



POLYDRON

Product Catalogue 2010 www.polydron.com

INNOVATION EDUCATION FUN



Welcome to our new 2010 presentation of Polydron products. Once again we are delighted to bring you the tried and trusted Polydron quality that is known by teachers and pupils worldwide.

2009 has been a great year for Polydron, and we have been able to consolidate our position as the world's leading supplier of geometric solids and construction tools to schools.

In 2010 we have some very exciting new products, details of which can be found in the pages of this catalogue. We have applied our experience, and utilised the skills of some of the most senior educational consultants in the UK, to create what we believe are the most innovative new products we have presented for many years. Giant, Magnetic and Polyphonics will become a hugely important and successful part of the Polydron range in the coming years. This is their debut year and we invite you to have a good look at them and their potential for your business.

To our established customers, we say thank you for your continued support. If you are new to the Polydron range, then we would like you to use this catalogue as your first introduction to our world of quality and innovation. The next step for all of our customers is to talk to us about our products. If you need samples, prices or help in deciding the right combinations for your market, then please get in touch with us, we will be delighted to meet you.

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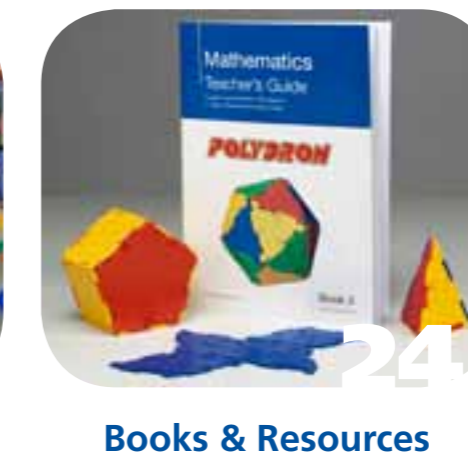
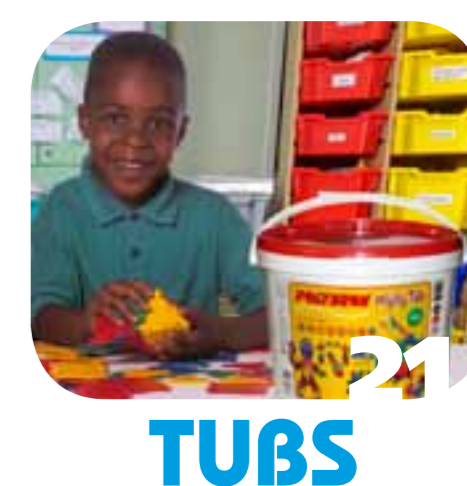


Polydron is proud to be associated with the world famous Heureka organisation in Finland. We are delighted to announce that Polydron products will continue be exhibited at the Heureka museum during 2010.

For more information, additional copies of this catalogue, order forms and price list containing our discount structure please contact:

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GIANT POLYDRON

NEW

- ▶ Perfect introduction to 2 and 3D shapes
- ▶ Ideal for indoor and outdoor use
- ▶ Heavily textured on one side for sensory integration
- ▶ Includes Braille for awareness of other methods of communication

Giant Polydron Set



70-7000

40 Pieces

Giant Polydron Class Set



70-7010

80 Pieces

Giant Polydron, the new sensory construction product encourages children to make and recognise 2 and 3 dimensional shapes. It helps children to 'develop an awareness of shape and texture' as advocated by the department of children's schools and families in their guidelines for early years education.

Giant Polydron is heavily textured on one side which helps children recognise different shapes and forms. The inner area of the triangles and squares is marked with Braille to raise children's awareness of alternative forms of communication.

With large easy to attach shapes and designed for little hands, Giant Polydron is a must for all early years and special needs environments.

We have two sets available, 70-7000 which contains 40 pieces and 70-7010 (the Class Set) which contains 80 pieces.



