# Morphan

# There's More to Morphun!





# Morphun Multiple Award Winning Construction Sets for your Classroom



















With reviews and advice from educational professionals

Dr Amanda Gummer, Denny Taylor and others.

Morphun have studied many of the important professional references to the value of construction toys in education as set out in articles and reports all over the world. These and the kind and helpful comments to the two experts below help us add to and improve our designs and make the work cards and many instructions we provide.

# Dr. Amanda Gummer - Research Psychologist

Our first expert below that has reviewed our products and tested them in a classroom setting is Dr Amanda Gummer. Of the many references on the internet to her and her work I will quote just one here. It says she is "the UK's leading expert on play, play development and child development".



'Amanda is a research psychologist specialising in child development. She is a member of the Play Research Network, The International Toy Research Association, Play England and the National Toy Council and has been involved with British parliamentary policy on children's issues'.

This is her kind report on review of Morphun. Dr Gummer has read the second report attached by Denny Taylor and strongly agrees with it and the many useful points made.

"Morphun - the flexible construction sets that appeal to boys and girls" Dr. Amanda Gummer.

#### What is Morphun?

Morphun is a versatile construction set that promotes creativity and enhances children's holistic development through play. Comprising equilateral triangles, squares and wheels that connect to each other directly or with the use of the ingenious joiner rods, *Morphun takes construction play to a new level*. The size, weight and design of the sets makes them accessible to very young children who quickly grasp the techniques to join the pieces together. As well as an engaging toy for construction play, Morphun is a valuable classroom resource and is designed to promote child development.

#### How does Morphun differ from other construction toys?

Morphun bricks provide children with a wide range of building options. Blocks can be joined on any surface (rather than the traditional top and bottom surfaces of most construction blocks). The connector pieces and the wheels provide more flexibility to make a wide range of shapes and models with *greater scope for develop mental progression* including opportunities to learn about engineering principles. The wide age range that this appeals to and engages also sets it apart from other construction toys. (Ages 3-10). The 12-grooved joiners allow angled positioning of pieces to create curves, acute and obtuse angles and open up a huge world of possibilities for construction play.

#### How does Morphun promote children's development?

Morphun promotes development across physical, cognitive and social skills including:

**Physical** 

- Manual dexterity
- Fine motor skills
- Arm and hand muscle development

All important for handwriting, artistic skills and small, precise movements.

Cognitive

- Shape, colour and pattern recognition
- Counting
- Sorting

All important for basic mathematics

Life skills

- Creativity
- Imagination
- Problem solving and logical thinking

All important for self expression and confidence.

Social

- Teamwork and cooperation
- Communication
- Sharing and turn taking

All important for social development.





One of the key characteristics of a successful learner is confidence. Children gain confidence through positive reinforcement and achievable successes.

**Morphun offers children the opportunity to boost their confidence** as the easy-to-master construction techniques are accessible to children as young as 3 and once they know how to attach the pieces together, their creativity can be given free reign.

The construction possibilities with Morphun are almost limitless and so children are able to quickly create objects, patterns and pictures that will help them gain in confidence and approach life with a can-do attitude.

#### **Differentiation**

Within any group of children there will be different ages, abilities, characters and preferences. Flexible toys such as Morphun enable children to play and learn at a level that suits them, and develop at their own rate. Playing with Morphun in small groups **helps children learn from each other** and more able children are able to develop leadership skills by helping younger or less able children with their constructions.

As a flexible toy with both instructions and free play opportunities Morphun can be accessed on a number of levels:

#### Basic

Colour recognitions and 2D patterns are the simplest play pattern and will get children used to the sliding mechanism as well as the more familiar stacking option.

#### Intermediate

2 and 3D shapes such as the butterfly are easily achievable and give immediate positive reinforcement, encouraging children to challenge themselves to try more advanced constructions.

#### Advanced

Complex 3D shapes with moving parts and mechanisms can be constructed and children can gain understanding of the physical world and engineering principles.

It is also appropriate for solitary or group work, both types of play come with their own benefits.

**Solitary play** - imagination and self expression are free to develop as a child is constrained only by the contents of the Morphun box and his or her imagination. Confidence and self esteem are most enhanced when a creation is entirely the child's own work.

**Collaborative play** - team work, planning, communication, negotiation and cooperation are all promoted through joint efforts and less able children are able to learn quickly from being involved in a more advanced project than they would be able to complete alone.

Children can embark on a project, leaving it and returning to it, thus developing skills such as perseverance, concentration and reflection leading to adaptation and improvement - powerful learning techniques for the future.

