# Technology that 'thinks' and sets children's work

## Fact Sheet

Behind well-written content and an engaging, fun interface is our true power: in-built intelligence which recreates the decision-making process of a teacher working on a one-to-basis. DoodleMaths and DoodleEnglish continually assess a child's strengths and weaknesses, identifying gaps in their knowledge and assigning work that is just at the right level. We call this intelligence Proxima™.

**Proxima™ uses algorithms to analyse a child's knowledge and understanding to design a learning programme unique to them.**

## How does it work?

Proxima™
The power inside that analyses and intelligently designs a unique learning programme for a child as they progress through the whole KS1 and KS2 national curriculum.

Empowering teachers
We understand the power of the data we collect and analyse, so as well using it to design a child's learning programme, we present it to the class teacher via our dashboard.
Rich information tells you how each member of your class understands the curriculum which can be used to inform your planning, teaching and reporting.

Together we can make a big impact on the progress of your class.

### Initial analysis

When a child gets started, they're asked to input a few basic pieces of information which determines the first few questions they answer. Data relating to their responses - time taken, right and wrong answers, misconceptions - is analysed to build up a picture of a child's understanding. Initially, questions are achievable, but as the child builds in confidence and Proxima™ gets closer to establishing their learning needs, questions become harder and more probing.

### Across the whole national curriculum

Every question asked is aligned with an Age-Related Expectation in the national curriculum. The responses to these questions allow us to determine two things: first, a child's Zone of Proximal Development - that is, the narrow band between what a child can do unaided and what they can't do; second, their weaker areas - concepts within the national curriculum in which they develop a poorer grasp. Over time, enough data is collected for the 'design' part of the algorithm to take effect.

### Designing a learning programme unique to each child

Proxima™ creates a child's work programme using three different types of exercise, depending on what's needed. 7-a-day is used to check previous knowledge and identify further weak areas; New this Week introduces new content when they are ready to move on; Added Extras is presented when a weaker area, that needs remediating, is identified. Different children work at different paces - this is recognised too. Every child is unique: with our technology, no two children in your class will ever have the same work programme.

### Decision-making algorithms created by teachers

As teachers, we know how fragile children's confidence can be - especially when it comes to maths - and so content is very carefully selected to both guarantee progression and address their weaker areas, whilst still ensuring a suitable degree of success.

An interlinking content database works alongside our algorithms. We understand that prior to teaching children about adverbs, we may need to recap verbs. We know that if a child is finding bonds to 100 difficult, we may need to scaffold by starting with bonding multiples of 10, then multiples of 5.

The decisions that we would as teachers make when working with an individual child are replicated by the decision-making processes of Proxima™.

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