

Moovl

Moovl is an interactive unique online tool which allows children to create images that move according to the dynamics of a simple set of physics rules. Designed for the early primary school years, it is intended as a creative thinking and communication resource with applications for science, literacy and problem-solving.



Partners

Soda Creative
Futurelab



Moovl interface

Outline

Moovl is a freeform drawing resource designed for young children to explore and communicate their understanding of dynamic phenomena or to create animated storyboards. Its name literally means 'moving doodles'. An open drawing slate is accompanied by a palette of animation tools. The drawing palette does not only control the colour of drawn shapes and letters, it also imbues objects with simulated physical properties such as heaviness, stiffness, friction and hardness.

The easy-to-use interface means that very young children are able to visualise their ideas about a range of dynamic phenomena. This can take the form of simply operating the dynamic functions and observing the effects, or of programming images with specific animations.

An online 'scrapbook' facility accompanies the drawing environment, where children can save their own images and access those created by other children, or borrow a library of ready-made images to help them along. The library also proves valuable for busy teachers, who can select existing images and animations, as well as lesson plans and activities that can be used flexibly in the classroom.

Moovl is now released in a partnership between its originators Soda Creative and educational publisher Rigby (part of Harcourt Education) with support from Futurelab. Two years in development and research trials, Moovl is now equipped with a suite of cross-curricular tools and activities.

For primary science learning, Moovl supports children to externalise some of their ideas about dynamic phenomena such as collisions between objects, or to make visual a life cycle or process such as a caterpillar maturing into a butterfly.

For literacy learning, it can be used to animate verbs and adjectives and to explore metaphorical expressions, such as jumping as fast as a grasshopper or falling as slowly as a feather, or to design characters and map out narratives to support creative writing.

Moovl can also provide children with the opportunity to mobilise their problem-solving skills, for example by drawing a structure to catch rainwater, or to motivate their creative expression.

Research and Development

The developers of Moovl, Soda Creative, worked closely with Futurelab during the initial development and research for the project. Futurelab was particularly interested in exploring how Moovl could be used practically in the classroom, and its research scheme analysed its use in Key Stage 1 science and literacy, as well as its potential as a cross-curricular resource to motivate young children's creativity.

Using a preliminary Moovl prototype, Futurelab carried out a number of usability trials at schools in Bristol and south London with children in KS1 and their teachers in order to inform its future development. Children provided feedback on the features they liked or they did not understand, and were observed using the software in order to gauge its strengths and limitations. Teachers also devised and tried out a number of practical activities, helping to shape a greater sense of Moovl's place in the classroom and KS1 curriculum.

Subsequent full trials of the full working prototype were carried out by Futurelab in the same schools with over 60 KS1 children. These trials took place using tablet PCs. The results of these trials indicated how Moovl could be used as a tool to support children's problem-solving, their design of narrative ideas, and as a resource to visualise their understandings of dynamics.

The online capacity of Moovl was also trialled, with the research indicating how much young children value being able to share their drawings with each other, and how this functionality can assist them to develop more complex ideas through manipulating the animations and through the dialogue this inspired.

Availability

Moovl can be used on a normal desktop PC, on a tablet PC, or on an interactive whiteboard. A working demo of Moovl is available at www.moovl.com, and the full software package, with teaching activities and a library of ready-made images, is available to download for £100 per year for the whole school from Rigby: www.moovl.co.uk. This website will also provide updated and new resources as Moovl is used in classrooms.

This idea was submitted to Futurelab's Call for Ideas programme by Soda Creative.



Students collaborating on a drawing



A Moovl creation

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