MAGNETIC POLYDRON

NEW

- ▶ Over 100 magnets in every set and over 230 magnets in the Class Set
- ▶ Simple colour coding demonstrates polarity
- ▶ Manufactured from tough ABS plastic and fully tested to EN71 and CPSIA regulations
- ▶ Highly addictive!

Magnetic Polydron Set



50-1000

32 Pieces

Magnetic Polydron Class Set



50-1010

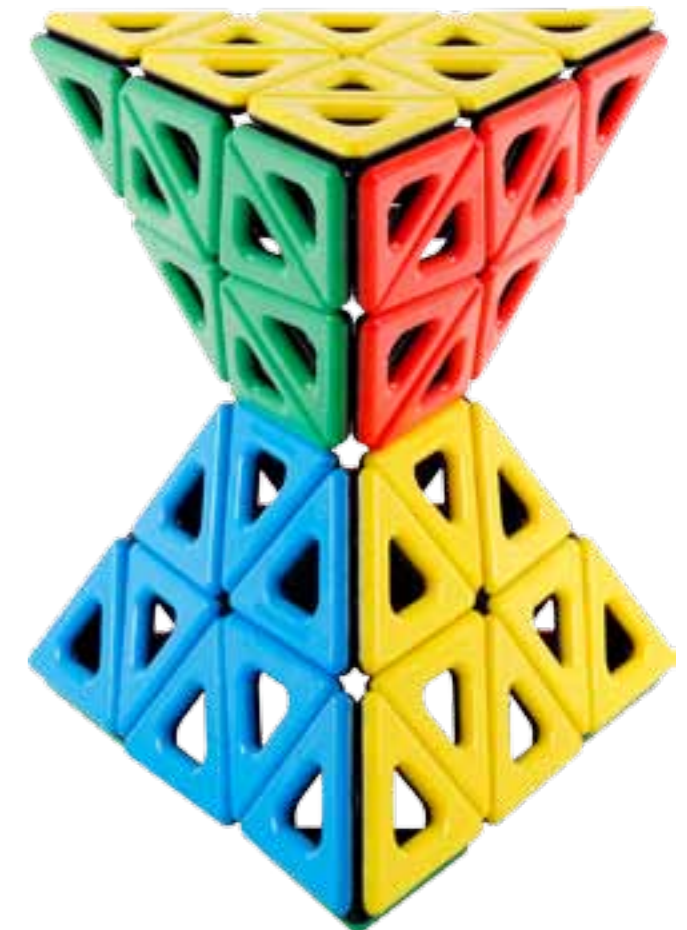
96 Pieces



Magnetic Polydron will allow children to explore the world of shape, space and magnetism all in one exercise, combining the fun of construction with the lessons of polarity. It is an excellent addition to any class with children aged from 3 to 11 years old.

Magnetic Polydron's triangles and squares are coloured in red, yellow, blue and green on one side and black on the reverse. The pieces will join together when the polarity is correct in line with the colours.

Manufactured from hard wearing ABS plastic, Magnetic Polydron can be used by generations of children. All Polydron products carry our guarantee of exceptional quality and reliability.



POLYDRON

Original and Best

Polydron is the original and still superior manipulative, recognised in many countries as the world's leading resource for teaching Maths, 2 and 3 dimensional geometry, design and technology. This is a major aid in developing spatial awareness.

The range is designed to be easily used by the young giving excellent play value, and versatile enough to be utilised for complex mathematical theories.

The patented unique joints readily snap together, giving a superior hinge. This design is critical to the forming and creating of 2 and 3 dimensional geometric shapes.

Fully supported by a range of professionally written books and activity ideas.

- Fully supported with literature
- Tough and durable
- Educational and fun

+1 To aid easy assembly all Polydron sets have at least one Frameworks piece



BEST SELLER

Polydron Class Set

Very popular! Ideal for small group use in the classroom. 184 pieces including equilateral triangles, hexagons, squares and pentagons.