#### Morphun as a teaching aid

In a classroom setting, Morphun can be used as part of a range of lessons and helps promote learning through play: the most powerful pedagogical tool. Here are just a few examples:

#### **Numeracy**

Shape sorting, counting, ordering and pattern making and recognition all form part of the Early Years' numeracy curriculum.

Teacher tip: Use repeating patterns to help children learn their times tables - if every 3rd piece is a red triangle, children can count the pieces and learn their 3 times tables.

#### Literacy

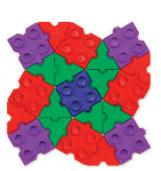
Learning the language of shapes and prepositions of place (next to, above etc) improves vocabulary. For more advanced children, writing instructions on how to make their construction can make literacy lessons much more accessible to kinaesthetic learners.

Teacher tip: To encourage narrative skills and comprehension, ask children to write an imaginative story about their construction.

#### **Art and Design**

Allowing children free range to design and make their own creations will make such skills accessible to young children and enable more able children to develop their skills.

Teacher tip: Bring in an object and ask children to make a model of it - umbrellas, bananas, and other toys make good props for this.









Morphun has won many educational awards and we also take notice and learn from feedback from the testers. In this recent USA 'Brain Child' award.

#### The judges reported:



"There are a number of things that set this product apart from many other building sets on the market. One is the high level of structured guidance provided. The Guide Book includes more than 60 pages of easy-to-follow photographs showing, step-by-step, how to build an immense variety of models (letters, animals, autos, boats, dinosaurs, and lots more). In addition, six incrementally difficult instruction sheets show dozens more models to be built. The 400 patented, side-joining, rainbow-colored building bricks that make all

this possible come neatly packaged in an attractive, portable tub. These squares, triangles, and wheels connect and disconnect with one another easily, yet create remarkably secure structures, a real plus for young children. The bricks, sized just right for the small hands for which they are intended, are equally well-suited for free play in which kids just start building and see what unfolds. The extraordinarily well-organized Guide Book provides experience that builds the intellect and frees the imagination to go on to bigger and greater things."

Celebrates the versatility of Morphun and describes its key features.

Describes its potential for creative play and promoting learning in key school subjects.

Provides a rationale for using Morphun in the classroom, and some guidance for teachers about planning, organising and managing class work

# **Denny Taylor - Senior Lecturer in Teaching Studies**

Denny Taylor was a Senior Lecturer in Teaching Studies at a University in England. She taught for eighteen years in primary schools and was an Advisory Teacher for Primary Mathematics. She has a Bachelor of Education Degree with First Class Honours and a Master of Arts in Applied Educational Studies. She has conducted research into teaching and learning at York University.

Morphun is an exciting two and three dimensional construction material which is fun to use, but which also has excellent potential for learning, particularly in mathematics, science and technology. It is not surprising that they have won many awards. More versatile than, and yet compatible with its leading block brick competitors - Denny Taylor says that Morphun will;

- Excite children and challenge their thinking. Provide children with a practical means of modelling and expressing their ideas.
- Develop children's fine manipulative skills and hand eye co-ordination.
- Allow children to explore flexibility of form and movement.
- Provide a vehicle for learning in mathematics, science and technology.
- Develop children's social, communication, teamwork and ways of working skills by providing opportunities for children to work together in teams and share their ideas.
- Extend children's use of technical and mathematical language through enjoyable play, practical activity and investigation.
- Develop both generic and specific problem solving skills.



# There's More to Morphun

**Morphun is so easy to handle and fix** that children quickly become very adept at building simple and then complex models. The square shaped bricks, offer building on six surfaces, rather than the usual two offered by many other construction blocks.







Equilateral triangles (60) and squares (90) are both divisible by 30 degrees and so the construction possibilities are huge.

In addition to the square and triangle, the advanced sets flat topped bricks and the short square bricks make it possible to makes cubes and achieve much greater flexibility of shape than is possible with other construction materials. Bricks can be joined horizontally as well as vertically, in a multitude of ways, to create three dimensional shapes and models.





A single square Morphun brick can be joined with one joiner to one other square brick in well over fifty ways. (Six would be the maximum number of combinations for a traditional brick.) Creating curves spirals and circles is simple with Morphun, this would be impossible with traditional constructional materials of this type.

**The design of the Morphun joiners is just brilliant.** These twelve sided joiner pieces, are easy to use, and are wonderfully versatile.



