

## **STEMpowered Company Description**

In a time when the U.S. is lacking in STEM strength (science, technology, engineering and math) STEMpowered is all about *empowering* students to pursue *STEM*- hence the name *STEMpowered*. STEMpowered is taking a unique approach to this problem by tackling an underrepresented skillset that is linked to later success in STEM-this skillset is called spatial skills. Spatial skills include the ability to understand 3D objects and their relative positions in space. Think parallel parking and playing Tetris-the skills you use doing these activities are examples of spatial skills. Spatial skills start developing very early in a child's life but the connection between early spatial skill development and later success in STEM is not well known. STEMpowered aims to change that by creating innovative, spatial skill inspired products for children. We hope that by developing spatial skills early on that more students will be prepared to pursue STEM fields of study.

## **Stackablz Flagship Product Description**

Stackablz are STEMpowered's first product line. Stackablz are 3D puzzles paired with a storybook for children 3 and up. There are two kinds of puzzles. First there are the 3D animal shapes sliced in non-obvious ways. The pieces of the animal puzzle are equipped with magnets, so that when the child correctly assembles the final shape the puzzle will stay intact. Then, there are 3D geometric puzzles, which are intertwined in the storyline to promote exposure to geometric shape recognition.

The story is a spatial adventure book that takes the child on a journey to locate the missing pieces of the animal puzzle. Along the way the child is exposed to position words such as "across", "behind" and "next to." The child is also taught geometric shape names. Once the child has read the story and located all of the missing puzzle pieces, he or she can then physically assemble the animal puzzle in real life! If a child has trouble assembling the puzzle he or she can refer to the picture card for assistance. The picture card shows the final animal shape but does not indicate the correct orientation/positioning of the puzzle pieces -leaving room for trial and error as well as problem solving. Stackablz address some of the early Common Core geometry requirements involving composing and decomposing 3D shapes-so they are a great addition to early childhood classrooms. Keep an eye out for more animal puzzles and spatial adventure books!