20	40	100	24		
Hexagon	Square	Equilateral	Pentagon	Exploring Booklet	Gratnells Tray
10-3031					184 Pieces

Polydron Basic Set

Ideal for younger children to work with and explore equilaterals, squares and pentagons.

40	100	24	
Square	Equilateral	Pentagon	Exploring Booklet
10-3005			164 Pieces



Polydron Wheels Set

4 wheels, 4 axle mounts and 4 stub axles.

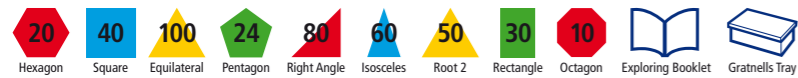
4	4	4
Wheels & Tyres	Axle Mount	Stub Axle

10-1001 **12 Pieces**



Polydron Primary Maths Set

The complete classroom set for Primary schools. Designed to be used in conjunction with the 'Primary Mathematics with Polydron' book. Over 400 pieces of 9 different mathematical shapes. This set enables the whole class to investigate 2D and 3D mathematics.



10-3050 414 Pieces

Polydron Platonic Solids Set

A great student set. Build and explore the 5 Platonic solids all at once.

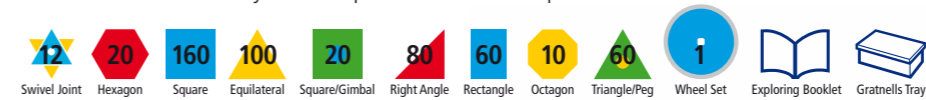


10-3000 50 Pieces



Polydron Technology Set

An extensive set of Polydron shapes with over 540 pieces.



10-3030 544 Pieces

Polydron School Geometry Set

Ideal for the active classroom. 266 pieces of 7 different mathematical shapes with 2 Polydron protractors. Enables you to build many types of nets, prisms, cuboids and pyramids and cover all the activities in the 'Mathematics with Polydron' resource book.



10-3020 266 Pieces



Polydron Bulk Sets

For ease of assembly each Bulk Set now contains at least one Frameworks piece

10-0300	100 Equilateral Triangles	10-0305	24 Swivel Joints (Triangles)	10-0500	24 Pentagons
10-0301	60 Isosceles Triangles	10-0400	40 Squares	10-0600	20 Hexagons
10-0302	80 Right Angle Triangles	10-0402	20 Squares with Gimbals & 10 Struts	10-0601	20 Hexagons with cut-out
10-0303	50 Equilateral Triangles (Root 2)	10-0404	40 Rhombus	10-0800	10 Octagons with cut-out
10-0304	60 Triangles & 30 Struts	10-0405	30 Rectangles	10-1001	Wheels Set (4 wheels, mounts & axles)

POLYDRON

FRAMEWORKS



Open framed Polydron

Frameworks is the next generation of Polydron. Its versatility allows the user to build bigger and more complex shapes, and can become a greater ally in helping to explain the nature of space within shapes. Children with basic manipulative skills can easily manoeuvre the pieces with their fingers. The nature of the product allows children to hold the pieces from all angles and so increases the manipulative possibilities. Frameworks combines with Polydron when needed and is equally

versatile when used independently. A full range of sets have been put together that have proved useful in class rooms around the world.

We have recently completed the range by creating the Archimedean solids sets

Suitable for the young and advanced student, who wants to investigate and understand shapes, angles, edges, vertices, planes and tangents.

- Fully supported with literature
- Strong and versatile
- Fits with Polydron
- Easy to use



Polydron Frameworks Platonic Solids Set

A great student set. Build and explore the 5 Platonic Solids all at once.



10-3044

50 Pieces



Polydron Frameworks Basic Set

Enables smaller groups to explore the 3 main shapes; triangles, squares and pentagons.



