



DT

Year 3 Knowledge Organiser - Ready to Pop!

Key Questions



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Vocabulary

Key Vocabulary	Definition
Animated	Made to move or give the appearance of movement.
Linkages	A system of links
Exploded drawing	A drawing of an object that shows the relationship to other parts.
Function	A natural purpose of something.
Consumer	A person who purchases goods and services for personal use.
Slider	A knob or lever that is moved to control something.
Process	A series of actions carried out to achieve a particular result.

How is the mechanism connected and how does it work?

What is the purpose of the product and the lever?

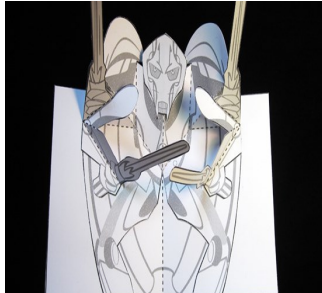
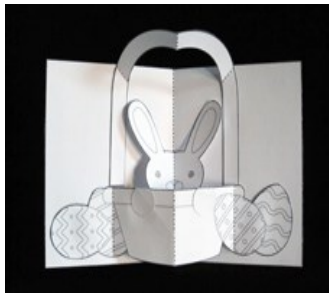
Who is the audience of this product?

Key paper engineer Matthew Reinhart

1971-present



Work Examples



Timeline



Key Facts
Matthew is an illustrator of children's pop-up books and picture books.
His most recent books include Frozen: a Pop-up Adventure and Lego Pop-up: A Journey to the Lego Universe.
In 2008 Matthew was honoured as the best paper engineer for his book "Star Wars-Pop-up Guide to the Galaxy"
Matthew uses Adobe Illustrator to trace the original pop ups then he uses die lines which act like a cookie cutter that punches out all the pieces for a pop-up book.
One of the mechanisms he relies on is the "v-fold," a little folded triangle of paper securing a pop-up to the page, allowing it to move in an arc as the page is opened.
By varying the angle of the v-folds behind each component, Reinhart can adjust when and how each piece will appear as the page is turned. Some of Reinhart's pop-ups use as many as 20 v-folds, many of them building off of each other to make movement possible.
Matthew says "the most important skill in paper engineering is problem solving." He says it is important to find ways to fix the problem if the pop up doesn't work.
His dream is to create the ultimate pop-up body book .