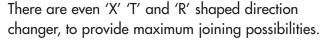








They can be used to join bricks side to side in many positions, or be located in the underside of advanced bricks either centrally or in any corner. Because the joiners are twelve sided, they offer twelve possible positions for joining.









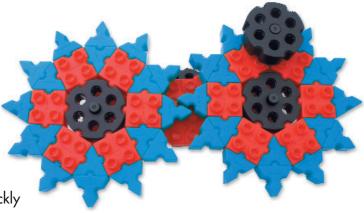
# Morphun exploring design and modelling

With wheels, *children start to build creations that move*, so that they may begin to explore working mechanical areas and movement. Morphun provides a practical means of exploring design and modelling, and expressing ideas.



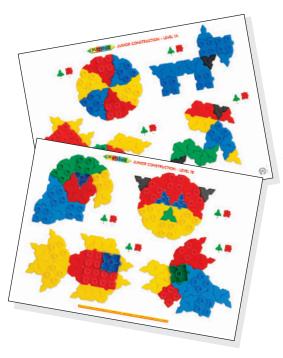


Shared activities with *Morphun present opportunities for teamwork* and discussion of solutions and ideas. With older children this discussion can go beyond description and evaluation. It could for example be used to explore and explain the key features of models, gears, shapes, or structures.



When working with construction materials children will progress quickly from play to more structured activity.

Children will progress from modelling their own ideas and evaluating and modifying these to design work and/or following Morphun instruction sheets.



Morphun brings a whole new exciting dimension to the world of modular construction. It's compatible with, and yet much more versatile than its leading competitors. It's fun, it's educational, it fuels the imagination. There is just more to do and make with Morphun. Have more fun with Morphun.















## Working with Morphun in the Classroom

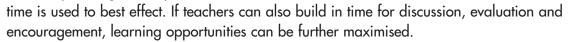
**Morphun is an exciting new classroom resource for teachers**, which can be used to enhance learning in many key areas of the curriculum. However, if children's initial play experiences are to be extended, and work is to be suitably structured,

Group activities with Morphun present opportunities for co-operative learning, problem solving, decision making, team work and role play. They can also be a stimulus for discussion and language

activities must be carefully planned and managed.

extension.

Ideally, children should have time to complete, play with and enjoy their creations. As with all other teaching and learning experiences, effective planning will help ensure that



It is important that teachers familiarise and make some models themselves with Morphun, so that they can appreciate its incredible versatility. Working with any construction material, even one as simple to use as Morphun, *helps children develop hand eye co-ordination and manipulative skills*. It is important that children receive a good introduction to the sets and get accustomed to the joining and separating of the pieces.

Children or teams should be presented with the exact pieces required to make a particular model, and have the assembly process explained and discussed before they start. This will include reviewing the pictures or stage by stage guide to construction and the illustration of what the finished product should look like.

Work cards and instructions are enough for most children. The children need the ability to match colour, shape and size and the ability to recognise and interpret a 2D representation of a 3D shape. The sets will help develop these skills.



### Working with Morphun in the Classroom

Assessing children's work with Morphun is simple. There is perhaps a misconception in some teachers that learning can only be confirmed by a visible end product, such as a written page, a recognisable drawing, or a functional model. With work with constructional materials, assessment of results should be more concerned with seeing that there was good thinking, good teamwork or strong communicating as well as how the work was attempted or done.



Appropriate strategies for assessment might include scores for observation and planning of each task, watching the ongoing work as well as reviewing finished or part finished products.

Research has demonstrated, and teachers know, that it is interest, fascination, fun (Morphun) and a need to know that facilitates learning. The more hands on first hand experience that children can have of the world around them, the more their understanding of that world will grow.

**Morphun has the capacity to inspire learning**, to explain and explore, not only what can be seen and touched, but also that, which perhaps, can only be imagined.

Morphun will undoubtedly prove popular with both children and teachers alike.





Junior Starter, Junior Starter Rainbow, Junior, Junior Xtra, Advanced and Advanced Xtra construction sets and other Morphun educational products are from Thinkplay Ltd. London, England.



# Morphan

Thinkplay Ltd. 7 Chesterfield Road, Chiswick, London W4 3HG, UK. Contact us at www.morphun.com/contact.php or visit www.morphun.com/

All Products are EN71 Tested.
For ASTM and CPSIA - please apply for details. Patents Granted.



Hi-Q<sup>®</sup> – The Thinkplay sign of our guarantee of long life, high quality, and intelligent educational innovation and value for children see www.hi-q.org.uk for details of our guarantee.





LT058 V3 10/14