10-3005F

280 Pieces

▲ Polydron Frameworks Class Set

Ideal for group use. Equilateral triangles, hexagons, squares and pentagons, with storage container and exploring booklet.



10-3031F

310 Pieces



Polydron Frameworks Geometry Set

Ideal for the active classroom. 266 pieces of 7 different mathematical shapes with 2 Polydron protractors. Enables you to build many types of nets, prisms, cuboids and pyramids and cover all the activities in the 'Mathematics with Polydron' Book.



10-3320

266 Pieces



Polydron Frameworks Multi Set

Build structures & geometric solids that allow students to appreciate their internal construction and spaces. Great for any classroom, with storage container and exploring booklet.

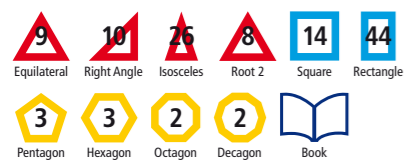


10-3043

460 Pieces

Polydron Frameworks Prism & Pyramid Set

This comprehensive set includes the Octagon and Decagon shapes and is colour coded for easy use. A full set of teachers notes are included with many exercises and extension ideas.



10-3067F 121 Pieces



Polydron Frameworks Archimedean Solids Standard Set

Construct each of the 13 Archimedean Solids.



10-5000FS 160 Pieces

Polydron Frameworks Archimedean Solids Class Set

A great class set. Build and explore the 13 Archimedean Solids all at once.



10-5000FL 452 Pieces

Expand your sets with bulk sets.

10-F300	160 Equilateral Triangles	10-F400	80 Squares	10-F800	18 Octagons
10-F301	80 Isosceles Triangles	10-F405	50 Rectangles	10-F010	12 Decagons
10-F302	100 Right Angle Triangles	10-F500	40 Pentagons	10-1001	Wheels Set (4 wheels, mounts & axles)
10-F303	60 Equilateral Triangles (Root 2)	10-F600	30 Hexagons		



POLYDRON

Mixed Sets

Polydron have combined the three unique systems of Polydron, Frameworks and Sphera to create the ultimate geometric construction system.

These sets dramatically expand the boundaries of design and increase the number of models that can be created.

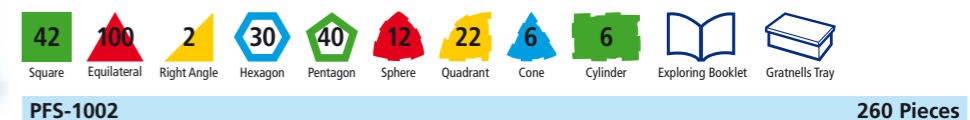
- 3 interchangeable systems
- Polydron - Original and Best
- Frameworks - Open framed Polydron
- Sphera - Spherical Polydron



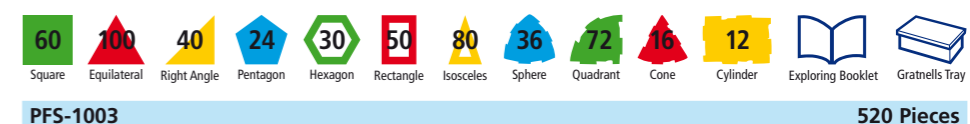
Polydron/Frameworks/Sphera Mixed Set 1



Polydron/Frameworks/Sphera Mixed Set 2



Polydron/Frameworks/Sphera Mixed Set 3



IDEAL FOR GIFTED CHILDREN



POLYDRON

S P H E R A Spherical Polydron



Sphera is the successful addition to the Polydron family of products, bringing all the benefits of Polydron and Frameworks to understanding:

- Spheres
- Cylinders
- Cones
- Fully supported with literature

As you would expect, Polydron Sphera connects with both Polydron and Frameworks. They combine to make the first powerful teaching system to investigate and explore curved shapes. This is a world that can be explored with Polydron Sphera. Our commitment to product gives real solutions to teachers and educators.



