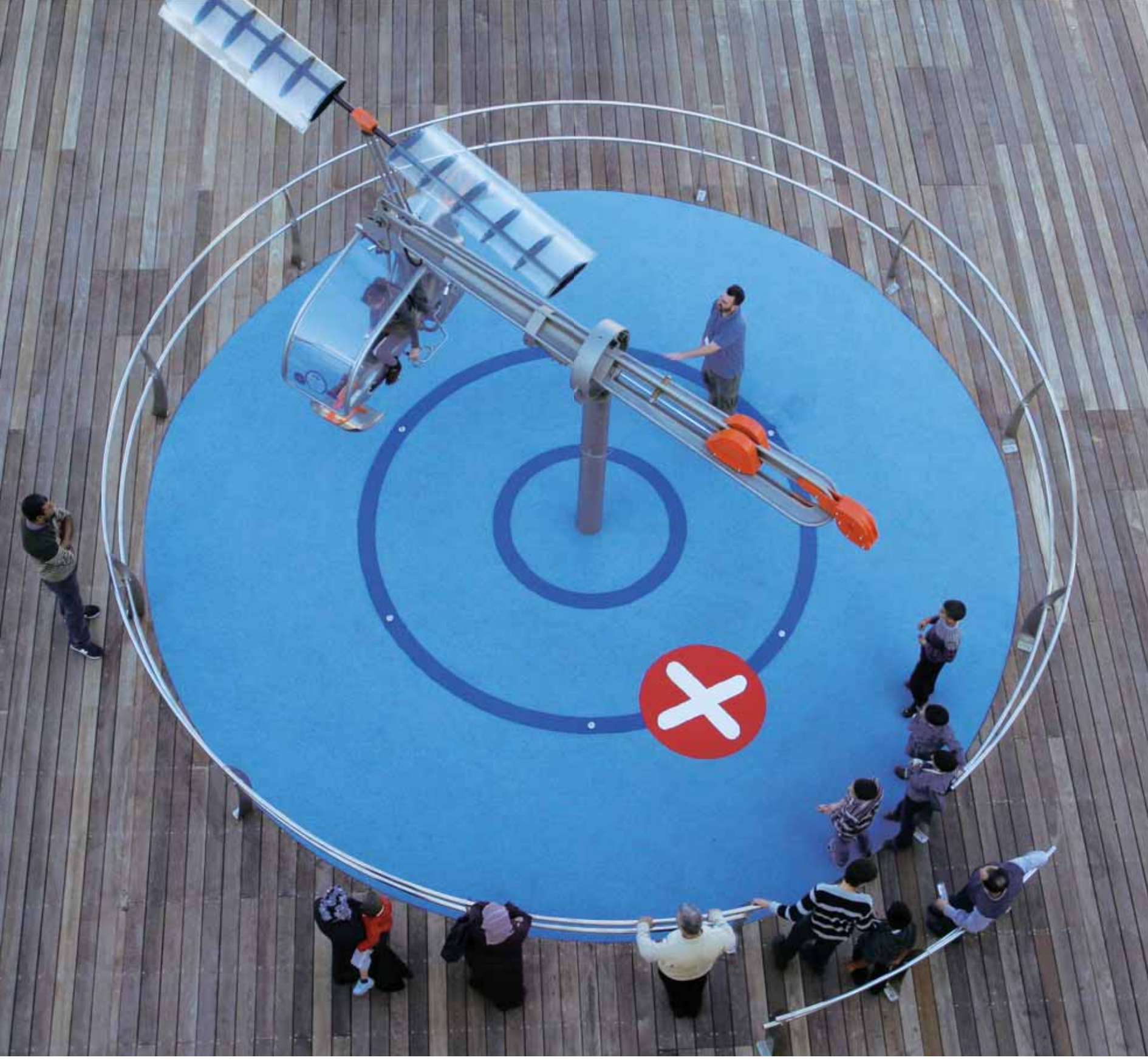
ABA SCIENCE PLAY

Playgrounds of Tomorrow



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.

Limited 10 year warranty

On all plastic components, metal and aluminium components, galvanised and non-painted steel, metal joints and soldering, against structural failure caused by material or production defects.

Limited 3 year warranty

On all nets, climbing cables, colour coating on plastic and metal components.

Limited 1 year warranty

On all other components not mentioned above

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

We are constantly enhancing our product offering and value and therefore, specifications are subject to change.

ABA-1001-EU-01

Branding & Design by: stu-art.co.il