BEST SELLER

Polydron Sphera Starter Set

A great way to understand spherical models, build a sphere, hemisphere, cylinder, half cylinder, cone and half cone all at once.



SP-3001

50 Pieces

Polydron Sphera Class Set

An ideal class set to build over 16 different spherical models all at once. A total of 196 pieces in a storage container with booklet.



SP-3003

196 Pieces



Polydron Sphera Class Set Extra

The spherical system for any classroom allowing you to build over 24 different models together. Analyse and dissect the sphere by building 8 different models from this one set. This exercise can also be carried out with cylinders and cones.



SP-3004

276 Pieces

Polydron Sphera Bulk Sets

Expand your sets with bulk sets.

- SP-1001 24 Sphere Pieces
- SP-1002 48 Quadrant Pieces
- SP-1003 32 Cone Pieces
- SP-1004 24 Cylinder Pieces

POLYPHONICS

by the makers of **POLYDRON**

Polyphonics - the brand new literacy product from the makers of Polydron. Specifically designed for use with the latest teaching standards in synthetic phonics.

PolyPhonics has many features and exclusive benefits, including the design which is specifically aimed to help young users hold and grip the product. It fits slightly raised from the desk to allow children to easily get their fingers beneath the pieces and pick them up. The tiles easily fit together for blending sounds to make words, and come apart quickly for segmenting. Letters and graphemes are spaced precisely to help children understand the correct format of words.

Each set is supplied with a fully interactive CD-ROM that is universally accepted by all whiteboards and computers. Polyphonics enhances and adheres to the synthetic phonics method of teaching literacy. It is an ideal classroom tool for teachers, and young literacy learners aged four years and older.

What the experts say:

"This product addresses the latest standards, with links to phases of the letters and sounds document, which is very useful."

Mrs Price, St James Primary C of E, Gloucester, England

"Very multi-sensory... excellent software which is really easy to use"

Kathryn Jessett, Honeywell Infant School, London, England



NEW



- ▶ Interactive teaching system that fully complies with the latest recommended teaching methods
- ▶ A durable quality system that is easy to understand and use
- ▶ Includes a CD-ROM that is universally accepted by all whiteboards and computers
- ▶ **Available now**

PolyPhonics Set

79	20	4	4			
Single Letter	Two Letter	Three Letter	Space	Work Cards	Book	CD-ROM
40-2000						107 Pieces

PolyPhonics Class Set

237	60	12	12			
Single Letter	Two Letter	Three Letter	Space	Work Cards	Book	CD-ROM
40-2010						321 Pieces

POLYDRON

engineer

NEW

- ▶ Lots of new engineering components included
- ▶ Totally unique D & T product that provides clear links between maths and engineering
- ▶ Supplied with complete lesson plans
- ▶ Fully tested by schools and experts
- ▶ Available from Summer 2010



This brand new product from Polydron contains the latest innovations including cams and linkages which allow for the construction of hundreds of realistic models which easily demonstrate engineering principals and the workings of simple machines.

The work cards that come with every set will give teachers the time needed to explore childrens dexterity and understanding of following simple instructions. Children in turn will take a great deal of satisfaction and reward from the construction of the machines pictured on the cards, and from checking their work step by step.

The work cards contain extension ideas which encourage children to explore their own creative ideas using the pieces contained within the sets.

Polydron Engineering stands alone as a first class engineering construction set that enables the user to see links between mathematics and design & technology. One of the unique points about this new and innovative set is that the pieces are completely interactive with current Polydron and Frameworks pieces and so will complement all existing class room stocks.

What the experts say:

"A superior educational building kit."

Parents Choice organisation, USA.

"It's surprisingly difficult to find gear wheels with teeth in simple ratios. Polydron have such a kit... and you can stack wheels to produce gear trains."

Paul Stephenson, The Magic Mathsworks.



POLYDRON bridges



Polydron Bridges gives young civil engineers a chance to build and test several types of bridge designs. Twelve cards provide step-by-step instructions to piece together truss, suspension, cantilever, drawbridge, cablestay, swing and bascule bridges using the plastic construction parts.

This is one of the best construction sets on the market and a must for those who enjoy a challenge.

What the experts say:

"This is a wonderful hands-on tool with connections to math, science and history... a quality product."

Learning Magazine USA.

Polydron Bridges Set Build any of the eight bridges, one at a time.

22 Equilateral, 20 Right Angle, 4 Isosceles, 4 Root 2, 26 Square, 10 Rectangle, 8 Square, 4 Strut 330, 2 Strut 80, 4 Pulley, 2 Handle, 4 Square Hole, 2 Rectangle 2 Holes, 2 Hinge, 8 2 Squares, 4 Eyelet, 2 Plinth, 4 String, 2 Suspension String, Work Cards, Book, Gratnells Tray

10-9010 134 Pieces

Polydron Bridges Class Set Build all of the eight bridges, at the same time.

68 Equilateral, 56 Right Angle, 4 Isosceles, 4 Root 2, 70 Square, 14 Rectangle, 44 Square, 8 Strut 330, 5 Strut 80, 4 Pulley, 2 Handle, 4 Square Hole, 2 Rectangle 2 Holes, 2 Hinge, 8 2 Squares, 6 Eyelet, 15 Plinth, 4 String, 2 Suspension String, Work Cards, Book, Gratnells Tray

10-9030 322 Pieces



POLYDRON TUBS



Polydron Tubs have been developed by listening and reacting to our customers needs and remain a very successful part of our portfolio, being a great way to introduce young children to the world of construction, and eventually geometry.

These tubs are excellent value, class sized kits that will bring quick returns and last for many years. These items have proved to be a great success in retail outlets.



Polydron Midi Tub

12 Right Angle, 5 Square, 20 Equilateral, 13 Square, 24 Equilateral, 6 Isosceles, Guide/Poster, Tub

20-5002R 80 Pieces

Polydron Mega Tub

2 Swivel Joint, 12 Right Angle, 10 Square, 60 Equilateral, 12 Square, 24 Equilateral, 6 Isosceles, Guide/Poster, Tub

20-5003R 126 Pieces



Polydron Mighty Tub

3 Swivel Joint, 24 Right Angle, 20 Square, 80 Equilateral, 24 Square, 48 Equilateral, 12 Isosceles, 4 Axle Mount, 4 Stub Axle, 4 Wheels & Tyres, Guide/Poster, Tub

20-5005R 227 Pieces



OCTOPLAY

Creative play for little hands

Octoplay is an ideal starting point for building simple 3D patterns or complex structures. Octoplay provides an exciting resource for learning about shapes, relationships through patterns and problem solving skills for young children and children with special needs. The eight sided pieces and struts can be easily slotted together and with the addition of the wheels set, moving models are simple. Octoplay will stimulate young minds.

- Offers hours of educational play
- Safe and easy to use
- Excites the imagination
- Develops hand to eye co-ordination



Octoplay Play Pack

144 assorted shapes and struts. 6 different components which slot and slide together in a variety of ways.

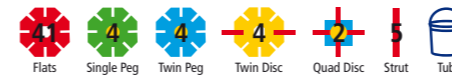


10-8010 144 Pieces



Octoplay Learner Pack

A low cost entry set to the world of Octoplay, includes full instructions.



10-8000 60 Pieces



Octoplay Fun Pack

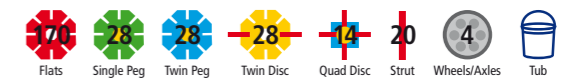
A bumper assortment of Octoplay. 144 assorted shapes, including struts & the wheel set.



10-8020 156 Pieces

Octoplay Action Pack

Stimulate children's imagination with this 300 piece set, including struts & the wheel set.



10-8030 300 Pieces

Octoplay Wheel Pack

4 wheels and 4 axles.



10-8004 8 Pieces



Octoplay Work Cards

New work cards have been introduced to complement the Octoplay range. Their easy to follow graphics will set children on the road to exploring their creative instincts and developing important manipulative skills.

10-8100



GYROCUT

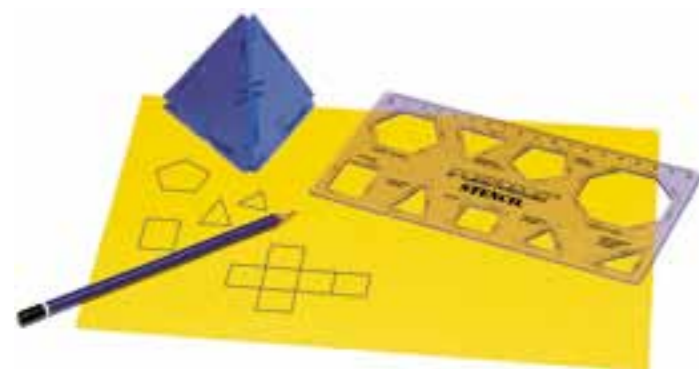
Cutting curves with precision

Gyro-Cut is a precision cutting instrument with a 360° rotating cutting blade. It is designed for cutting paper, film and other thin sheet materials. Lightweight and comfortable to hold, the Gyro-Cut is designed for right and left handed use. Due to its unique design and operating features there are many areas where Gyro-Cut can be used including:

- Decoupage
- Graphic Design
- Freehand Design and Cutting
- Air Brush Masking
- Paper Engineering
- Mock-up Packaging
- Paper Cutting
- Craft Work
- Reprographics



30-1000



Protractor 3-Dimensional

Brings angles to life! The unique patented Protractor is perfect for measuring the angles on Polydron and other applications. Measures angles from 45° to 180°.

10-0900



Stencil - Pack of 10

Draw and name the 8 basic polydron shapes and design nets for potential models.

10-0122

10 Pieces

Books

Our books are written by education professionals to support the mathematical application of Polydron in the classroom. They include lesson plans, photocopiable exercises, glossary and fun activities.



Using Polydron ages 5-7 Book 1

10-0144 32 Pages

Using Polydron ages 8-11 Book 2

10-0145 32 Pages

Using Polydron Sphera ages 7-11 Book 1

SP-0100 32 Pages

Mathematics with Polydron ages 10-14

10-0112 110 Pages

Platonics with Frameworks

10-0126 48 Pages

Focusing on the construction and properties of 2D and 3D models. Clear and simple activity pages allow access at many levels. Offers support and guidance on vocabulary, prior knowledge and extension work. Satisfies the requirements of the National Numeracy Framework in England.

Encourages an inquisitive approach to maths while working in a practical way with Polydron.

Examines the 5 Platonic solids through illustrated construction and measurement activities.

Time Teachers

Big time fun!

A robust range of teaching clocks enabling children to grasp and understand the difficult concept of time.

- Tough and durable for hands-on use
- Options available to customise
- Complete with Teachers Activity Guide
- Enabling children to progress from simple to more advanced time concepts
- An excellent teaching resource

Manual Clock

An excellent teaching tool that has a unique manual friction geared movement instead of a quartz one.

10-2001

Kinder Clock

- Construct your own clock
- Teaches number sequence
- Unique manual friction geared movement
- Complete with hanging frame

10-2000



Quartz Clock

- Free standing or wall hanging
- Quality quartz movement - hands can also be moved manually
- Hour, minute and second hands
- Four interchangeable time faces:
 - 12 hour numerals (1 to 12)
 - 24 hour numerals (13 to 24)
 - Roman numerals (I to XII)
 - Words (five past to o'clock)

10-2002



POLYDRON

Should you require further information please contact us.

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